



Verification Report

- 1ST PERIODIC –

WORLD VISION ETHIOPIA

HUMBO ETHIOPIA ASSISTED NATURAL REGENERATION
PROJECT

UNFCCC REF. No. : 2712

Monitoring Period: 2006-12-01 to 2011-12-01
(incl. both days)

Report No: 8000393302 – 11/119

Date: 2012-06-29

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|--|--|--|--|--|
| Verification Report: | Report No. 8000393302 – 11/119 | Rev. No. 0 | Date of 1st issue: 2012-06-26 | Date of this rev. 2012-06-29 |
| Project: | Title: Humbo Ethiopia Assisted Natural Regeneration Project | Registration date: 2009-12-07 | | UNFCCC-No.: 2712 |
| | Host Country: Ethiopia | Verification No.: 1st periodic verification | | |
| | Crediting period: <input type="checkbox"/> Renewable (20y) <input checked="" type="checkbox"/> Fixed (30y) | From: 2006-12-01 | To.: 2036-11-30 | |
| | Project Scale: <input checked="" type="checkbox"/> Large Scale <input type="checkbox"/> Small Scale | | | |
| | Host Party: World Vision Ethiopia | Other involved Parties: Canada, International Bank for Reconstruction and Development as Trustee of the BioCarbon Fund | | |
| | Client: IBRD (World Bank) as a trustee of the BioCarbon Fund | Project Owner: World Vision Ethiopia | | |
| | Applied methodology/ies: | Title: Afforestation and reforestation of degraded land through tree planting, assisted natural regeneration and control of animal grazing | No.: AR-AM0003 ver. 4 | Scope(s) / TA(s) 14 / 14.1 |
| Monitoring: | Monitoring period (MP): 2006-12-01 to 2011-12-01 both days included | No. of days: 1827 | MP No. 1 | |
| Monitoring report: | Title: Humbo Ethiopia Assisted Natural Regeneration Project | Draft version: 2012-01-12 | Final version: 2012-06-27 | |
| Verification team / Technical Review and Final Approval | Verification Team: Alexandra Nebel (TL) Davinah Uwella- Milenge (ETE) | Technical review: Ashwin A.S. Rainer Winter | Final approval: Rainer Winter | |
| Temporary Emission removals: [t CO_{2e}] | Verified amount 73,339 t CO _{2e} | As per draft MR: 73,138 t CO _{2e} | As per PDD: 69,868 t /5years | |
| Summary of Verification Opinion: | <p>IBRD (World Bank) as a trustee of the BioCarbon Fund has commissioned the TÜV NORD JI/CDM Certification Program to carry out the 1st periodic verification of the project: "Humbo Ethiopia Assisted Natural Regeneration Project", with regard to the relevant requirements for AR CDM project activities.</p> <p>As a result of this verification, the verifier confirms that:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> all operations of the project are implemented and installed as planned and described in the validated project design document, <input checked="" type="checkbox"/> the monitoring plan is in accordance with the applied approved CDM methodology, <input checked="" type="checkbox"/> the equipment essential for measuring parameters required for calculating emission removals are "calibrated" as per best forest practice, <input checked="" type="checkbox"/> the monitoring system is in place and functional. The project has generated temporary GHG emission removals (tCERs), and <input checked="" type="checkbox"/> the GHG emission removals are calculated without material misstatements in a conservative and appropriate manner. <p>TÜV NORD JI/CDM CP herewith confirms that the project has achieved emission removals in the above mentioned reporting period as follows:</p> | | | |



| | | |
|----------------------------------|--|----------------------|
| | Emission removals: 73,339 t tCO _{2e} CO_{2e} | |
| Document information: | <i>Filename:</i> | <i>No. of pages:</i> |
| | 2012-06-29 FVR Humbo_final.doc | 143 |

Abbreviations:

| | |
|-------------------------|--|
| ARDFCO | Ethiopian Agricultural Rural Development and Forestry Coordination Office |
| A/R | Afforestation/Reforestation |
| CAR | Corrective Action Request |
| CDM | Clean Development Mechanism |
| CER | Certified Emission Reduction (Removal) |
| t-CER | Temporary Certified Emission Reduction (Removal) |
| I-CER | Long-term Certified Emission Reduction (Removal) |
| CO₂ | Carbon dioxide |
| CO_{2eq} | Carbon dioxide equivalent |
| CL | Clarification Request |
| DBH | Tree Diameter at Breast Height |
| ER | Emission Reduction/Removal |
| FAR | Forward Action Request |
| FMNR | Farmer managed natural regeneration technique |
| GHG | Greenhouse gas(es) |
| GPG | Good Practice Guide |
| ha | Hectare |
| IBRD | International Bank for Reconstruction and Development |
| LULUCF | Land use, land use change and forestry |
| MP | Monitoring Plan |
| MR | Monitoring Report |
| PDD | Project Design Document |
| PP | Project Participant |
| QA/QC | Quality Assurance / Quality Control |
| SAMRT | Simplified Monitoring Afforestation/Reforestation Tool |
| UNFCCC | United Nations Framework Convention on Climate Change |
| WB | World Bank |
| WV | World Vision |
| XLS | Emission Removal Calculation Spread Sheet |

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1. INTRODUCTION

IBRD (World Bank) as a trustee of the BioCarbon Fund has commissioned the TÜV NORD JI/CDM Certification Program (CP) to carry out the 1st periodic verification of the project

“Humbo Ethiopia Assisted Natural Regeneration Project”

with regard to the relevant requirements for CDM project activities. The verifiers have reviewed the implementation of the monitoring plan (MP) in the registered CDM project.

GHG data for the monitoring period was verified in detailed manner applying the set of requirements, audit practices and principles as required under the Validation and Verification Manual ^{/VVM/} of the UNFCCC.

This report summarizes the findings and conclusions of this 1st periodic verification of the above mentioned UNFCCC registered project activity.

1.1. Objective

The objective of the verification is the review and ex-post determination by an independent entity of the GHG emission removals. It includes the verification of the:

- implementation and operation of the project activity as given in the PDD,
- compliance with applied approved methodology and the provisions of the monitoring plan,
- data given in the monitoring report by checking the monitoring records, the emissions removal calculation and supporting evidence,
- accuracy of the monitoring equipment,
- quality of evidence,
- significance of reporting risks and risks of material misstatements.

1.2. Scope

The verification of this registered project is based on the validated project design document ^{/PDD/}, the monitoring report ^{/MR/}, emission removal calculation spread sheet ^{/XLS/}, supporting documents made available to the verifier and information collected through performing interviews and during the on-site assessment. Furthermore publicly available information was considered as far as available and required.

The verification is carried out on the basis of the following requirements, applicable for this project activity:

- Article 12 of the Kyoto Protocol ^{/KP/},
- guidelines for the implementation of Article 12 of the Kyoto Protocol as presented in the Marrakech Accords under decision 3/CMP.1 ^{/MA/}, and subsequent decisions made by the Executive Board and COP/MOP,



- other relevant rules, including the host country legislation,
- CDM Validation and Verification Manual ^{/VVM/},
- monitoring plan as given in the registered PDD ^{/PDD/},
- Approved AR CDM Methodology AR-AM0003 ver.4: Afforestation and reforestation of degraded land through tree planting, assisted natural regeneration and control of animal grazing.

2. GHG PROJECT DESCRIPTION

2.1. Technical Project Description

The project activity has been implemented to regenerate natural forests by using the so called farmer managed natural regeneration technique (FMNR). Further the project shall reduce and avoid erosion and flooding and enhance biodiversity in the region. The following measures have been implemented to achieve these goals: Restoration of approximately 2728 ha of biodiversity natural forests, community management, formation of community cooperative societies, monitoring system to monitor carbon stock changes and environmental and social issues.

The key parameters of the project are given in Table 2-1:

Table 2-1: Technical data of the project activity

| Parameter | Unit | Value |
|--------------------------------|----------------|---|
| No. of forest sites | quantity | 1 |
| Total forest area | ha | 2,728.01 (PDD 2,728.08) |
| No. of strata | quantity | 5 |
| Tree species (scientific name) | Name | Planted: <i>Eucalyptus globules</i> , <i>Gravillea robusta</i> Natural regeneration: <i>Several (see MR and PDD)</i> |
| Planting distance | m | Depends on trees and local conditions (availability of natural regeneration) |
| Hole dimension | m | 0.3 x 0.3 x 0.2 |
| No. of sample plots | quantity | (85) |
| Size of sample plot | m ² | 3.14 m (r= 1m); 50.26 m (r= 4m); 615.75 (r= 14m); 1256 (r=20m)) |

The project implementation took place phase wise from 2007 to 2011. The phase wise implementation is mainly related to plantation areas with *Eucalyptus globulus* and *Gravillea robusta* which are small patches of bare land within the natural regeneration areas. The natural regeneration has been protected since first agreements with the communities have been signed and cooperatives have been established.

During the implementation no slash and burn or fertilisation practice has been used /IM03/IM01/. Further hole digging was reduced to a minimum necessary for tree planting (0.3m x 0.3m x 0.2m) to avoid carbon emissions from the soil.

The transportation of the seedling to the site has mainly been done by human or donkeys. In some few cases trucks have been used.

Due to the variety of species the habitat for flora and fauna was intended to be improved.

The technical implementation of the projects has been carried out as given in the registered PDD, apart from site specific adaptation of planting (species and no. of

trees). All implementation steps have been duly recorded. No threats on the applicability criteria of the methodology could be observed.

2.2. Project Verification History

Essential events since the registration of the project are presented in the following Table 2-2.

Table 2-2: Project verification history

| # | Item | Time | Status |
|---|-----------------------------------|-----------------------------|-------------|
| 1 | Date of registration | 2009-12-07 | registered |
| 2 | Start of crediting period | 2006-12-01 | implemented |
| 3 | Initial verification site visit | 2011-04-04 to 2011-04-08 | finalized |
| 5 | 1 st Monitoring period | 2006-12-01 to 2011-12-01 | RfIssuance |

2.3. Involved Parties and Project Participants

The following parties to the Kyoto Protocol and project participants are involved in this project activity (Table 2-3).

Table 2-3: Project Parties and project participants

| Characteristic | Party | Project Participant |
|--------------------------|---|--|
| Host party | Federal Democratic Republic of Ethiopia | World Vision Ethiopia |
| Other involved party/ies | Canada | Canada, International Bank for Reconstruction and Development as Trustee of the BioCarbon Fund |
| Other involved party/ies | several | As per UNFCCC website project no. 2712 |

2.4. Project Location

The details of the project location are given in Table 2-4:

Table 2-4: Project Location*

| No. | Project Location |
|---------------------------|----------------------------|
| Host Country | Ethiopia |
| Region: | Humbo Woreda |
| Project location address: | Community of Humbo |
| Latitude/ Longitude | one forest site (2,728 ha) |



| | |
|--|--|
| | From 06°46'48" to 06°41'04"N From 37°48'35" to 37°55'14"E |
|--|--|

*Detailed coordinates of polygons as per Annex of the MR "Project area data.xls"

3. METHODOLOGY AND VERIFICATION SEQUENCE

3.1. Verification Steps

The verification consisted of the following steps:

- Contract review
- Appointment of team members and technical reviewers
- Publication of the monitoring report
- A desk review of the Monitoring Report^{/MR/} submitted by the client and additional supporting documents with the use of customised verification protocol^{/CPM/} according to the Validation and Verification Manual^{/VVM/},
- Verification planning,
- On-Site assessment,
- Background investigation and follow-up interviews with personnel of the project developer and its contractors,
- Draft verification reporting
- Resolution of corrective actions (if any)
- Final verification reporting
- Technical review
- Final approval of the verification.

The sequence of the verification is given in the Table 3-1 below:

Table 3-1: Verification sequence Table

| Topic | Time |
|----------------------------------|-----------------------------|
| Assignment of verification | 2011-02-28 |
| Publication of Monitoring Report | 2012-01-13 |
| On-site visit | 2012-01-30 to 2012-02-03 |
| Draft reporting finalised | 2012-02-10 |
| Final reporting finalised | 2012-05-24 |
| Technical review finalised | 2012-06-29 |

3.2. Contract review

To assure that

- the project falls within the scopes for which accreditation is held,

- the necessary competences to carry out the verification can be provided,
- Impartiality issues are clear and in line with the CDM accreditation requirements

A contract review was carried out before the contract was signed.

3.3. Appointment of team members and technical reviewers

On the basis of a competence analysis and individual availabilities a verification team, consisting of one team leader and one additional team member, was appointed.

The list of involved personnel, the tasks assigned and the qualification status are summarized in the Table 3-2 below.

Table 3-2: Involved Personnel

| | Name | Company | Function ¹⁾ | Qualification Status ²⁾ | Scheme competence ³⁾ | Technical competence ⁴⁾ | Verification competence ⁵⁾ | Host country Competence | On-site visit |
|---|----------------------------|------------------------------------|-------------------------|------------------------------------|-------------------------------------|------------------------------------|---------------------------------------|-------------------------------------|-------------------------------------|
| <input type="checkbox"/> Mr. <input checked="" type="checkbox"/> Ms. | Alexandra Nebel | TÜV NORD Cert GmbH Germany | TL | SA | <input checked="" type="checkbox"/> | 14.1 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <input type="checkbox"/> Mr. <input checked="" type="checkbox"/> Ms. | Davinah Uwella- Milenge | TÜV NORD Cert GmbH S. Africa | TM ^{A)} | ETE | <input type="checkbox"/> | - | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| <input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms. | Ashwin A.S. | TÜV NORD India | TR ^{B)} | A | <input checked="" type="checkbox"/> | 14.1 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | - |
| <input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms. | Rainer Winter | TÜV NORD Cert GmbH Germany | FA/ TR ^{B)} | SA | <input checked="" type="checkbox"/> | - | <input checked="" type="checkbox"/> | <input type="checkbox"/> | - |

¹⁾ TL: Team Leader; TM: Team Member, TR: Technical review; OT: Observer-Team, OR: Observer-TR; FA: Final approval

²⁾ GHG Auditor Status: A: Assessor; LA: Lead Assessor; SA: Senior Assessor; T: Trainee; TE: Technical Expert

³⁾ GHG auditor status (at least Assessor)

⁴⁾ As per S01-MU03 or S01-VA070-A2 (such as 1.1, 1.2 ...)

⁵⁾ In case of verification projects

^{A)} Team Member: GHG auditor (at least Assessor status), Technical Expert (incl. Host Country Expert or Verification Expert), not ETE

^{B)} No team member

All team members contributed to the review of documents, the assessment of the project activity and to the preparation of this report under the leadership of the team leader.

Technical experts contributed to the assessment of special aspects of the project activity, e.g. technical or host country aspects.

In order to qualify further personnel the project team was accompanied by observers and/or trainees as indicated in the table above. They are usually not considered as team members.

Statements of competence for the above mentioned team members are enclosed in annex 6 of this report.

3.4. Publication of the Monitoring Report

In accordance with the CDM M&P (§ 62) the draft monitoring report, as received from the project participants, has been made publicly available on the dedicated UNFCCC CDM website prior to the verification activity commenced. Comments received are taken into account in the course of the verification, if applicable.

3.5. Verification Planning

In order to ensure a complete, transparent and timely execution of the verification task the team leader has planned the complete sequence of events necessary to arrive at a substantiated final verification opinion.

Various tools have been established in order to ensure an effective verification planning.

Risk analysis and detailed audit testing planning

For the identification of potential reporting risks and the necessary detailed audit testing procedures for residual risk areas table A-1 is used. The structure and content of this table is given in Table 3-3 below.

Table 3-3: Table A-1; Identification of verification risk areas

| Table A-1: GHG calculation procedures and management control testing / Detailed audit testing of residual risk areas and random testing | | | | |
|--|---|---|---|--|
| Identification of potential reporting risk | Identification, assessment and testing of management controls | Areas of residual risks | Additional verification testing performed | Conclusions and Areas Requiring Improvement (including Forward Action Requests) |
| <i>The following potential risks were identified and divided and structured according to the possible areas of occurrence.</i> | <i>The potential risks of raw data generation have been identified in the course of the monitoring system implementation. The following measures were taken in order to</i> | <i>Despite the measures implemented in order to reduce the occurrence probability the following residual risks remain and</i> | <i>The additional verification testing performed is described. Testing may include:</i> - Sample cross checking of manual transfers of data - Recalculation | <i>Having investigated the residual risks, the conclusions should be noted here. Errors and uncertainties are highlighted.</i> |

Table A-1: GHG calculation procedures and management control testing / Detailed audit testing of residual risk areas and random testing

| Identification of potential reporting risk | Identification, assessment and testing of management controls | Areas of residual risks | Additional verification testing performed | Conclusions and Areas Requiring Improvement (including Forward Action Requests) |
|--|---|---|---|---|
| | <p><i>minimize the corresponding risks.</i></p> <p><i>The following measures are implemented:</i></p> | <p><i>have to be addressed in the course of every verification.</i></p> | <ul style="list-style-type: none"> - Spreadsheet 'walk through' to check links and equations - Inspection of calibration and maintenance records for key equipment - Check sampling analysis results - Discussions with process engineers who have detailed knowledge of process uncertainty/error bands. | |

The completed table A-1 is enclosed in the Annex 1 (table A-1) to this report.

Project specific periodic verification checklist

In order to ensure transparency and consideration of all relevant assessment criteria, a project specific verification protocol has been developed. The protocol shows, in a transparent manner, criteria and requirements, means and results of the verification. The verification protocol serves the following purposes:

- It organises, details and clarifies the requirements a CDM project is expected to meet for verification
- It ensures a transparent verification process where the verifying DOE documents how a particular requirement has been proved and the result of the verification.

The basic structure of this project specific verification protocol for the periodic verification is described in Table 3-4.

Table 3-4: Structure of the project specific periodic verification checklist

Table A-2: Periodic verification checklist

| Checklist Item | Reference | Verification Team Comments | Draft Conclusion | Final Conclusion |
|--|---|---|--|---|
| <i>The checklist items in Table A-2 are linked to the various requirements the monitoring of the project should meet. The checklist is organised in various sections as per the requirements of the topic and the individual project activity. It further includes guidance for the verification team.</i> | <i>Gives reference to the information source on which the assessment is based on.</i> | <i>The section is used to elaborate and discuss the checklist item in detail. It includes the assessment of the verification team and how the assessment was carried out. The reporting requirements of the VVM shall be covered in this section.</i> | <i>Assessment based on evidence provided if the criterion is fulfilled (OK), or a CAR, CL or FAR (see below) is raised. The assessment refers to the draft verification stage.</i> | <i>In case of a corrective action or a clarification the final assessment at the final verification stage is given.</i> |

The periodic verification checklist (verification protocol) is the backbone of the complete verification starting from the desk review until final assessment. Detailed assessments and findings are discussed within this checklist and not necessarily repeated in the main text of this report.

The completed verification protocol is enclosed in the annex (table A-2) to this report.

3.6. Desk review

During the desk review all documents initially provided by the client and publicly available documents relevant for the verification were reviewed. The main documents are listed below:

- the last revision of the PDD including the monitoring plan^{/PDD/},
- the last revision of the validation report^{/VAL/},
- documentation of previous verifications^{/VER/}
- the monitoring report, including the claimed emission removals for the project^{/MR/},
- the emission removal calculation spreadsheet^{/XLS/}.

Other supporting documents, such as publicly available information on the UNFCCC website and background information were also reviewed.

3.7. On-site assessment

As most essential part of the verification exercise it is indispensable to carry out an inspection on site in order to verify that the project is implemented in accordance with the applicable criteria. Furthermore the on-site assessment is necessary to check the monitoring data with respect to accuracy to ensure the calculation of emission removals. The main tasks covered during the site visit include, but are not limited to:

- The on-site assessment included an investigation of whether the project has implemented the forestry management plan as anticipated.
- The operating staff was interviewed and observed in order to check the risks of inappropriate forest management and data collection procedures (forest inventory).
- Information processes for generating, aggregating and reporting the selected monitored parameters were reviewed.
- The duly calibration of all metering equipment was checked (if required).
- The monitoring processes, routines and documentations were audited to check their proper application.
- The monitoring data were checked completely.
- The data aggregation trails were checked via spot sample down to the level of the data measurement.

The complete verification team attended the site visit.

Before and during the on-site visit the verification team performed interviews with the project participants to confirm selected information and to resolve issues identified in the document review.

Representatives of World Vision Ethiopia and BioCarbon Fund including the operational staff of the project were interviewed. The main topics of the interviews are summarised in Table 3-5.

Table 3-5: Interviewed persons and interview topics

| Interviewed Persons / Entities | Interview topics |
|--|--|
| 1. Projects & Operations Personnel, World Vision Ethiopia 2. Bio Carbon Fund (World Bank) 3. Cooperative members | <ul style="list-style-type: none"> - General aspects of the project - Forest management plan and implementation - Changes since validation - Monitoring and measurement - Remaining issues from validation - Calibration procedures (if applicable) - Quality management system - Involved personnel and responsibilities - Training and practice of the operational personnel - Implementation of the monitoring plan - Monitoring data management - Data uncertainty and residual risks - GHG removal calculation - Procedural aspects of the verification - Controlling of forest sites - Environmental aspects |

To check the forest inventory data, the verification team took a sample 10 sampling points to re-measure the tree data. This represents 11% of the total 85 sample plots

of the project activity. Doing this the verification team observed the PPs field team when performing re-measurements of the plots. This includes: determination of plot location using GPS, taking GPS point, identifying sample plot size in the field, counting of trees to be measures, measurement of dbh at 1.30m above ground (respecting exceptions as per best forest practice), determination of tree species.

As there is no guidance yet in place for verification sampling for AR projects, the verification team concluded a 10 % sample as appropriate for this project activity to get to a final opinion on the correctness and accuracy of measurements.

3.8. Draft verification reporting

On the basis of the desk review, the on-site visit, follow-up interviews and further background investigation the verification protocol is completed. This protocol together with a general project and procedural description of the verification and a detailed list of the verification findings form the draft verification report. This report is sent to the client for resolution of raised CARs, CLs and FARs.

3.9. Resolution of CARs, CLs and FARs

Nonconformities raised during the verification can either be seen as a non-fulfilment of criteria ensuring the proper implementation of a project or where a risk to deliver high quality emission removals is identified.

Corrective Action Requests (CARs) are issued, if:

- Non-conformities with the monitoring plan or methodology are found in monitoring and reporting, or if the evidence provided to prove conformity is insufficient;
- Mistakes have been made in applying assumptions, data or calculations of emission removals which will impair the estimate of emission removals;
- Issues identified in a FAR during validation or previous verifications requiring actions by the project participants to be verified during verification have not been resolved.

The verification team uses the term Clarification Request (CL), which is be issued if:

- information is insufficient or not clear enough to determine whether the applicable CDM requirements have been met.

Forward Action Requests (FAR) indicate essential risks for further periodic verifications. Forward Action Requests are issued, if:

- the monitoring and reporting require attention and / or adjustment for the next verification period.

For a detailed list of all CARs, CLs and FARs raised in the course of the verification pl. refer to chapter 4.

3.10. Final reporting

Upon successful closure of all raised CARs and CLs the final verification report including a positive verification opinion can be issued. In case not all essential issues could finally be resolved, a final report including a negative verification opinion is issued.

The final report summarizes the final assessments w.r.t. all applicable criteria.

3.11. Technical review

Before submission of the final verification report a technical review of the whole verification procedure is carried out. The technical reviewer is a competent GHG auditor being appointed for the scope this project falls under. The technical reviewer is not considered to be part of the verification team and thus not involved in the decision making process up to the technical review.

As a result of the technical review process the verification opinion and the topic specific assessments as prepared by the verification team leader may be confirmed or revised. Furthermore reporting improvements might be achieved.

3.12. Final approval

After successful technical review an overall (esp. procedural) assessment of the complete verification will be carried out by a senior assessor located in the accredited premises of TÜV NORD.

After this step the request for issuance can be started.

4. VERIFICATION FINDINGS

In the following paragraphs the findings from the desk review of the monitoring report^{/MR/}, the calculation spreadsheet^{/XLS/}, PDD^{/PDD/}, the Validation Report^{/VAL/} and other supporting documents, as well as from the on-site assessment and the interviews are summarised.

The summary of CAR, CL and FAR issued are shown in Table 4-1:

Table 4-1: Summary of CAR, CL and FAR

| Verification topic | No. of CAR | No. of CL | No. of FAR |
|---|------------|-----------|------------|
| A – General description of the project activity | 4 | 0 | 0 |
| B – Implementation of the project activity | 3 | 0 | 0 |
| C – Description of the monitoring system | 2 | 0 | 0 |
| D – Data and parameters monitored | 4 | 3 | 1 |
| E - Emission Removals Calculation | 6 | 0 | 0 |
| SUM | 19 | 3 | 1 |

The following tables include all raised CARs, CLs and FARs and the assessments of the same by the verification team. For an in depth evaluation of all verification items it should be referred to the verification protocols (see Annex).

The findings of the verification process are summarized in the tables below.

DOE Assessment #1 on MR version 2 (2012-03-23)

DOE Assessment #2 on MR version 3 (2012-05-09)

DOE Assessment #3 on MR version 4 (2012-05-17)

DOE Assessment #4 on MR version 5 (2012-06-27) (after TR)

| Finding: | A1 | | |
|---|--|-----------------------------|------------------------------|
| Classification | <input checked="" type="checkbox"/> CAR | <input type="checkbox"/> CL | <input type="checkbox"/> FAR |
| Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i> | A.1 point 4.Total emission reduction: The explanation given in this section belongs to section D.2 (DBH) and section E.6. Further it has not been justified in the MR why EB 63 Annex 27 is applicable for this change. | | |

| Finding: | A1 |
|---|---|
| | <p>E.6: Justification is not sufficient. No information that the minimum dbh has been set down, which increases the emission removals. Further stratum 5 has been considered a stratum with 0 emission removals reducing the total emissions.</p> |
| <p>Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i></p> | <p>Modifications have been made to E6, D2 and A1.4 clarifying the scope of EB 63 Annex 27 decisions pertaining to this project.</p> |
| <p>DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-2. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i></p> | <p>A.1: Irrelevant explanations in point 4 of section A.1. Have been removed and shifted to E.6. Nevertheless the total ERs given for the MP are not in line with the rest of the document (71,582.95 tCO₂ vs. 73,138.49 tCO₂). Correction is requested.</p> <p>A table has been included in section B.4 justifying the exact paragraph of EB 63 Annex 27 applicable to the minor change without necessary board approval. Further assessment on the same follows in section 5 of this report.</p> <p>E.6: More detailed and reasonable explanation has been included in the MR about comparison of ex-ante and actual values. The assessment on the same follows in section 5 of this report.</p> |
| <p>Corrective Action #2 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i></p> | <p>73138 is now consistently used through MR.</p> |
| <p>DOE Assessment #2 <i>The assessment shall encompass all open issues in annex A-2. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i></p> | <p>A.1: The total ERs are now consistent all over the document with 73,138 tCO₂e. The total ER are correct and conservatively rounded down. Later updated again to 73,339 tCO₂e. <u>CAR is closed.</u></p> |
| <p>Conclusion <i>Tick the appropriate checkbox</i></p> | <p> <input type="checkbox"/> To be checked during the next periodic verification <input checked="" type="checkbox"/> Appropriate action was taken <input checked="" type="checkbox"/> Project documentation was corrected correspondingly <input type="checkbox"/> Additional action should be taken <input checked="" type="checkbox"/> The project complies with the requirements </p> |

| Finding: | A2 |
|---|---|
| Classification | <input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL <input type="checkbox"/> FAR |
| <p>Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i></p> | <p>A.4: In this section under “Supplemental planting” no information is given on survival rate checking and re-planting activities.</p> |

| Finding: | A2 |
|---|---|
| | Further no map has been included in this section showing the different strata and means of implementation (natural reg. and planting). |
| Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i> | Section A.4 has been updated with more information on supplemental planting and survival rate checking. A map is forthcoming from World Vision Ethiopia. |
| DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-2. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i> | A description of survival rate checking and re-planting activities has been included in section A.4. The same information is correct as per the observations at site visit and document review /IMPL/. No map has been included so far. Correction is requested. |
| Corrective Action #2 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i> | Map has been included in section A1 and referenced in section A4. |
| DOE Assessment #2 <i>The assessment shall encompass all open issues in annex A-2. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i> | A map showing re-stratification of the project area has been included in section A.1 of the MR. The stratification can be confirmed as precise and correct as per the information and observations received during the site visit /VISIT/ /GIS/. CAR is closed. |
| Conclusion <i>Tick the appropriate checkbox</i> | <input type="checkbox"/> To be checked during the next periodic verification <input checked="" type="checkbox"/> Appropriate action was taken <input checked="" type="checkbox"/> Project documentation was corrected correspondingly <input type="checkbox"/> Additional action should be taken <input checked="" type="checkbox"/> The project complies with the requirements |

| Finding: | A3 |
|---|---|
| Classification | <input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL <input type="checkbox"/> FAR |
| Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i> | A.5: In this section information is missing about all tools applicable and all EB decisions considered for this monitoring period. |
| Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i> | Updated with two additional tools referenced |
| DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-2. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i> | Two additional tools have been included in this section: Guideline EB 63 Annex 27 and the tool for demonstrating appropriateness of allometric equations. The reference to the Annex 27 is not complete as the EB meeting reference (63) is missing. Guideline EB 63 Annex 26 has not been listed. |
| Corrective Action #2 <i>This section shall be filled by</i> | References have been corrected and updated. |

| Finding: | A3 |
|---|---|
| <i>the PP. It shall address the corrective action taken in details.</i> | |
| DOE Assessment #2 <i>The assessment shall encompass all open issues in annex A-2. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i> | <p>The reference list has been updated and corrected and is now complete.</p> <p><u>CAR is closed.</u></p> |
| Conclusion <i>Tick the appropriate checkbox</i> | <input type="checkbox"/> To be checked during the next periodic verification <input checked="" type="checkbox"/> Appropriate action was taken <input checked="" type="checkbox"/> Project documentation was corrected correspondingly <input type="checkbox"/> Additional action should be taken <input checked="" type="checkbox"/> The project complies with the requirements |

| Finding: | B1 |
|---|--|
| Classification | <input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL <input type="checkbox"/> FAR |
| Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i> | <p>1) During site visit it was identified that one plantation site of stratum 5 has been added to the project boundary, as per the GIS map, that was not registered in the PDD. The project participant is requested to remove this area as boundary extension is not possible after registration. It shall further be clarified whether this exclusion will have a significant impact on the stratification and sampling design.</p> <p>2) Respective changes in stratum boundary need to be consistent all over the MR and calculation.</p> |
| Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i> | <p>The project team has mapped the entire project and removed the small site which was added to stratum 5. It was found that an area of 2 hectares had been added to stratum 3 and 2 hectares to stratum 5. These were removed, and the correct area of each stratum is given in the Data Management Template. GIS shape files have been included in the Data Management Template</p> |
| DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-2. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i> | <p>1) Corrected GIS shape files have been provided by the PP. The project area is now consistent with the area given in the registered PDD. The total area as per PDD was 2728.08 ha and now has been confirmed with 2728.02 ha. This makes a difference of 600m² which can be explained with the accuracy of the GPS of ±15m. As the project area is in total a little less, this can be seen as conservative and is hence accepted. This is also accepted as change under EB 63 Annex 27 (n).</p> <p>2) Respective changes in stratum boundary need to be consistent all over the MR and calculation.</p> <p>Correction is requested.</p> |

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| Corrective Action #2 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i> | All stratum 5 boundary has been made consistent to 50.7 |
| DOE Assessment #2 <i>The assessment shall encompass all open issues in annex A-2. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i> | 2) The area in cell G3 of “sample size determination.xls” still gives 50.6 ha for stratum 5. Correction is requested as per CAR E2. This CAR is therefore closed. <u>CAR is closed.</u> |
| Conclusion <i>Tick the appropriate checkbox</i> | <input type="checkbox"/> To be checked during the next periodic verification <input checked="" type="checkbox"/> Appropriate action was taken <input checked="" type="checkbox"/> Project documentation was corrected correspondingly <input type="checkbox"/> Additional action should be taken <input checked="" type="checkbox"/> The project complies with the requirements |

| Finding: | B2 | | |
|--|---|-----------------------------|------------------------------|
| Classification | <input checked="" type="checkbox"/> CAR | <input type="checkbox"/> CL | <input type="checkbox"/> FAR |
| Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i> | MR B.1: 1. The starting date...: The date given for starting plantation activities (05/06/2007) is contradicting to the date given in section A.1: 3. Relevant dates... (15/07/2007) and table B.1. Clarification and correction is requested. MR B.1: 2.1. Plantation activities. No information has been included in this section that the planting activities have been concluded in 2011 as evidenced during site visit. Further the exact area of plantation is not given in this section. MR B.1: 2.3. Community engagement No information has been given in this section that the management activities will be handed over from World Vision Ethiopia to the local government and communities by end of 2012 and how sustainability of the project will be secured. MR B.1: 2.3. Community engagement (below table): Paragraph about replanting belongs to section “1. Plantation activities” above. | | |
| Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i> | Starting date: The correct date was 05/06/2007 (world Environment day) Plantation Activities: It has been confirmed that planting activities were concluded by 31 August 2011. Community engagement: Information regarding forest management has been added to the data management template. However more information on other types of training activities is available on request. | | |

| Finding: | B2 |
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| | <p>Workshops are to be undertaken in April or May 2012 around the transfer of project to the local government and the community.</p> <p>World Vision is currently organizing Humbo and Sodo projects into Forestry Unions; this will be completed by May 2012. World Vision will deliver training on monitoring, reporting and managing the unions to the communities.</p> <p>World Vision will maintain a technical support and monitoring role, and will have an annual commitment to the project maintaining and ensuring the project is properly implemented and monitored.</p> <p>Paragraph identified has been moved to B1.1</p> |
| <p>DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-2. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i></p> | <p><u>MR B.1: 1. The starting date</u> It has been clarified that the project start date is the 01/12/2006 with first field activities implementation (site closure). This is in line with the PDD. Further the first plantings have started on 05/06/2007 as could be evidenced by records^{/IMPL/}.</p> <p>Nevertheless still in A.1 point 3 it says that active management started on 15/07/2007 (after planting start). Correction is requested.</p> <p><u>MR B.1: 2.1. Plantation activities.</u> The exact date has been included in this section of the MR. The 31/08/2011 is the last planting date of the project activity. This has been confirmed by records during site visit^{/IMPL/}. The area of stratum 5 has been reported in section A of the MR. This point of the CAR is closed.</p> <p><u>MR B.1: 2.3. Community engagement</u> No evidence has been provided that substantiate the activities listed above. (Planning of workshops, forest union establishment documents, contract about technical support by WV.) Please provide evidences.</p> <p>The referred paragraph has been correctly shifted from Community engagement to plantation activities. This point of the CAR is closed.</p> |
| <p>Corrective Action #2 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i></p> | <p>MR B.1.1 Has been corrected to 05/06/2007</p> <p>The following evidence has been provided to substantiate community engagement:</p> <ul style="list-style-type: none"> • Letter by district office supporting the cooperatives' next level of authority (i.e. union level) • Tentative schedule for stakeholders' consultation workshop on sustainability of Humbo & Soddoo AR project and handing over issue. This will be conducted once the approval from |

| Finding: | B2 |
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| | <p>the zonal cooperative happens</p> <ul style="list-style-type: none"> Letter written by the district level municipalities to newly establish temporary union election committee assuring that office for the union is issued (the union name is already identified and fixed by the seven cooperatives “Den Hiwot cooperative union” as indicated on top of the letter address) |
| DOE Assessment #2 <i>The assessment shall encompass all open issues in annex A-2. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i> | <p><u>Starting date:</u> The starting date is now overall consistent and correct in the MP. This point of the CAR is closed.</p> <p><u>Community engagement:</u> Above listed evidences have been provided showing first steps to organize the handover of the project to the local communities and to ensure sustainability. It shall further be mentioned that World Vision will still remain as project participant in the CDM project, only the management of the forest handed over under the control of the involved communities below guidance of the government. This point of the CAR is closed.</p> <p><u>CAR B2 is closed.</u></p> |
| Conclusion <i>Tick the appropriate checkbox</i> | <input type="checkbox"/> To be checked during the next periodic verification <input checked="" type="checkbox"/> Appropriate action was taken <input checked="" type="checkbox"/> Project documentation was corrected correspondingly <input type="checkbox"/> Additional action should be taken <input checked="" type="checkbox"/> The project complies with the requirements |

| Finding: | B3 |
|---|--|
| Classification | <input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL <input type="checkbox"/> FAR |
| Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i> | <p>MR B.4:</p> <p>The list of minor changes is not complete for the following:</p> <ul style="list-style-type: none"> Measurement of trees <=2cm instead of <=4cm (p). Re-stratification and no. of sample plots (m). Excluding burning of fossil fuel as leakage. <p>Further justification is missing why these changes fall under EB63 Annex 27/26.</p> |
| Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i> | <p>These parameters have been updated in section B4.</p> |
| DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-2. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i> | <p>The respective information has been correctly included in section B.4 of the MR version 2. An assessment on the minor changes can be found in section 5 of the FVR.</p> <p><u>The CAR is closed.</u></p> |
| Conclusion | <input type="checkbox"/> To be checked during the next periodic verification |

| Finding: | B3 |
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| Tick the appropriate checkbox | <input checked="" type="checkbox"/> Appropriate action was taken <input checked="" type="checkbox"/> Project documentation was corrected correspondingly <input type="checkbox"/> Additional action should be taken <input checked="" type="checkbox"/> The project complies with the requirements |

| Finding: | C1 |
|---|---|
| Classification | <input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL <input type="checkbox"/> FAR |
| Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i> | MR C: Monitoring of the project boundary: In the monitoring methodology it could not be found the given reference that a random sample of 10% of boundary points shall be monitored. Check reference. Further this section does not describe in detail the outcome of the boundary re-measurements nor has it been included in the parameter section D.2. or in the excel sheet. Here only coordinates are given without analysis of the data. |
| Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i> | An analysis is given in the MR and a discussion/analysis is included in the excel spreadsheet QA/QC sample plots and boundary |
| DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-2. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i> | MR C: Monitoring of the project boundary: In the monitoring methodology it could not be found the given reference that a random sample of 10% of boundary points shall be monitored. Check reference. Justification and analysis has been included in the MR section C. The verification team checked the excel sheet including the QAQC data and found them as explained the MR. Only small differences between original coordinates and re-measured coordinates have been detected which are most likely related to the GPS device accuracy (<15m) and satellite availability at that date. Further the verification team has checked project boundary points randomly during site visit and can confirm that it has not been changed. Project boundary has been made visible using life fences, the same have been observed during site visit. The project boundary is confirmed and correct. The excel sheet shall be merged with the other QAQC sheet. |
| Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i> | The methodology does not identify the number of boundary points which need to be monitored, however the PDD identifies that 1% of points will be monitored. The project team decided to undertake a larger sample to ensure the quality of this monitoring parameter, and has monitored 10% of the project boundary. Incorrect reference in the methodology has been removed. QA QC spreadsheets have been merged. |

| Finding: | C1 |
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| DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-2. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i> | <p>MR C:</p> <p>It has been clarified that the reference given in the MR was not correct. An explanation has been provided that the methodology does not request a 10% sample for QAQC measures. The PDD monitoring plan determined a 1% QAQC check as sufficient. Thus it is accepted as conservative approach that a 10% QAQC check has been performed to confirm the project boundary. The MR has been corrected accordingly.</p> <p>The two QAQC excel sheets have been merged to on single sheet.</p> <p><u>CAR is closed.</u></p> |
| Conclusion <i>Tick the appropriate checkbox</i> | <input type="checkbox"/> To be checked during the next periodic verification <input checked="" type="checkbox"/> Appropriate action was taken <input checked="" type="checkbox"/> Project documentation was corrected correspondingly <input type="checkbox"/> Additional action should be taken <input type="checkbox"/> The project complies with the requirements |

| Finding: | C2 |
|---|---|
| Classification | <input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL <input type="checkbox"/> FAR |
| Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i> | <p>MR C:</p> <p>Trainings: No section describing trainings given to communities and WV field staff and management has been included in this section.</p> <p>Sample Design: No information is given what the basis for re-stratification was.</p> <p>Further for the details of sampling design one is referred to the annex of the MR. No annex found in the MR. (Note that only the MR is the written document sent for RfIssuance beside the calculation in excel, thus all necessary information must be covered within the MR).</p> |
| Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i> | <p>List of training activities has been included in Data management templates. The project team has updated information on sampling design and re-stratification.</p> |
| DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-2. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i> | <p><u>Trainings:</u> A list covering most important trainings have been included in the MR. The verification team could check on-site the training records provided to communities and project staff. Also interviews with communities confirmed the existence of several training sections. Also the management success of the project does show that training measures have been successful and understood.</p> |

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| | <p>The field measurement staff received extra training on forest monitoring and inventory during a WB work-shop in Kenya. Respective training manual has been shown to the verification team. A practical training has further been conducted with the project manager. No documented records could evidence the same but the training has been confirmed independently by the field team. The effectiveness of the training can be confirmed as the measurement techniques observed during re-measurement were correct and the inventory rules were understood.</p> <p><u>Sample design:</u> A detailed sampling design description has been included in the MR. The description is correct and follows good forest sampling practice. The same procedures have been explained to the verification team during site visit. A reproduction of the sampling design has been presented to the verifier. The description is complete and correct. For a detailed assessment on sampling please see section 5 of the FVR.</p> <p>Following mistakes have been identified: 6 sample plots per stratum (5) equals 30 plots instead of 24. Please clarify.</p> |
| Corrective Action #2 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i> | <p>The number of sample plots was 30, and the MR has been updated to reflect this.</p> |
| DOE Assessment #2 <i>The assessment shall encompass all open issues in annex A-2. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i> | <p>The mistake has been corrected. The MR is consistent and says in all section that 30 sample plots have been measured for the purpose of determining the sample size. This has further been evidenced with the respective excel sheet where 30 sample plots are included in the calculation.</p> <p><u>CAR is closed.</u></p> |
| Conclusion <i>Tick the appropriate checkbox</i> | <p> <input type="checkbox"/> To be checked during the next periodic verification <input checked="" type="checkbox"/> Appropriate action was taken <input checked="" type="checkbox"/> Project documentation was corrected correspondingly <input type="checkbox"/> Additional action should be taken <input type="checkbox"/> The project complies with the requirements </p> |

| Finding: | D1 | | |
|----------------|---|-----------------------------|------------------------------|
| Classification | <input checked="" type="checkbox"/> CAR | <input type="checkbox"/> CL | <input type="checkbox"/> FAR |

| Finding: | D1 |
|---|---|
| Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i> | <p>MR D.1: Allometric equation: $F_i (DBH, H)$</p> <p>Only one allometric equation has been described in this section. For the calculation of biomass for eucalyptus and graveillea the equation for natural regeneration of dry forests is not appropriate.</p> <p>The allometric equations have not been analysed by using the tool: "Demonstrating appropriateness of allometric equations for estimation of aboveground tree biomass in A/R CDM project activities" EB65 Annex 28.</p> |
| Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i> | <p>Updated with 3 allometric equations, and utilised the tool to demonstrate appropriateness of allometric equations.</p> |
| DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-2. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i> | <p>The parameter has been revised. For each of the two plantation trees and the natural regeneration allometric equations have been included in the MR.</p> <p>For the two plantation trees Eucalyptus and Gravillea only the ex-ante equation has been listed as this equation is not yet used in the calculations. This is due to the fact that the planted trees are still too small for measurements. A FAR will be opened to assess the correctness of equations for Eucalyptus and Gravillea in the next verification.</p> <p>The allometric equation for natural regeneration has been analysed as per the tool EB65 Annex 28. The allometric equations complies with requirement c) "The equation was derived from a data set of at least 30 sample trees, and the value of coefficient of determination (R2) obtained was not less than 0.85."</p> <p>No evidence (description of the development of equation by author) has been provided to substantiate the results of the analysis.</p> |
| Corrective Action #2 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i> | <p>The project team recommends opening a FAR for the eucalyptus and grevillea equations, to be clarified at the next verification when these trees are large enough to be measured.</p> <p>The application of a Tropical Dry allometric equation was discussed with Dr. Sandra Brown from Winrock International and other specialists. The equation chosen was considered appropriate to the requirements of the tool as it fits the requirements of section 6c, it was developed from a hybrid of datasets across three countries, and is considered an international equation for Tropical Dry forests. The original data used to generate this equation is included in the data management template. The equation has an R2 value of 0.97, and is derived from destructive sampling of 504 trees.</p> |

| Finding: | D1 |
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| DOE Assessment #2 <i>The assessment shall encompass all open issues in annex A-2. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i> | <p>Evidence of the development of the allometric equation for biomass estimation of tropical dry forests has been provided. The original data sheet has been reviewed by the verification team. As requested in the tool, requirement c) is met, including more than 30 trees (504 trees) in the sample resulting in a coefficient R^2 of > 0.85 (with 0.97).</p> <p>Nevertheless the final equation given in the new excel evidence is given with $y=0.203(dbh^{2.3217})$ instead of $y=0.2035(dbh^{2.3106})$. Clarification is requested.</p> |
| Corrective Action #3 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i> | <p>The allometric equation provided by Sandra Brown's data and that published in the sourcebook are slightly different iterations of the same equation, with a difference of approximately 0.3%. Given the sourcebook equation was published, and was the more conservative iteration of the equation, this was the one used to calculate the emission reductions for the project.</p> |
| DOE Assessment #3 <i>The assessment shall encompass all open issues in annex A-2. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i> | <p>The allometric equation used in the calculations is published /SB/ and it gives more conservative estimates, than the equation that was initially developed by Sandra Brown. She provided the basic data to the PP to be able to show compliance with the tool. The source of the initial form of this equation shows all basic tree data that have been entered to develop the equation (as assessed above). Based on these results the published version has been developed as confirmed during interviews with the PP.</p> <p>It can be concluded that the equation has been developed in accordance with the tool and that the most conservative one has been applied to the emission reductions.</p> <p>CAR is closed.</p> |
| Conclusion <i>Tick the appropriate checkbox</i> | <p> <input type="checkbox"/> To be checked during the next periodic verification <input checked="" type="checkbox"/> Appropriate action was taken <input type="checkbox"/> Project documentation was corrected correspondingly <input type="checkbox"/> Additional action should be taken <input checked="" type="checkbox"/> The project complies with the requirements </p> |

| Finding: | D2 |
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| Classification | <input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL <input type="checkbox"/> FAR |
| Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i> | <p>MR D.2:</p> <p>As per the latest Guideline EB 63 Annex 26 only data and parameters obtained from the field measurements are required to be monitored. Monitoring is not required for data, parameters, or variables appearing as intermediate values in calculation steps and those taken from existing sources.</p> |
| Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i> | <p>The following parameters have been removed from Section D2 in the Monitoring Report:</p> <p>A_{ikt}; Area of Plant Area; BEF; CAB_{ijt}; C_{ACTUAL}; $C_{BB,ijt}$; GHGe; H_{ijt}; MV ijt; N_i; N_i; PL_{ID}; T_{ID}; $MCAB_{ijt}$; $MCBB_{ijt}$; ΔCAB_{ijt}; ΔCAB_{ikt}; ΔCBB_{ijt}; ΔCBB_{ikt}; ΔCLB_{ikt} (sum) ΔCP_{ikt}; ΔCP_{LB}; $\Delta MCAB$,</p> |

| Finding: | D2 |
|--|--|
| | <p><i>ikt; $\Delta MCAB$, ikT; $\Delta MCBB$, ijt;</i></p> <p>The following parameters have been moved from D2 to D1 in the Monitoring Report: <i>Ri; XF; Za/2</i></p> |
| <p>DOE Assessment #1</p> <p><i>The assessment shall encompass all open issues in annex A-2. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i></p> | <p>Section D.1 and D.2 have been revised. Following parameters need correction:</p> <p>Parameter: “Volume of Fuel wood utilised from thinning and pruning” unit as per parameter box is still m³, value applied is in tons. Please clarify.</p> <p>The parameter: “Area of planted strata” has been deleted from D.2. This is not appropriate as this parameter is monitored and measured after planting was completed. Include value. Correction is requested.</p> <p>Parameter “Age of plantation” has been deleted from D.2. This is not appropriate as this parameter is monitored. Correction is requested.</p> |
| <p>Corrective Action #2</p> <p><i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i></p> | <p>Parameter: “Volume of Fuel wood utilised from thinning and pruning” unit has been changed to tonnes</p> <p>Deleted parameters (Area of planted strata and Age of plantation) has been reinserted</p> |
| <p>DOE Assessment #2</p> <p><i>The assessment shall encompass all open issues in annex A-2. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i></p> | <p>Parameter: “Volume of Fuel wood utilised from thinning and pruning” unit has been changed to tonnes. This is deemed appropriate according to EB 66 Annex 24 (p) that parameters can be changed if they do not result in a decrease in precision of the estimate of tree biomass. The monitoring has been done directly in tons thus applying tons without conversion to m³ is more precise. No under or overestimation of biomass is possible. Further this parameter is not used for the ER calculation but only comparative for leakage determination. The approach is conservative and accepted.</p> <p>The parameter: “Area of planted strata” has been included in D.2. The parameter description is correct.</p> <p>The parameter: “Age of plantation” has been included in D.2. The parameter description is correct.</p> <p><u>CAR is closed.</u></p> |
| <p>Conclusion</p> <p><i>Tick the appropriate checkbox</i></p> | <p><input type="checkbox"/> To be checked during the next periodic verification</p> <p><input checked="" type="checkbox"/> Appropriate action was taken</p> <p><input checked="" type="checkbox"/> Project documentation was corrected correspondingly</p> |

| Finding: | D2 |
|----------|---|
| | <input type="checkbox"/> Additional action should be taken <input type="checkbox"/> The project complies with the requirements |

| Finding: | D3 |
|---|---|
| Classification | <input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL <input type="checkbox"/> FAR |
| Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i> | <p>MR D.2: All parameters where GPS is used: No information is given in the parameter table about the specifications of the GPS (accuracy and whether calibration is necessary).</p> <p>Parameter AP (Sample plot area): The values included (1m, 4m, 14m, 20m) appear in m and not in m² as required by the methodology.</p> <p>Parameter: Area of planted strata: Clarification is requested with respect to recording frequency: "At end of year 1". Is end of year 1, one year after project start (2007) or one year after planting the area? Further a value in (ha) is missing in the parameter table.</p> <p>Parameter Ri (root shoot ratio) and Dj (wood density): Only the value for natural regeneration has been included in this table. The respective value for eucalyptus and gravillea is missing (and probably other planted tree species). Further these are default values and belong to section D.1.</p> |
| Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i> | <p>The project team has</p> <ul style="list-style-type: none"> Updated GPS specifications Updated sample plot areas Updated area of each strata Updated RS ratio for Eucalyptus and Grevillea |
| DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-2. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i> | <p>1) Parameter lat/long and project boundary have contradicting statements regarding calibration of the GPS. Please clarify.</p> <p>2) Parameter AP has been correct. Values are now given in m² and are correct.</p> <p>3) This parameter has been deleted. See CAR D2 and correct.</p> <p>4) The table for Rj has been shifted to section D.1. This is correct as the values were fixed in the PDD. Values for the planted species have been also included. Parameter Dj has been removed as this parameter is covered with the application of the allometric equation.</p> |
| Corrective Action #2 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i> | <ol style="list-style-type: none"> 1. Calibration is not possible on the Garmin GPS 60, and the contradicting statements have been removed. 2. Parameter will be reinserted |
| DOE Assessment #2 | 1) A GPS device does not require calibration as per manufacturer |

| Finding: | D3 |
|---|---|
| <p>The assessment shall encompass all open issues in annex A-2. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</p> | <p>information. The accuracy is dependent on the availability of satellites and whether conditions. The misstating statement has been removed. It has been clarified that no calibration is necessary. During site visit the accuracy of the measurements was always below the maximum of $\pm 15\text{m}$.</p> <p>3) The parameter: "Area of planted strata" has been included in D.2. The parameter description is correct.</p> <p>CAR is closed.</p> |
| <p>Conclusion Tick the appropriate checkbox</p> | <p><input type="checkbox"/> To be checked during the next periodic verification</p> <p><input checked="" type="checkbox"/> Appropriate action was taken</p> <p><input checked="" type="checkbox"/> Project documentation was corrected correspondingly</p> <p><input type="checkbox"/> Additional action should be taken</p> <p><input type="checkbox"/> The project complies with the requirements</p> |

| Finding: | D4 | | |
|--|--|--|------------------------------|
| Classification | <input type="checkbox"/> CAR | <input checked="" type="checkbox"/> CL | <input type="checkbox"/> FAR |
| <p>Description of finding Describe the finding in unambiguous style; address the context (e.g. section)</p> | <p>MR D.2: Calibration Clarification is necessary whether real calibration is necessary for GPS, meter tape and calliper.</p> <p>Respective information/clarification has not been included in the parameter tables.</p> | | |
| <p>Corrective Action #1 This section shall be filled by the PP. It shall address the corrective action taken in details.</p> | Calibration information has been added where required in section D2. | | |
| <p>DOE Assessment #1 The assessment shall encompass all open issues in annex A-2. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</p> | <p>See also CAR D3 where contradicting information regarding the calibration of GPS is given.</p> <p>Please provide calibration records of <u>annual</u> tape calibration covering the whole monitoring period (2006-2011) as mentioned in parameter "AP".</p> | | |
| <p>Corrective Action #2 This section shall be filled by the PP. It shall address the corrective action taken in details.</p> | <p>Calibration of Garmin GPS 60 is not possible, ambiguity removed.</p> <p>Accuracy of the diameter tape and the caliper were checked against newly purchased steel tape before taking field measurements and the field staff has ascertained that there was no variation. The monitoring report has been updated to reflect this.</p> | | |
| <p>DOE Assessment #2 The assessment shall encompass all open issues in annex A-</p> | A GPS device does not require calibration as per manufacturer information. The accuracy is dependent on the availability of satellites and whether conditions. The misstating statement has | | |

| Finding: | D4 |
|---|--|
| 2. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added. | <p>been removed. It has been clarified that no calibration is necessary. During site visit the accuracy of the measurements was always below the maximum of $\pm 15\text{m}$.</p> <p>Parameter “AP” still contains following statement that is contradicting with statement above: “Fiberglass tape (Craftech 30m/100ft) and Bouncing RABIT 50/165ft Zhongya measuring tape) Calibrated annually. Last calibration November 2011.” Correction is requested.</p> |
| Corrective Action #3 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i> | Parameter AP has been modified regarding calibration of fiberglass tapes. |
| DOE Assessment #3 <i>The assessment shall encompass all open issues in annex A-2. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i> | <p>The MR has been corrected. All equipment used for meter measurements have been checked before the field measurement took place. They have been crosschecked against another meter scale. The “calibration” is sufficient for forest measurement devices as per best forest practice, because the main error of measurements is the human influence by performing the measurements and not the calipers or meters. To keep this error to a minimum people have been trained in doing precise measurements as per best forest inventory standards. The training as well as the performance could be evidenced during site visit.</p> <p><u>CL is closed.</u></p> |
| Conclusion <i>Tick the appropriate checkbox</i> | <p><input type="checkbox"/> To be checked during the next periodic verification</p> <p><input checked="" type="checkbox"/> Appropriate action was taken</p> <p><input checked="" type="checkbox"/> Project documentation was corrected correspondingly</p> <p><input type="checkbox"/> Additional action should be taken</p> <p><input type="checkbox"/> The project complies with the requirements</p> |

| Finding: | D5 |
|--|---|
| Classification | <input type="checkbox"/> CAR <input checked="" type="checkbox"/> CL <input type="checkbox"/> FAR |
| Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i> | <p>MR D.2:</p> <p>Parameter: $P_{Li, k}$</p> <p>It shall be clarified why the calculation of sample size has been done as per the “Sourcebook for Land Use, Land Use Change, and Forestry Projects (Timothy Pearson, Sarah Walker, and Sandra Brown, Winrock 2005)” instead of using either the applicable methodology approach or the Tool “Calculation of the number of sample plots for measurements within A/R CDM Project Activities” and why this is deemed to be appropriate.</p> |
| Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i> | The sourcebook was used as the procedural guide as it was consistent with the methodology, and at the time when the project team was developing the sampling design, the tool for sample design ;Calculation of the number of sample plots for |

| Finding: | D5 |
|---|--|
| | measurements with A/R CDM Project Activities' has not been developed. Given the sourcebook could be easily adopted by the field staff, it was considered the most appropriate template for the stratification and sampling design. |
| DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-2. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i> | <p>The sourcebook applied for the determination of sample size is in line with the methodology and has also been used and accepted for the validation of the project in the PDD. At that time the latest tool for determining sample size was not yet available.</p> <p>It can be further confirmed that the result in sample size would not differ when applying the sourcebook or the tool. Even though they use slightly different approaches the result is the same.</p> <p>This has been shown by the WB where a comparison calculation has been conducted. The same has been verified by the verification team and found correct.</p> <p>The sample size calculated is 77 plots, a 10% addition has been applied (85 plots) to reach precise estimates within the defined level of precision.</p> <p>Concluding the sample size has been determined as per the methodology, is in line with the PDD and is conservative assumed.</p> <p>CL is closed.</p> |
| Conclusion <i>Tick the appropriate checkbox</i> | <input type="checkbox"/> To be checked during the next periodic verification <input checked="" type="checkbox"/> Appropriate action was taken <input checked="" type="checkbox"/> Project documentation was corrected correspondingly <input type="checkbox"/> Additional action should be taken <input checked="" type="checkbox"/> The project complies with the requirements |

| Finding: | D6 |
|---|--|
| Classification | <input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL <input type="checkbox"/> FAR |
| Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i> | MR D.1: Parameter NaBL: The value given does not correspond with the value given in the PDD which is 3,990 instead of 3,512. Please clarify. |
| Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i> | Clarified this error – correct number is 3990 rather than 3512 |
| DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-2. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i> | <p>The value has been corrected and is now in line with the value given in the PDD with 3,990.</p> <p>CAR is closed.</p> |

| Finding: | D6 |
|---|--|
| Conclusion <i>Tick the appropriate checkbox</i> | <input type="checkbox"/> To be checked during the next periodic verification <input checked="" type="checkbox"/> Appropriate action was taken <input checked="" type="checkbox"/> Project documentation was corrected correspondingly <input type="checkbox"/> Additional action should be taken <input type="checkbox"/> The project complies with the requirements |

| Finding: | D7 |
|---|---|
| Classification | <input type="checkbox"/> CAR <input checked="" type="checkbox"/> CL <input type="checkbox"/> FAR |
| Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i> | MR D.2/E.3: Parameter: H_{ijt} and leakage: It shall be clarified how comparability is given for the results of fuel wood leakage calculation as the registered PDD gives a value of 4.3 in <u>tonnes/ha</u> of annual fuel wood collection at pre-project situation, while the MR counts with 5.1-6.1 <u>m³/ha</u> ex-post. |
| Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i> | Field data demonstrates that all values should have been reported in t/ha, rather than m ³ , and corrections have been made. |
| DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-2. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i> | The units have been corrected in the MR as the unit was erroneously given in m ³ . Nevertheless a copy of the field data showing unit of t/ha instead of m³/ha has not been send as evidence. See also open CAR D2. |
| Corrective Action #2 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i> | Field data sheets for fuel wood surveys have been provided. Please note that this data is in kg/100m ² (sample plot). A summary excel sheet has been provided that converts this to t/ha. |
| DOE Assessment #2 <i>The assessment shall encompass all open issues in annex A-2. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i> | Sufficient evidences have been provided showing that the parameter has been given in kg and then converted into tons for comparability of the leakage results. The units given in the MR have been corrected and are consistent now. CAR is closed. |
| Conclusion <i>Tick the appropriate checkbox</i> | <input type="checkbox"/> To be checked during the next periodic verification <input checked="" type="checkbox"/> Appropriate action was taken <input checked="" type="checkbox"/> Project documentation was corrected correspondingly <input type="checkbox"/> Additional action should be taken <input checked="" type="checkbox"/> The project complies with the requirements |

| Finding: | E1 |
|-------------------------------|--|
| Classification | <input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL <input type="checkbox"/> FAR |
| Description of finding | During comparison between field records and excel sheet of the |

| Finding: | E1 |
|---|---|
| Describe the finding in unambiguous style; address the context (e.g. section) | sample plot data during the site visit one transcription error has been identified. A plot (Stratum 2 Plot 8), where originally two trees are found, has been transferred to the excel calculation sheet with no tree counted. Correction or clarification is requested. |
| Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i> | Field staff checked original documents both from Kebede and Hailu. There was an error on the datasheet, with the two DBHs actually belong to St1 plot 8 not St2 plot number 8. Hailu has already amended it as part of quality assurance and what is submitted in the spreadsheet is correct. There are two trees with 23 and 32.8cm dbh respectively are already recorded in st1 plot 8. This is an example of QA correcting errors identified during data transfer. |
| DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-2. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i> | The transcription error has already detected during QAQC re-measurements and has been corrected when entering the data into the database. The verification team can confirm the correctness of the applied values for point ST1P8 with two trees and ST2P8 with zero trees. The CAR is closed. |
| Conclusion <i>Tick the appropriate checkbox</i> | <input type="checkbox"/> To be checked during the next periodic verification <input checked="" type="checkbox"/> Appropriate action was taken <input checked="" type="checkbox"/> Project documentation was corrected correspondingly <input type="checkbox"/> Additional action should be taken <input type="checkbox"/> The project complies with the requirements |

| Finding: | E2 |
|---|--|
| Classification | <input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL <input type="checkbox"/> FAR |
| Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i> | Excel sheet "Sample size determination": The calculation is not transparent in all cells (no formula included). Other cells do not have a description of the value or unit. |
| Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i> | This spreadsheet has been updated, including the addition of relevant formulae. |
| DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-2. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i> | <p>A transparent calculation has been provided. Except from the comments below the sample size calculation can be found correct and in line with the methodology.</p> <p>Please correct unit word "tone" to either "ton" or "tonne" as per international SI unit description.</p> <p>The area of stratum 5 is given in cell G3 with <u>50.6 ha</u>. This contradicts with values given in sheet "project area data" with <u>50.8 ha</u> and MR data with <u>50.7 ha</u>. Please identify the correct value and include correctly all over the documentation.</p> |

| Finding: | E2 |
|---|--|
| Corrective Action #2 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i> | <p>Tone has been changed to tonne</p> <p>The area for stratum 5 is 50.7 and has been corrected in all relevant spreadsheets.</p> |
| DOE Assessment #2 <i>The assessment shall encompass all open issues in annex A-2. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i> | <p>The word has been corrected.</p> <p>The area in cell G3 of “sample size determination.xls” still gives 50.6 ha for stratum 5. Correction is requested.</p> |
| Corrective Action #3 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i> | <p>Cell G3 of “Sample Size determination.xls” has been modified.</p> |
| DOE Assessment #3 <i>The assessment shall encompass all open issues in annex A-2. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i> | <p>The excel sheet “Sample Size determination.xls” has been corrected. The area of stratum 5 is now consistent all over the documentation. The change in size of the stratum 5 did not influence the sample size. This has been checked by reviewing the respective excel sheet.</p> <p><u>CAR is closed.</u></p> |
| Conclusion <i>Tick the appropriate checkbox</i> | <p><input type="checkbox"/> To be checked during the next periodic verification</p> <p><input checked="" type="checkbox"/> Appropriate action was taken</p> <p><input checked="" type="checkbox"/> Project documentation was corrected correspondingly</p> <p><input type="checkbox"/> Additional action should be taken</p> <p><input checked="" type="checkbox"/> The project complies with the requirements</p> |

| Finding: | E3 |
|--|---|
| Classification | <input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL <input type="checkbox"/> FAR |
| Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i> | <p>The overall emission removal calculation has been found conservative and correct in terms of parameters applied. Nevertheless it has not been calculated in the order given by the tool: “Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities” EB 60 Annex 13 or as per the applied methodology. Correction is requested.</p> <p>For stratum 5 the applied allometric equation is not for <i>eucalyptus</i> and <i>gravillea</i> but the one for natural regeneration. Correction is required.</p> |
| Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i> | <p>Allometric equations for Eucalyptus and Grevillea have been included.</p> <p>Section E3 has been reworked to follow the procedure outlines in the methodology and the spreadsheet has been updated to follow the same.</p> |

| Finding: | E3 |
|---|---|
| <p>DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-2. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i></p> | <p>A revised excel sheet has been provided, the following corrections need to be done:</p> <p>The allometric equation used in cell G334 to G339 is still for natural regeneration and not for the respective planted tree (Eucalyptus or Graviilea) of stratum 5. Correction is requested.</p> <p>All references in the excel sheet are not as per applied Methodology AR-AM0003 version 4. Version 3 has been used instead. Correction in the excel sheet is necessary.</p> <p>Assessment of the excel sheet can only follow after complete and correct references to methodology equations made.</p> |
| <p>Corrective Action #2 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i></p> | <p>Allometric equations have been updated for stratum 5 Spreadsheet has been updated to reflect version 4 of the methodology</p> |
| <p>DOE Assessment #2 <i>The assessment shall encompass all open issues in annex A-2. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i></p> | <p>Cell G334 to G339 have been changed. Instead of an allometric equation the counter 0 has been included. Eucalyptus and Graviilea will only enter into the biomass calculation within the 2nd MP. Thus it is not necessary to fix an equation this time. This is conservative and thus accepted.</p> <p>All references in the excel sheet have been correctly revised as per Methodology version 4.</p> <p>The ER calc. excel sheet has been completely revised. The calculation follows now the approach given in the methodology. Nevertheless some mistakes have been detected and need correction:</p> <ol style="list-style-type: none"> 1) The conversion from kg to tons is done in a separate step and not as given in equation 71 and 76. Please justify or correct. 2) For the plot expansion factor (equation 72) not always the formula $XF=10000/AP$ has been applied. In many cases fixed numbers are included in the cells of row P and W. Please correct. 3) Cell 1AF and 1AH the formulas 60 and 61 have been cited in mixed order. Please correct. 4) The dbh data between sheets “Data from permanent plot” and “ER by sink” are not matching for stratum 1+2+3. Please clarify the differences and/or correct. <p>Stratum 1: sum of all dbh = 730.15; plot sheet sum of all dbh = 730.10 Stratum 2: sum of all dbh = 215.61; plot sheet sum of all dbh = 216.51 Stratum 3: sum of all dbh = 942.57; plot sheet sum of all dbh = 947.17</p> |

| Finding: | E3 |
|---|--|
| <p>Corrective Action #3 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i></p> | <ol style="list-style-type: none"> 1) The conversion from kg to tones was done as a separate step in a previous iteration of the spreadsheet, and this order of operations has continued through to the current version of the spreadsheet. This has been modified and an updated version of the spreadsheet is being provided. 2) Plot expansion factors have been converted to formula, which have increased the total ER for the project by 0.07t. 3) Cells 1AF and 1AH have been corrected. 4) The differences between the sum of dbh on the plot sheet, and the dbh on the ER by sinks sheet are due to two factors. Firstly the fact that the plot sheet data included updated data from the QA QC exercise, and the ER by sinks data did not. This can be confirmed by the QA QC sample plot spreadsheet. Data has been updated with those plots subjected to the QA QC process. Secondly there were two errors in data transcription between the plot data and the ER calculation data which have been corrected. <p>The combination of these two factors has increased the total ER for the project by 201 tCO₂e to 73,339.65 t CO₂e.</p> |
| <p>DOE Assessment #3 <i>The assessment shall encompass all open issues in annex A-2. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i></p> | <ol style="list-style-type: none"> 1) The conversion from kg to tons has been done as given in the formula of the methodology. The same has been corrected in the excel sheet. 2) A formula has been included in the excel sheet in all respective cells to reflect the plot expansion factor. The formula is correctly applied. The slight increase of final ER is accepted and correct and a results of precise decimal calculation. 3) The equations 60 and 61 have now been placed in the right order and are correctly applied in cell no. 1AC and 1AE of the spread sheet. 4) The data have been corrected in the ER by sinks sheet as per the results of measurement after QAQC control. Now both data sheets have the same data. These data have been crosschecked with the original field data sheets and QAQC re-measurements. <p>The total increase of ER is justified by the corrections above and is correct and conservative.</p> <p><u>The CAR is closed.</u></p> |
| <p>Conclusion <i>Tick the appropriate checkbox</i></p> | <p> <input type="checkbox"/> To be checked during the next periodic verification <input checked="" type="checkbox"/> Appropriate action was taken <input checked="" type="checkbox"/> Project documentation was corrected correspondingly <input type="checkbox"/> Additional action should be taken <input checked="" type="checkbox"/> The project complies with the requirements </p> |

| Finding: | E4 | | |
|---|---|-----------------------------|------------------------------|
| Classification | <input checked="" type="checkbox"/> CAR | <input type="checkbox"/> CL | <input type="checkbox"/> FAR |
| Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i> | <p>Section E “Emission reduction calculation”</p> <p><i>Note: There is no existing monitoring report template for AR projects, thus this section must be adopted by the PP in a way it fits the requirements for AR projects.</i></p> <p>Following calculations and respective formulas applied are missing for: E.1 baseline removals, E.2 project removals, project emissions, E.4 emission reduction calculation.</p> | | |
| Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i> | These have been added to sections E1-E4. | | |
| DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-2. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i> | <p>Formulas have been added to the section, nevertheless following needs correction:</p> <p>E.1-E.4: All formula references have been made to Methodology AR-AM003 version 3 instead of version 4. Correction is requested.</p> <p>E.2 Project emissions: The disturbance of pits affect <u>4.32 ha</u> as per excel sheet. The MR states <u>4.35 ha</u>. Correction is requested.</p> <p>E.3 Leakage: Check table format table E.1.</p> <p>In Text below table E.1 still M³YR⁻¹ is given instead of tons.</p> <p>E.4 Emission reductions: Will be checked after correction.</p> | | |
| Corrective Action #2 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i> | <p>Formula References have been updated to align with version 4 of the methodology.</p> <p>Disturbance has been corrected to 4.35 hectares (transcription error from 2011 planting – correct area is 4.35 ha, and this is updated in the spreadsheet.</p> <p>Table has been reformatted.</p> <p>E.3 leakage has been changed to tonnes instead of m3</p> | | |

| Finding: | E4 |
|---|--|
| DOE Assessment #2 <i>The assessment shall encompass all open issues in annex A-2. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i> | <p>E.1-E.4: All references have been correctly revised as per methodology version 4. The sections are now complete.</p> <p>E.2 Project emissions: File “project area data.xls” sheet “site preparation” The disturbance of pits still given with <u>4.32 ha</u>. Correction requested.</p> <p>E.3: Leakage: Table has correct format. And the unit has been correctly changed from m³ to tons.</p> <p>E.4: This section is now complete. All references have been correctly cited as per the methodology. The same references have been used in the MR and in the excel calculation sheet.</p> |
| Corrective Action #3 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i> | <p>E.2 The disturbance area in the spreadsheet has been modified to 4.35 as per the MR</p> |
| DOE Assessment #3 <i>The assessment shall encompass all open issues in annex A-2. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i> | <p>E.2: The data with regard to the soil disturbance have been made consistence overall project documentation. The applied value of 4.35 ha is correct. The calculations have been checked.</p> <p><u>CAR is closed.</u></p> |
| Conclusion <i>Tick the appropriate checkbox</i> | <p><input type="checkbox"/> To be checked during the next periodic verification</p> <p><input checked="" type="checkbox"/> Appropriate action was taken</p> <p><input checked="" type="checkbox"/> Project documentation was corrected correspondingly</p> <p><input type="checkbox"/> Additional action should be taken</p> <p><input checked="" type="checkbox"/> The project complies with the requirements</p> |

| Finding: | E5 |
|--|---|
| Classification | <input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL <input type="checkbox"/> FAR |
| Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i> | <p>Section E.3 Leakage</p> <p>Calculation of emission from fossil fuel burning is not updated as per the EB 63 guidance's. Annex 26 both within and outside the project boundary.</p> |
| Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i> | <p>Leakage from Fossil Fuels has been removed with reference to EB 63 Annex 26.</p> |
| DOE Assessment #1 <i>The assessment shall encom-</i> | <p>In line with EB 63 Annex 26 leakage emissions from burning fossil fuels need not to be monitored and have thus correctly excluded</p> |

| Finding: | E5 |
|--|---|
| pass all open issues in annex A-2. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added. | from the MR. it is to not that transportation of trees or planting was reduced to a minimum and only applied where necessary. Normally donkeys have been used for transportation. CAR is closed. |
| Conclusion Tick the appropriate checkbox | <input type="checkbox"/> To be checked during the next periodic verification <input checked="" type="checkbox"/> Appropriate action was taken <input checked="" type="checkbox"/> Project documentation was corrected correspondingly <input type="checkbox"/> Additional action should be taken <input checked="" type="checkbox"/> The project complies with the requirements |

| Finding: | D1 |
|--|---|
| Classification | <input type="checkbox"/> CAR <input type="checkbox"/> CL <input checked="" type="checkbox"/> FAR |
| Description of finding Describe the finding in unambiguous style; address the context (e.g. section) | During the next verification the allometric equations for the two plantation trees Eucalyptus and Graviillea need to be assessed for their appropriateness. In the 1 st MR only the ex-ante equation has been listed as this equation is not yet used in the calculations. This is due to the fact that the planted trees are still too small for measurements (<2cm dbh). |
| Conclusion Tick the appropriate checkbox | <input checked="" type="checkbox"/> To be checked during the next periodic verification <input type="checkbox"/> Appropriate action was taken <input type="checkbox"/> Project documentation was corrected correspondingly <input type="checkbox"/> Additional action should be taken <input type="checkbox"/> The project complies with the requirements |

| Finding: | A4 |
|--|--|
| Classification | <input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL <input type="checkbox"/> FAR |
| Description of finding Describe the finding in unambiguous style; address the context (e.g. section) | <p>Corrections in MR after TR:</p> <p>1.Section A.1 of the MR mentions "...validated by the DOE JACO in March 2009.". Please confirm this is factually correct that RfR was submitted in March 2009.</p> <p>2.The total of plantation in strata 5 is given as 50.7 ha in table A-2 of the MR. However on adding the figures, 50.8 ha is the total. This might be because of decimal rounding off in the original spread sheet from where the table is sourced. But the igures have to be checked and confirmed.</p> <p>3.The latest version of "Guidelines on accounting of specified types of changes in A/R CDM project activities from the description in</p> |

| Finding: | A4 |
|--|--|
| | <p><i>registered project design documents.</i>” Is not used, as mentioned in section A.5 of the MR. Refer EB 66 Annex 24.</p> <p>4.The data required for forest management in table C-2 does not include the following:</p> <ol style="list-style-type: none"> Mnagement-thinning/harvesting/coppicing volume. Disturbances- date, location, area, species, type and biomass loss. <p>5.Figure 2 (mentioned in sampling design) is missing in section C.</p> <p>6.The immediate portion after ‘section D’ and before ‘section D.1’ of the MR is repetition of the MR template and is redundant and unnecessary information.</p> <p>7.Root to shoot ratio has a recording frequency of 5 years as per section E.4.1 of the PDD. Hence the same cannot be considered as fixed at the time of registration, since the same can change during the crediting period. Hence it is not appropriate to place root to shoot ratio in section D.1 of the MR. This also applies to BEF, wood density, other leakage and PE related parameters etc. Even in cases where monitoring is not required as per EB 63, the same has to be clearly mentioned against the parameter in section D.2.</p> <p>8.Area of nitrogen application and slash and burn are given as ‘not monitored’. Is it really not monitored, or is the monitored value 0. Clarification required.</p> <p>9.In some instances the notations used in the equations in section E is not sub-scripted. Eg: TBABj instead of TB_{ABj}.</p> <p>10.Clarity required on changes in the number of sample plots in each year used to check survival rate.</p> <p>11.The method of calculating tCER is absent in the MR and the spread sheet. Please refer equation 102 of the methodology.</p> <p>12.The notation in table E-4 (<i>Total emission reduction</i>) is wrong considering equation 101 and 102. Please note that baseline emissions = 0 is not correct as baseline removals are also given in table E-3. Both table E-3 and table E-4 are to aligned as per the meth.</p> <p>13.E.5 remove decimals of final ER results</p> |
| <p>Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i></p> | <p>1.PP: changed to June based on registration request form</p> <p>2.PP: Planting area in 2011 changed from 6.1 to 6 ha (see Data management template – workbook ‘project area data’ – worksheet ‘discrete areas data’ – cell L14)</p> |

| Finding: | A4 |
|---|--|
| | <p>3.PP: corrected in section A.5 and other relevant parts of the MR</p> <p>4.PP: added to table C-2</p> <p>5.PP: this reference was left from a previous version of the report. Figure is no longer included and reference to the figure in the text has been removed</p> <p>6.PP: deleted</p> <p>7. PP: moved root-shoot ratio to section D.2 including the additional comment that this will only be updated if additional studies have been undertaken Regarding other parameters such as BEF, since these are not longer relevant for the project (with the switch to allometric equation), it would be assumed that EB63, Annex 26 does apply and these parameters do not need to be included</p> <p>8.PP: changed to 'not applicable' for nitrogen application and biomass before burning to make it more clear. Area of slash and burn in section D2 unchanged since this indicates zero as requested</p> <p>9.PP: notations section E checked and corrected</p> <p>10.PP: text has been rephrased to clarify the number of plot used during survival rate check in different years</p> <p>11.PP: tCER calculation and equation 102 added in MR. We consider that there is no need to include this in the spreadsheet since the text states that the spreadsheet calculates the net actual GHG removal by sinks. The conversion from net actual GHG removal by sinks to tCERs can easily be done in the MR itself since it doesn't require any calculations</p> <p>12.PP: table E-3 has been aligned with the methodology. Table E-4 has been removed. Text and equation added in section E4 on the decrease in the carbon stock in the living biomass carbon pools of non-tree vegetation in the year of site preparation</p> <p>13.PP: corrected</p> |
| <p>DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-2. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i></p> | <p>1.RfRegistration information has been correctly updated and has been checked with UNFCCC website information.</p> <p>2.Planting area in 2011 has been corrected as per the data given in the excel data management table. The data are now consistent all over the documentation.</p> |

| Finding: | A4 |
|---|---|
| | <p>3.The latest applicable guideline has been cited.</p> <p>4.Parameter of forest management have been added to table C-2. They are consistent with the data management records.</p> <p>5.The reference has been correctly removed as it is no longer cited.</p> <p>6.Text from the MR template has been correctly removed.</p> <p>7.The parameter root-shoot ratio has been moved to section D.2 as it was listed in the MP with a monitoring frequency of 5 years if better values are available. For this period no other values were available thus the registered ones are correctly applied. Parameters that are not longer relevant to the project have not been included in D.2 in-line with EB63, Annex 26.</p> <p>8.The value description has been changed to a more precise description with 'not applicable' for nitrogen application and biomass before burning. This is correct as either of the two has been performed in the project.</p> <p>9.The notations in section E have been corrected</p> <p>10.The number of plots to identify the survival rate has been made more clear and exact values have been included in the MR. These values are correct as could be evidenced by the annual management reports.</p> <p>11.tCER calculation and equation 102 have been correctly included in MR.</p> <p>12.Table E-3 complies now with the methodology. Table E-4 has been correctly removed.</p> <p>13.final tCERs/CERs are now displayed in full numbers without decimals.</p> <p>All corrections have been correctly done. The project documentation is now complete and consistent.</p> <p><u>CAR is closed.</u></p> |
| <p>Conclusion <i>Tick the appropriate checkbox</i></p> | <p><input type="checkbox"/> To be checked during the next periodic verification</p> <p><input checked="" type="checkbox"/> Appropriate action was taken</p> <p><input checked="" type="checkbox"/> Project documentation was corrected correspondingly</p> <p><input type="checkbox"/> Additional action should be taken</p> <p><input checked="" type="checkbox"/> The project complies with the requirements</p> |

| Finding: | E6 | | |
|--|--|-----------------------------|------------------------------|
| Classification | <input checked="" type="checkbox"/> CAR | <input type="checkbox"/> CL | <input type="checkbox"/> FAR |
| Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i> | <p>Corrections of excel sheets after TR:</p> <ol style="list-style-type: none"> Spread sheet name: Project Area data: <ol style="list-style-type: none"> In the worksheet 'boundaries' the easting data of stratum 1 is missing. Sample size determination: <ol style="list-style-type: none"> Worksheet preliminary carbon stock has some data given outside the table with no header explanation of what they are. Please refer coloumn Q and R. Sample plot date: <ol style="list-style-type: none"> In many instances in the spread sheet (eg: worksheet 'ER by sink'), the unit is either not mentioned or wrongly mentioned. Eg: cell c1, l1 etc. Similarly, the equation numbers provided are also wrong. Eg: cell AE 1 and AC1 have wrong equation numbers with reference to the applied meth. Coloumn M and T does not have a heading, even though it is clear what the figures represent. Actual net GHG removal by sinks is not represented in the sheet. Please refer equation no, 59 of the meth. Calculation of 'Net anthropogenic GHG removals by sinks' is not in line with the meth. ($C_{AR-CDM} = C_{ACTUAL} - C_{BSL} - LK$) AG1 gives 'Net GHG emission reduction by sink'. The term used is not in line with the methodology. Refer equation 101 of the methodology. | | |
| Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i> | <ol style="list-style-type: none"> Included. PP Column R has been removed, and column Q has been named <ol style="list-style-type: none"> PP Units have been added to columns, equations 60 and 61 have been correctly numbered Headings have been correctly added PP Ref to Equation 59 has been added PP Equation 101 has been added PP Terms have been adjusted to be consistent with the methodology | | |

| Finding: | E6 |
|---|--|
| DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-2. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i> | <p>1. Missing project boundaries have been completed. They comply with other project documentation.</p> <p>2. All data and cells are now correctly labelled. Unnecessary data have been removed.</p> <p>3.</p> <p>a. The units have been corrected and equations correctly numbered.</p> <p>b. Headings have been correctly added</p> <p>c. Reference to Equation 59 has been correctly added</p> <p>d. Equation 101 has been correctly added</p> <p>e. Terms have been correctly adjusted and are now in line with the methodology.</p> <p>All corrections have been correctly done. The project documentation is now complete and consistent.</p> <p>CAR is closed.</p> |
| Conclusion <i>Tick the appropriate checkbox</i> | <p><input type="checkbox"/> To be checked during the next periodic verification</p> <p><input checked="" type="checkbox"/> Appropriate action was taken</p> <p><input checked="" type="checkbox"/> Project documentation was corrected correspondingly</p> <p><input type="checkbox"/> Additional action should be taken</p> <p><input checked="" type="checkbox"/> The project complies with the requirements</p> |

| Finding: | Minor Issues |
|---|---|
| Classification | <input type="checkbox"/> CAR <input type="checkbox"/> CL <input type="checkbox"/> FAR |
| Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i> | <p>Monitoring Report</p> <p>Minor issues:</p> <p>A.1:</p> <p>c) Stratum 3: The word "Number" stands alone without context.</p> <p>e) Stratum 5: The word "Plantation" is spelled incorrectly.</p> <p>A.1: 3. Relevant dates: first date has incorrect format (01/12/2006).</p> <p>MR B.1: 2.3. Community engagement (below table): the word "monitoring" is missing between "survival rate...has".</p> <p>D.2: Parameter Volume of fuel wood utilised: A typo error in the word thinning.</p> |
| Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i> | <p>Minor issues have been corrected</p> |
| DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-2. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.)</i> | <p>A.1.c) has been corrected.</p> <p>A.1. e) has been corrected.</p> <p>A.1. 3: format of date has been corrected.</p> <p>B.1: word has been included.</p> <p>D.2: Typo has been corrected</p> |



| Finding: | Minor Issues |
|---|---|
| <i>shall be added.</i> | |
| Conclusion <i>Tick the appropriate checkbox</i> | <u>Minor Corrections Closed.</u> <input type="checkbox"/> To be checked during the next periodic verification <input checked="" type="checkbox"/> Appropriate action was taken <input checked="" type="checkbox"/> Project documentation was corrected correspondingly <input type="checkbox"/> Additional action should be taken <input type="checkbox"/> The project complies with the requirements |

5. SUMMARY OF VERIFICATION ASSESSMENTS

The following paragraphs include the summary of the final verification assessments after all CARs and CRs are closed out. For details of the assessments pl. refer to the discussion of the verification findings in chapter 4 and the verification protocol (Annex 1).

5.1. Implementation of the project

During the verification a site visit was carried out. On the basis of this site visit and the reviewed project documentation it can be confirmed that w.r.t. the realized project design, the project equipments, as well as the monitoring and sampling design, the project has been implemented and managed as described in the registered PDD or minor changes have been introduced covered by EB63 Annex 26 and 27 (for VVS replaced by EB66 Annex 24).

Following minor changes have been done in the project implementation and monitoring system that do not need prior approval by the board:

| PDD | Minor change | Assessment of minor change |
|---|---|---|
| 500 ha of supplemental planting as stratum 5. | Only 50.7 ha have been planted. | This change is covered under EB63 Annex 27 (a) and (k) . The change in area planted does not influence the additionality of this project because a barrier analysis has been performed. The size of area to be planted does not influence any of the barriers. The barriers are independent from the planting size. The area not planted was covered by natural regeneration and did not lead to a reduction on overall project area, because the planted area (stratum 5) was fully placed inside stratum 3 (natural regeneration). |
| 36 different species have been proposed in PDD to be planted. | Only 2 different species have been planted (also with respect to the area change in stratum 5). | This change is covered under EB63 Annex 27 (b) . The change in species composition does not |

| | | |
|---|---|---|
| | | influence the additionality of this project because a barrier analysis has been performed. Type of species composition was not part of a barrier and does not influence the same. |
| The BEF method has been chosen to calculate the tree biomass. | An allometric equation has been selected to calculate the tree biomass. | This change is covered under EB63 Annex 27 (p) . No specific BEF equation was available for the climatic region and type of forest at the time of validation. During verification either no BEF equation could be identified. Instead an allometric equation was available reflecting best the regional climatic growth conditions of the tropical dry forest. The use of this equation will not result in a decrease in precision of the estimate of tree biomass, but it will increase the precision due to absence of an adequate BEF method. The allometric equation has been selected in line with the respective tool. |
| Minimum tree diameter to be included in ER estimations was chosen with ≥ 4 cm. | Minimum tree diameter to be included in ER estimations was chosen with ≥ 2 cm. | This change is covered under EB63 Annex 27 (p) . Due to the above change from BEF to allometric equation this parameter could be changed as the allometric equations allows for precise biomass estimation starting with trees ≥ 2 cm. The use of this parameter change will result in an increase in estimated biomass but will not decrease the precision of the estimate. The overall ER estimate will still be conservative with respect to the overall carbon stored in the project area because all trees < 2 cm will not be |

| | | |
|--|---|---|
| | | counted. |
| Initial stratification | Re-stratification was necessary due to different growth conditions and less planted area in stratum 5. | This change is covered under EB63 Annex 27 (k) . Different growth conditions lead to necessity of re-stratification as initially planned in the PDD. This effected stratum 2, 3 and 5. The re-stratification will lead to less variance within one stratum and will thus increase precision of the results of the sampling. |
| Number of sample plots 89. | Number of sample plots 85. | This change is covered under EB63 Annex 27 (m) . Due to re-stratification the sample plot allocation among each stratum and the amount of plots in each stratum needed to be changed. This change will result in increasing precision of the biomass estimate. A 10% plus of sample plots have been added to each stratum to increase precision. |
| Maximum allowable relative margin of error of the mean for estimation of aboveground biomass $\pm 5\%$ | Maximum allowable relative margin of error of the mean for estimation of aboveground biomass $\pm 10\%$ | This change is covered under EB63 Annex 26 Table 1: A maximum allowable relative margin of error of the mean for estimation of aboveground biomass, of $\pm 10\%$ at 90% confidence level shall be allowed. |
| Leakage emission from burning fossil fuel included. | Leakage emissions from burning fossil fuels excluded. | This change is covered under EB63 Annex 26 table 1: Estimation and accounting of emissions from burning fossil fuel, both within and outside the project boundary, shall not be required. Consequently, monitoring of data and parameters related to above mentioned emissions shall not be required. |
| Monitoring of data and | Monitoring of data and | This change is covered |

| | | |
|--|--|---|
| parameters (complete list including fixed, default, intermediate and calculation parameters) | parameters is reduced to the once measured in the field. | under EB63 Annex 26 table 1: Only data and parameter obtained from field measurement are required to be monitored. Monitoring is not required for data, parameters or variables appearing as intermediate values in calculation steps and those taken from existing sources. |
|--|--|---|

5.2. Project history

During the validation the validating DOE might have raised issues that could not be closed or resolved during the validation stage. For this purpose FARs might have been raised. No such issues were identified for this project.

In the week of 2011-04-03 an initial verification has been carried out by TÜV NORD.

This first periodic verification has been started without taking into account observations made during initial verification. A complete first periodic verification has been carried out. Nevertheless at the end of this periodic verification CARs, CLs and FARs of initial verification have been crosschecked with outcome of the first periodic verification. No one of those findings was observed as an issue during the current verification. Thus it can be concluded that findings raised during initial verification are closed.

5.3. Special events

No special events with effect on the monitoring of the project have been observed during the monitoring period.

5.4. Compliance with the monitoring plan

The monitoring system and all applied procedures are completely in compliance to the registered monitoring plan or are covered under minor changes as assessed in section 5.1. of this report.

5.5. Compliance with the monitoring methodology

The monitoring system is in compliance with the applied monitoring methodology (AR-AM0003 version 4) or as per the latest applicable methodology (AR-ACM0001 version 5.2). This methodology is also applicable as per EB63 Annex 26. For further changes in use of methodology please find assessment in section 5.1 of this report.

5.6. Monitoring parameters

During the verification all relevant monitoring parameters (as listed in chapter B.7.1 of the PDD and as per EB63 Annex 26 Table 1) have been verified with regard to the appropriateness of the applied measurement / determination method, the correctness of the values applied for ER calculation, the accuracy, and applied QA/QC measures. The results as well as the verification procedure are described parameter-wise in the project specific verification checklist (see also chapter 3.7).

After appropriate corrections were carried out by the project participant it can be confirmed that all monitoring parameters have been measured and determined without material misstatements and in line with all applicable standards and relevant requirements.

Further default values have been reported in section D.1. of the MR. The following list shows the default values used in this verification for ER calculation. The verification team confirms the correct application and use of the default values:

| Parameter | Description | Value applied |
|---|--|---|
| C_{BSL} | Baseline net GHG removals by sinks | 0 |
| CF_j | Carbon fraction of species j | 0.5 |
| Ratio of molecular weights of C and CO ₂ | Ratio of molecular weights of C and CO ₂ | 44/12 |
| R_j | Root shoot ratio | Nat. Reg ¹ : 0.27 Eucalypt: 0.29 Gravillea: 0.27 |
| D_j | Wood density | Not applied |
| F_i (DBH) | Allometric equation for aboveground biomass | Nat. Reg: $0.2035 \cdot (DBH^{2.3196})$ Eucalypt: see FAR D1 Gravillea: see FAR D1 |
| iID | Stratum ID | A1, A2, A3, A4, A5 |
| ID _{ikt} , k ID | Stand ID | Natural regeneration = Stand model 1 Plantation = stand model 2 |
| N | Maximum possible number of sample plots | 43,644 |
| N_i | Maximum possible number of sample plots in stratum i | N1 = 3737, N2 = 10079, N3 = 27090, N4 = 1819, N5 = 919 |
| N_{aBL} | Pre-project number of animals | 3,990 |
| P | Desired level of precision | 10% |

¹ Nat. Reg. = Natural Regeneration

| | | |
|--------------------|------------------------------|--------------------|
| E | Allowable error | 10% |
| Confidence level | Confidence level | 90% |
| AN ikt | Area with N applied stratum | No N application |
| GWP _{CH4} | Global Warming Potential CH4 | No biomass burning |
| B _{ijt} | Tonnes of dry matter | 0 (conservative) |

5.7. Monitoring report

A draft monitoring report was submitted to the verification team by the project participants. The team has made this report publicly available prior to the start of the verification activities. No comments were received.

During the verification, mistakes and needs for clarification were identified. The PP has carried out the requested corrections so that it can be confirmed that the Monitoring report is complete and transparent and in accordance with the registered PDD and other relevant requirements.

5.8. ER Calculation

During the verification mistakes in the ER calculation were identified. Corresponding CARs were raised. A revised ER calculation was prepared by the PP and presented to the verification team. All raised issues were addressed appropriately so that all corresponding CARs could be closed out. Thus it is confirmed that the ER calculation is overall correct. The excel sheets are transparent and unprotected.

Emission removals have been calculated using formula 60, 61, 68 – 81 and 101 and 102 of the methodology which have been correctly cited and applied. The calculation starts with data at tree level of each sample plot. Those data have been compared to the original filed data records and QA/QC re-measurements.

Project emissions can be neglected as burning of fossil fuels is no longer necessary for this project activity as per EB 63 Annex 27.

Project emission due to soil disturbance can be neglected with not more than 0.16% of the total project area.

Leakage emissions are correctly considered zero for replacement of grazing animals and fuel wood collection by applying equation 28 and approaches given by the methodology (see assessment in checklist of this report).

Detailed assessment of the single components can be found in the protocol in Annex A1.

5.9. Quality Management

Quality Management procedures for measurements, collection and compilation of data, data storage and archiving, calibration (if necessary), maintenance and training of personnel in the framework of this CDM project activity have been defined. The procedures defined can be assessed as appropriate for the purpose. The quality management is in line with the SOP and monitoring plan. No significant deviations thereof have been observed during the verification.

5.10. Comparison with ex-ante estimated emission removals

The MR includes a comparison of the calculated actual emission removals with the ex-ante calculated values in the registered PDD.

The calculated value was found to be 4.96% higher than the ex-ante determined value.

The main reason for this increase is due to the fact that the BEF has been replaced by an allometric equation that is more adapted to tropical dry forests and complied with the tool to determine appropriateness of allometric equations. This new equation allows to measure trees $\geq 2\text{cm}$ in dbh, instead of $\geq 4\text{cm}$ as determined in the PDD. Consequently, more trees are measured than ex-ante estimated. This change is accepted as per EB 63 Annex 27 and still underestimates the total ER as trees $< 2\text{cm}$ are not counted, which normally represent most of the forest in 5 year old stands and that soil carbon gains are not counted at all.

Another reason is that the planted area decreased from 500 ha to 50.7 ha. The planted trees are only 5 years old or younger. None of these trees are yet to be included in the calculation as they are $< 2\text{cm}$ in dbh. As this area was estimated to be larger in the PDD, the ER have been underestimated ex-ante.

Further it is to mention that forest ex-ante estimations are only model based estimations and that actual field conditions are hardly to predict in natural stands. Thus this slight difference of about 5% can be accepted as normal and explained by natural circumstances.

5.11. Overall Aspects of the Verification

All necessary and requested documentation was provided by the project participants so that a complete verification of all relevant issues could be carried out.

Access was granted to all project sites (forest, offices and communities) which are relevant for the project performance and the monitoring activities.

No issues have been identified indicating that the implementation of the project activity and the steps to claim emission removals are not compliant with the UNFCCC criteria and relevant guidance provided by the COP/CMP and the CDM EB (clarifications and/or guidance).

However minor editorial issues were raised (please refer section 4) and closed in the course of verification.

5.12. Hints for next periodic Verification

In the course of this verification one FAR (FAR D1) has been raised.

“During the next verification the allometric equations for the two plantation trees Eucalyptus and Gravillea need to be assessed for their appropriateness. In the 1st MP only the ex-ante equation has been given as this equation is not yet used in the calculations. This is due to the fact that the planted trees are still too small for measurements (<2cm dbh) and consideration in ER calculation.”

6. VERIFICATION OPINION

IBRD (World Bank) as a trustee of the BioCarbon Fund has commissioned the TÜV NORD JI/CDM Certification Program to carry out the 1st periodic verification of the project: "Humbo Ethiopia Assisted Natural Regeneration Project", with regard to the relevant requirements for AR CDM project activities. The project removes GHG emissions due to protection of forest area from grazing and fuel wood collection as well as tree planting. This verification covers the period from 2006-12-01 to 2011-12-01 (including both days).

In the course of the verification 19 Corrective Action Requests (CAR) and 3 Clarification Requests (CR) were raised and successfully closed. Furthermore 1 FARs was raised to improve the monitoring system in the future. The verification is based on the draft monitoring report, revised monitoring report, the monitoring plan as set out in the registered PDD, the validation report, emission removal calculation spreadsheet and supporting documents made available to the TÜV NORD JI/CDM CP by the project participant.

As a result of this verification, the verifier confirms that:

- all operations of the project are implemented and installed as planned and described in the validated project design document.
- the monitoring plan is in accordance with the applied approved CDM methodology ,i.e., AR-AM0003 ver.4
- the equipment essential for measuring parameters required for calculating emission removals are "calibrated" as per best forest practice,
- the monitoring system is in place and functional. The project has generated temporary GHG emission removals (tCERs).

As the result of the 1st periodic verification, the verifier confirms that the GHG emission removals are calculated without material misstatements in a conservative and appropriate manner. TÜV NORD JI/CDM CP herewith confirms that the project has achieved emission removals in the above mentioned reporting period as follows:

Emission removals: **73,339** t tCO_{2e}
CO_{2e}

Hannover, 2012-06-29



Alexandra Nebel

TÜV NORD JI/CDM Certification Program

Verification Team Leader

Essen, 2012-06-29



Rainer Winter

TÜV NORD JI/CDM Certification Program

Final Approval

7. REFERENCES

Table 7-1: Documents provided by the project participant(s)

| Reference | Document |
|---------------|--|
| /ANRE/ | Annual Activity Accomplishment Report “Humbo/Soddo Community Managed Forestry Project” for the years 2006, 2007, 2008, 2009, 20010 and 2011. |
| /EQUI/ | Measurement equipment: <ul style="list-style-type: none"> ▪ GPS (incl. compass) – no calibration possible ▪ Pole (1,30m for dbh) – no calibration necessary ▪ Calliper – checked before measurement against another meter ▪ Tape – checked before measurement against another meter ▪ Rope |
| /FMNR/ | Farmer Managed Natural Regeneration. Impression of a short field trip. June 9-11, 2004. Reij. C. Vrije University, Amsterdam; Reforestation the Sahel: Farmer Managed Natural Regeneration. Cunningham P.J. and Abas T. |
| /GIS/ | GIS data shape files: <ul style="list-style-type: none"> ▪ Stratification at validation (strata 1-4) ▪ Stratum 5 (plantations) ▪ GPS points taken at site visit to check the project boundary and sample plot location ▪ Re-Stratification at verification (strata 1-5) ▪ Re-measurement of project boundary ▪ Sample plots at verification |
| /IMPL/ | Documents/Records on project implementation (case: H.Bada and Bongota): <ul style="list-style-type: none"> ▪ List of people affected negatively by the project implementation and their compensation measures ▪ Co-operation responsible in the communities ▪ Cooperative structure ▪ Planting Records (no. of seedlings, no. of people doing planting, species) 2007-2011 ▪ Fencing Records (live fence) ▪ excel records on boundary, site preparation, stratification, forest establishment, survival rate, silvicultural activities, disturbances ▪ /ANRE/ |

| Reference | Document |
|-----------------|---|
| /LEAK/ | Letter from local government showing results of animal census in the project communities. Data collected in 4 communities to estimate fuel wood collection in m ³ /ha |
| /LU/ | Land Use Right Certificates |
| /MAP/ | Project Maps: Cooperatives map over project site |
| /NURS/ | Nursery records: <ul style="list-style-type: none"> ▪ Nursery records H. Bada and Bongota ▪ SMART excel records on seedlings planted ▪ /ANRE/ |
| /OP/ | Operation documents: <ul style="list-style-type: none"> ▪ List of team leaders in community for pruning activities ▪ excel records silvicultural activities ▪ /ANRE/ |
| /PLOT/ | Sample Plot records: <ul style="list-style-type: none"> ▪ Original field data records ▪ Excel table (transferred data) ▪ SMART excel table (transferred data) |
| /POL/ | Forest policy and legislation: <ul style="list-style-type: none"> ▪ Forest Development, Conservation and utilization Policy and Strategy, ministry of Agriculture and Rural Development ▪ Land, Land Policy and Smallholder Agriculture in Ethiopia: Options and Scenarios, Future Agricultures Consortium, 2006 ▪ Proclamation No. 456-2005 on rural land use, Federal Republic of Ethiopia, 2006 |
| /PRO/ | Project information <ul style="list-style-type: none"> ▪ Humbo, Ethiopia Assisted Natural AR Carbon Sequestration Project Practice, Information Brochure, World Vision, 2011. ▪ Humbo Community Managed Natural Regeneration (CMNR) Project, Mid-term evaluation report, World Vision, 2011. |
| /QAQC/ | Sampling records of projects manager performing re-measurements of >10% of sample plots (10 out of 85) and project boundary points. |
| /SAMPLE/ | <ul style="list-style-type: none"> ▪ Methodology for permanent sample plots ▪ PPP Sampling methodology for verification |
| /SOP/ | Operations Monitoring Plan for the Humbo Ethiopia Assisted Regeneration |

| Reference | Document |
|-------------------|--|
| | Project , Third version 2010 Standard Operation Procedure for CDM Monitoring and Verification, latest update December 2011 Re-stratification, Estimating required number of permanent sample plots and design of sample plot location, July 2011 |
| /SB/ | Sourcebook for LULUCF by Timothy Pearson, Sarah Walker and Sandra Brown, 2005, BioCarbon Fund and Winrock International. |
| /SPEC/ | List of Identified herbarium Plant Specimens from SNNPR, Wolaita; Humbo Woreda, Collected by Demess Lema & Kebede Regassa, The National Herbarium, Addis Ababa University – Faculty of Science, 2010 Analysis of unknown local trees in 2011 |
| /SR/ | Survival rate and replanting reports for each year 2007-2010 |
| /SUB-ERPA/ | Sub-Emission Reduction Purchase Agreement between World Vision Australia, World Vision Ethiopia, Humbo Office of Agriculture and Rural Development and 7 communities belonging to the project activity: <ul style="list-style-type: none"> ▪ Abela Gefeta Hoko (seen during site visit) ▪ Abela Longena Gamo Saluwa (seen during site visit) ▪ Abela Shoya Sere (seen during site visit) ▪ Bolla Wanche Gamo (seen during site visit) ▪ Bossa Wanche Kache (seen during site visit) ▪ Hobicha Bada weyito (seen during site visit) ▪ Bongota Oda (seen during site visit) |
| /TRAIN/ | <ul style="list-style-type: none"> ▪ Manual “Community and government staff training on carbon stock measurements”, World Bank workshop, Kenya 12-24/06/2010 ▪ Several community trainings from 2008-2011 (pay list) to all cooperatives, topics: Climate Change and GHGs, book keeping, soil + water, forest management, leakage, carbon monitoring, fire management, forest assessment, nursery management, beekeeping, sustainable forest management, monitoring. Trainer: District level forest staff, World Vision forest staff. ▪ Pictures of training with communities on forest measurement ▪ Training manual “Carbon stock monitoring” for WV staff |
| /XLS/ | Excel calculation sheets and project records: <ul style="list-style-type: none"> ▪ Project area data.xls ▪ Sample Plot Data – Biomass AR-AM0003 V4.xls ▪ Sample Size Determination.xls ▪ Tropical Dry Allometric Equation Dataset.xls ▪ Leakage data.xls ▪ QAQC sample plots and boundaries.xls |

| Reference | Document |
|----------------|--|
| /VISIT/ | Site visit re-measurements of 10 sample plots out of 85: 2012-01-31 Plot: S1P1, S1P2, S2P12, S2P13, S2P14 2012-02-01 Plot: S3P47, S3P49, S3 P53, S4P4, S5P2 (S=Stratum, P=Plot) Strata observation photos and GPS coordinates: Stratum 1, Stratum 2, Stratum 3, Stratum 4, Stratum 5 |

Table 7-2: Background investigation and assessment documents

| Reference | Document |
|---------------------|--|
| /AR-AM0003/ | Approved AR CDM Methodology AR-AM0003, version 4: Afforestation and reforestation of degraded land through tree planting, assisted natural regeneration and control of animal grazing |
| /AR-ACM0001/ | Consolidated afforestation and reforestation baseline and monitoring methodology AR-ACM0001, version 5.2.0 "Afforestation and reforestation of degraded land". Replacing AR-AM0003. |
| /CPM/ | TÜV NORD JI / CDM CP Manual (incl. CP procedures and forms) |
| /EB/ | EB63 Annex 26: Guidelines on application of specified versions of A/R CDM methodologies in verification of registered A/R CDM project activities EB63 Annex 27: Guidelines on accounting of specified types of changes in A/R CDM project activities from the description in registered project design documents. |
| /IPCC/ | 1. 1996 IPCC Guidelines for National Greenhouse Gas Inventories: work book 2. 2006 IPCC Guidelines for National Greenhouse Gas Inventories: work book |
| /IPPC-LU/ | Good Practice Guidance for Land Use, Land-Use Change and Forestry |
| /IVAL/ | Initial Verification Report for CDM project "Humbo Ethiopia Assisted Natural Regeneration Project" version 1, dated 2011-04-14 by TÜV NORD. |
| /KP/ | Kyoto Protocol (1997) |
| /MA/ | Decision 3/CMP. 1 (Marrakesh – Accords & Annex to decision (17/CP.7)) |
| /MR/ | Monitoring Report (published) 2012-01-12 version 1 Monitoring Report (after DVR) 2012-03-23 version 2 |

| Reference | Document |
|--------------|---|
| | Monitoring Report (after DVR) 2012-05-09 version 3 Monitoring Report (for FVR) 2012-05-17 version 4 Monitoring Report (after TR) 2012-06-27 version 5 |
| /PDD/ | Project Design Document for CDM project: “Humbo Ethiopia Assisted Natural Regeneration Project” version 3, dated 2009-06-19 |
| /VAL/ | Validation Report for CDM project “Humbo Ethiopia Assisted Natural Regeneration Project” version 1, dated 2009-12-07 by JACO CDM LTD. |
| /VVM/ | UNFCCC Validation and Verification Manual (Version as per EB 55) |

Table 7-3: Websites used

| Reference | Link | Organisation |
|-----------------|---|--|
| /dna-HP/ | http://www.epa.gov.et/default.aspx | DNA of Ethiopia Environmental Protection Authority (EPA) |
| /dna-SP/ | http://www.international.gc.ca/ | DNA of Canada Environment, Energy and Sustainable Development Bureau |
| /unfccc/ | http://cdm.unfccc.int | UNFCCC |
| /ipcc/ | www.ipcc-nggip.iges.or.jp | IPCC publications |

Table 7-4: List of interviewed persons

| Reference | Mol ¹ | | Name | Organisation / Function |
|---------------|------------------|--|----------------------|---|
| /IM01/ | V | <input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms | Marco van der Linden | World Bank, BioCarbon Fund / Methodology Expert |
| /IM01/ | V | <input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms | Daigo Koga | World Bank. BioCarbon Fund / Carbon Finance Specialist |
| /IM02/ | V | <input checked="" type="checkbox"/> Mr. | Andrew Binns | World Vision Australia |

| Reference | Mol ¹ | | Name | Organisation / Function |
|-----------|------------------|---|---|---|
| | | <input type="checkbox"/> Ms | | |
| /IM02/ | V | <input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms | Assefa Tofu | World Vision Ethiopia / Project Carbon Market Specialist |
| /IM02/ | V | <input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms | Hailu Tefera | World Vision Ethiopia / Project Manager |
| /IM02/ | V | <input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms | Berhanu Mekonen | World Vision Ethiopia / GIS Coordinator |
| /IM02/ | V | <input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms. | Kibret Mamo | World Vision Ethiopia / department coordinator (field staff) |
| /IM02/ | V | <input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms | Kebede Refassa | World Vision Ethiopia / Humbo AR project officer (field staff) |
| /IM02/ | V | <input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms | Demisse Lemma | World Vision Ethiopia / Humbo AR project facilitator (field staff) |
| /IM03/ | V | <input checked="" type="checkbox"/> Mr. <input checked="" type="checkbox"/> Ms | Beyene Agebo + Cooperative members and non-cooperative members | Chairman Community Abela Longena |
| /IM03/ | V | <input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms | Thomas Hira + Cooperative members and non-cooperative members | Chairman Community Bongota |
| /IM03/ | V | <input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms | Henko Madebo + Cooperative members and non-cooperative members | Chairman Community Bongota, H. Bada |

¹⁾ Means of Interview: (Telephone, E-Mail, Visit)

ANNEX

- A1:** Verification Protocol
- A2:** Appointment / Authorisation
statements

ANNEX 1: VERIFICATION PROTOCOL

Table A-1: GHG calculation procedures and management control testing / detailed audit testing of residual risk areas and random testing

| Identification of potential reporting risk | Identification, assessment and testing of management controls | Areas of residual risks | Additional verification testing | Conclusions and Areas Requiring Improvement (including <i>Forward Action Requests</i>) |
|---|---|--|--|---|
| Raw data generation | | | | |
| <ul style="list-style-type: none"> • Use of measuring equipment • Dysfunction of used equipment • Mal-operation by operational personnel • Exchange of equipment • Change of measurement equipment characteristic • Insufficient accuracy • Change of technology • Accuracy of values supplied by Third | <ul style="list-style-type: none"> • Use of modern and state of the art equipment • Internal data review • Regular visual inspections of used equipment • Only skilled and trained personnel operates the relevant equipment • raw data checks • Immediate exchange of dysfunctional equipment • Training • Internal audit procedures | <ul style="list-style-type: none"> • Inadequate operation of the monitoring equipment • Inadequate exchange of equipment • Change of personnel • Undetected measurement errors • Inappropriateness of Management system procedures w.r.t. monitoring plan requirements (e.g. substitute value strategies) • Non-application of management system procedures • Insufficient accuracy | <ul style="list-style-type: none"> • Site – visit • Check of equipment • Check of technical data sheets • Check of suppliers information / guarantees • Check of calibration records, if applicable • Check of maintenance records • Counter-check of raw data • Check of CDM management system • Check of CDM related procedures • Application of CDM | <ul style="list-style-type: none"> • See Table A-2 |

| Identification of potential reporting risk | Identification, assessment and testing of management controls | Areas of residual risks | Additional verification testing | Conclusions and Areas Requiring Improvement (including <i>Forward Action Requests</i>) |
|--|---|--|---|---|
| Parties | | | management system procedures • Check of trainings • Check of responsibilities • Check of QA/QC documentation | |
| Raw data collection and data aggregation | | | | |
| <ul style="list-style-type: none"> Wrong data transfer from raw data to daily and monthly aggregated reporting forms IT Systems Spread sheet programming Manual data transmission Data protection Responsibilities | <ul style="list-style-type: none"> Cross-check of data Plausibility checks of various parameters. Appropriate archiving system Clear allocation of responsibilities Application of CDM Management system procedures Usage of standard software solutions (Spreadsheets) Limited access to IT systems | <ul style="list-style-type: none"> Unintended usage of old data that has been revised Incomplete documentation Ex-post corrections of records Ambiguous sources of information Non-application of management system procedures Manual data transfer mistakes Unintended change of spread sheet programming or data base entries | <ul style="list-style-type: none"> Check of data aggregation steps Counter-calculation Data integrity checks by means of graphical data analysis and calculation of specific performance figures Check of management system certification Check of data archiving system Check of application of Management system procedures | <ul style="list-style-type: none"> See Table A-2 |

| Identification of potential reporting risk | Identification, assessment and testing of management controls | Areas of residual risks | Additional verification testing | Conclusions and Areas Requiring Improvement (including <i>Forward Action Requests</i>) |
|--|---|---|--|---|
| | <ul style="list-style-type: none"> Data protection procedures | <ul style="list-style-type: none"> Problems caused by updating/upgrading or change of applied software | | |
| Other calculation parameters | | | | |
| <ul style="list-style-type: none"> Allometric equations Fixed parameters | <ul style="list-style-type: none"> The values and data sources applied are defined in the PDD and monitoring plan | <ul style="list-style-type: none"> Unintended or intended Modification of calculation parameters Wrong application of values Misinterpretations of the applied methodology and/ or the PDD Missing update of applicable regulatory framework (e.g. IPCC values) | <ul style="list-style-type: none"> Update-check of regulatory framework Countercheck of the applied MP in the MR against the methodology and the PDD | <ul style="list-style-type: none"> See Table A-2 |
| Calculation Methods | | | | |
| <ul style="list-style-type: none"> Applied formulae Miscalculation Mistakes in spread-sheet calculation | <ul style="list-style-type: none"> Advanced calculation and reporting tools A CDM coordinator is in charge of the CDM related calculations Usage of tested / | <ul style="list-style-type: none"> The danger of miscalculation can only be minimized. | <ul style="list-style-type: none"> Countercheck on the basis of own calculation. Spread sheet walk-trough. Plausibility checks | <ul style="list-style-type: none"> See Table A-2 |



| Identification of potential reporting risk | Identification, assessment and testing of management controls | Areas of residual risks | Additional verification testing | Conclusions and Areas Requiring Improvement (including <i>Forward Action Requests</i>) |
|---|--|---|--|---|
| | counterchecked Excel spreadsheets <ul style="list-style-type: none"> Involvement of external consultants | | <ul style="list-style-type: none"> Check of plots | |
| Monitoring reporting | | | | |
| <ul style="list-style-type: none"> Data transfer to the author of the monitoring report Data transfer to the monitoring report Unintended use of outdated versions | <ul style="list-style-type: none"> An experienced CDM consultant is responsible for monitoring reporting. CDM QMS procedures are defined | <ul style="list-style-type: none"> The danger of data transfer mistakes can only be minimized Inappropriate application of QMS procedures | <ul style="list-style-type: none"> Counter check with evidences provided. Audit of procedure application | <ul style="list-style-type: none"> See Table A-2 |

Table A-2: (Project specific) Periodic Verification Checklist

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
|---|-----------|---|-----------------|-----------------|
| A. General Description of the project activity | | | | |
| A.1. Brief description of the project activity (EB 54 Annex 34, A.1) Check if section A.1 of the MR includes the following: <ul style="list-style-type: none"> - Purpose of the PA and the measures taken to reduce GHG emissions - Brief description of the installed technology and equipments - Relevant dates for the project activity (e.g. construction, commissioning, continued operation periods etc. - Total emission removals achieved in this monitoring period | /MR/ | The verification team has checked section A.1 of the MR and confirms that the information provided is complete and correct with regards to the following: <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Purpose of the PA and the measures taken to reduce GHG emissions <input checked="" type="checkbox"/> Brief description of the installed technology and equipments <input checked="" type="checkbox"/> Relevant dates for the project activity (e.g. construction, commissioning, continued operation periods etc <input checked="" type="checkbox"/> Total emission removals achieved in this monitoring period In this context the following findings have been identified: CAR A1: A.1 point 4.Total emission reduction: The explanation given in this section belongs to section D.2 (DBH) and section E.6. Further it has not been justified in the MR why EB 63 Annex 27 is applicable for this change. | CAR A1 | OK |
| A.2. Project Participants (EB 54 Annex 34, A.2) Check if section A.2 of the MR includes the following: <ul style="list-style-type: none"> - All PPs as displayed on the UNFCCC website | /MR/ | The verification team has checked section A.2 of the MR and confirms that the information provided is complete and correct with regards to the following: <ul style="list-style-type: none"> <input checked="" type="checkbox"/> All PPs as displayed on the project related UNFCCC website are correctly listed | | |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
|--|----------------------------------|---|--------------|--------------|
| | | In this context the following findings have been identified: N/A | | |
| A.3. Location of the Project Activity (EB 54 Annex 34, A.3) <i>Check if section A.3 of the MR reflects correctly the following:</i> <ul style="list-style-type: none"> - Address of the project location - Latitude and Longitude | /MR/ /PDD/ /IM01/ /XLS/ | The verification team has checked section A.3 of the MR and confirms by means of comparison with the information given in the PDD and information gathered during the site visit that the information provided is complete and correct with regards to the following: <ul style="list-style-type: none"> <input checked="" type="checkbox"/> The address has been correctly given in the MR <input checked="" type="checkbox"/> Latitude and Longitude are in line with the information given in the PDD and reflects the actual location of the PA. A complete list with coordinates of the whole project boundary is included in the excel spreadsheet and has been submitted as GIS shape files. The coordinates reported in the MR are reflecting four points of the project area. In this context the following findings have been identified: N/A | OK | OK |
| A.4. Technical description of the project (EB 54 Annex 34, A.4) <i>Check if section A.4 of the MR correctly describes / includes the following:</i> <ul style="list-style-type: none"> - Detailed description of the technology applied - Diagrams | /MR/ /PDD/ /IM01/ | The verification team has checked section A.4 of the MR and confirms by means of comparison with the information given in the PDD and information gathered during the site visit that the information provided is complete and correct with regards to the following: <ul style="list-style-type: none"> <input type="checkbox"/> The description of the technology applied is complete and appropriate <input type="checkbox"/> Appropriate diagrams (maps) have been included in the | CAR A2 | OK |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
|--|------------------------------------|--|-------------------|-----------------|
| | | <p>description</p> <p>In this context the following findings have been identified:</p> <p>CAR A2: A.4: In this section under “Supplemental planting” no information is given on survival rate checking and re-planting activities.</p> <p>Further no map has been included in this section showing the different strata and means of implementation (natural reg. and planting).</p> | | |
| <p>A.5. Title, reference and version of the baseline and monitoring methodology applied to the project (EB 54 Annex 34, A.5)</p> <p><i>Check if section A.5 of the MR correctly describes / includes the following:</i></p> <ul style="list-style-type: none"> - Reference to the applicable version of the methodology - Reference to the applicable version(s) of relevant methodological tools - Relevant EB decisions, if applicable | <p>/MR/ /PDD/ /unfccc/</p> | <p>The verification team has checked section A.5 of the MR and confirms by means of comparison with the information given in the PDD and displayed on the UNFCCC website that the information provided is complete and correct with regards to the following:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Name and version of the applicable CDM Methodology <input type="checkbox"/> Name and version of applicable CDM methodological tools <input type="checkbox"/> Relevant EB decisions <p>In this context the following findings have been identified:</p> <p>CAR A3: A.5: In this section information is missing about all tools applicable and all EB decisions considered for this monitoring period.</p> | <p>CAR A3</p> | <p>OK</p> |
| <p>A.6. Registration date of the project activity (EB 54 Annex 34, A.6)</p> <p><i>Check if section A.6 of the MR correctly includes the</i></p> | <p>/MR/ /unfccc/</p> | <p>The verification team has checked section A.6 of the MR and confirms by means of comparison with the information displayed on the UNFCCC website that the information provided is complete and correct with regards to the following:</p> | <p>OK</p> | <p>OK</p> |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
|---|------------------|--|-----------------|-----------------|
| <i>following:</i> <ul style="list-style-type: none"> - <i>Registration date</i> | | <input checked="" type="checkbox"/> Registration date In this context the following findings have been identified: N/A | | |
| A.7. Crediting period of the PA and related information (EB 54 Annex 34, A.7) Check if section A.7 of the MR correctly includes the following: <ul style="list-style-type: none"> - <i>Start date of the crediting period. In this context please check, if applicable, whether post registration changes to the start date have been accepted by the EB.</i> - <i>Length and type of the crediting period</i> | /MR/ /unfccc/ | The verification team has checked section A.7 of the MR and confirms by means of comparison with the information displayed on the UNFCCC website that the information provided is complete and correct with regards to the following: <input checked="" type="checkbox"/> Start date of the crediting period. <input checked="" type="checkbox"/> Type and length of the crediting period In this context the following findings have been identified: N/A | OK | OK |
| A.8. Name of the responsible person(s) / entity/(ies) (EB 54 Annex 34, A.8) Check if section A.8 of the MR correctly includes the following: <ul style="list-style-type: none"> - <i>Contact information of the person(s)/entity(ies) responsible for completing the MR.</i> | /MR/ /IM/ | The verification team has checked section A.8 of the MR and confirms by means of interviews with the PP that the information provided is complete and correct with regards to the following: <input checked="" type="checkbox"/> Contact information of the person(s) / entity (ies) responsible for completing the MR. In this context the following findings have been identified: N/A | OK | OK |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
|--|---------------------------|--|----------------------------|-----------------|
| | | | | |
| B. Implementation of the project activity | | | | |
| B.1. Implementation status of the project | | | | |
| B.1.1. Initial project implementation (EB 55 Annex 1, §§ 182, 195-201) <i>Assess whether the project has been implemented and operated as per the registered PDD and are all physical features of the project in place?</i> <i>Further focus on the potential phase wise implementation and check the reporting on the corresponding status and starting dates accordingly.</i> <i>Also, discuss – if applicable – any approvals of the necessary request of notification or request for approval of changes from the project activity as described in the registered PDD (EB 48 Annex 66/67).</i> | /IM01/ /PDD/ /LEAK/ | <p><i>Description:</i> The project start date was on 1st of December 2006, which is the beginning of the fiscal year in Ethiopia. At that time also project implementation was initiated. Project implementation consisted of protection of natural regeneration in four strata (1, 2, 3, 4) and planting of trees (stratum 5) in stratum 3, wherever planting was necessary. In the initial planning around 500 ha out of the project area were foreseen for supplementary planting, until today only 50.7 ha have been planted (with <i>Eucalyptus globulus</i>, <i>Grevillea robusta</i>) phase wise in the years 2007, 2008, 2009, 2010 and 2011. By 2011 the plantings have been concluded.</p> <p>Live fences have been established all around the project boundary since beginning of the project activity using <i>Agave Americana</i> or natural objects and geographical boundaries have been recognized as fences.</p> <p>Agreements have been signed with the communities to protect the project area and to maintain a sustainable forest management under the supervision of World Vision forest staff. The management is also supported and supervised by the local government forest units.</p> <p>Compensations for affected farmers and trainings have been</p> | CAR B2 CAR B3 | OK |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
|--|-----------|--|-----------------|-----------------|
| | | <p>provided to ensure the project idea is working and the boundary is respected.</p> <p>In the PDD a buffer zone planting was foreseen. This has been realized as additional seedlings grown in the projects nurseries have been given to the community members to grow trees or forests on their private land.</p> <p><i>Justification of evidences:</i> During site visit implementation records have been checked, like nursery records, planting activity records, fencing activity records, training records. Further the different forest strata have been visited. Buffer zone planting (outside the project boundary) could be observed.</p> <p>Some Interviews have been carried out with cooperative members to see how communities have been affected and compensated.</p> <p><i>Conclusion:</i> The project implementation took place within the range that has been described in the PDD. Supplementary planting, buffer zone planting and live fences have been established. The supplementary planting is less than estimated in the PDD but finally concluded in 2011. The buffer zone planting has been realised as giving seedlings to the farmers to grow their own forests in their yards for fuel wood to take out the pressure from the project site and to avoid leakage. From the verifiers perspective these measures were successful. The fencing measures were concluded in 2010. The fence is not yet fully grown but quite visible for everybody as <i>Agave</i> is a very eye-catching species. Due to the observed good growth of the natural species and planted species the verification team concluded that the project boundary is respected by the farmers</p> | | |



| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
|--|-----------|---|-----------------|-----------------|
| | | <p>and they stick to their agreements with World Vision.</p> <p>Further interviews were showing that farmers were compensated for losing possibility of charcoal production and open grazing. They have been trained in other agricultural farming techniques, forest management for sustainable fuel wood production or even some people were trained as tailors and get financing for sewing machines. Further they have been organized to only cut fodder manually without bringing livestock to the project area.</p> <p>Findings have been raised due to incompleteness of MR:</p> <p>CAR B2:</p> <p>MR B.1: 1. The starting date...: The date given for starting plantation activities (05/06/2007) is contradicting to the date given in section A.1: 3. Relevant dates... (15/07/2007) and table B.1. Clarification and correction is requested.</p> <p>MR B.1: 2.1. Plantation activities. No information has been included in this section that the planting activities have been concluded in 2011 as evidenced during site visit. Further the exact area of plantation is not given in this section.</p> <p>MR B.1: 2.3. Community engagement No information has been given in this section that the management activities will be handed over from World Vision Ethiopia to the local government and communities by end of 2012 and how sustainability of the project will be secured.</p> | | |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
|---|---|---|-----------------|-----------------|
| | | <p>MR B.1: 2.3. Community engagement (below table): Paragraph about replanting belongs to section “1. Plantation activities” above.</p> <p>CAR B3:</p> <p>MR B.4: The list of minor changes is not complete for the following:</p> <ul style="list-style-type: none"> ▪ Measurement of trees $\leq 2\text{cm}$ instead of $\leq 4\text{cm}$ (p). ▪ Re-stratification and no. of sample plots (m). <p>Further justification is missing why these changes fall under EB63 Annex 27.</p> | | |
| <p>B.1.2. Technical equipment changes (EB 55 Annex 1, § 187)</p> <p><i>Check if relevant technical equipment of the project activity has been exchanged or modified during the monitoring period. Further ensure that consistent notations of key equipment (meters etc.) in PDD, MR and calculation spreadsheet are applied</i></p> <p><i>Consider e.g. interviews with operational personnel, QMS records, maintenance records, instrument specifications.</i></p> <p><i>In case of changes, check whether the project is still in line with the registered PDD and assure that these changes have been considered in the monitoring report and the emission removal calculation.</i></p> <p><i>Also, discuss –if applicable- any approvals of the</i></p> | <p>/IM01/ /IM02/ /IM03/ /XLS/ /PDD/ /IPCC-LU/ /OP/ /EQUI/ /GIS/</p> | <p><i>Description:</i></p> <p>See also description under 1.1.</p> <p>Technical: The management plan as given in the PDD has been followed in terms of tree species used for supplementary planting, provenience and land preparation^{/IM02/}. Even though only some of the initially suggested species have been supplementary planted, they are covered by the PDD. All changes in implementation are insignificant and still in accordance with the PDD and were adapted to the special site conditions which gain awareness during the implementation phase but could not be foreseen during the planning stage. Changes in the implementation did not lead to significant changes in estimated GHG removals as the growth performance will not change and species selection over the project site is still covered by the PDD. Further all changes are covered by EB 63 Annex 27.</p> | CAR B4 | OK |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
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| <i>necessary request of notification or request for approval of changes from the project activity as described in the registered PDD (EB 48 Annex 66/67).</i> | | <p>No measures in terms of fertilization have been performed during implementation and site preparation followed best practice with lowest soil disturbance as possible. Only hole digging (0.3m * 0.3m * 0.2m) with small impact and weeding around the hole has been performed^{/IM01,2,3//XLS/}. In total the soil disturbance with 4.35 ha of the total project area of 2,728 ha represents not more than 0.16%, which is considered to be of absolutely low impact.</p> <p>Sampling: Sample plots have been established as part of the monitoring plan. As registered in the PDD a random systematic approach has been applied using ARC GIS software. A technical GIS expert has developed the sampling design as per the following: each stratum of the project area has been projected as a shape file as vector data in ARC GIS. Then the possible number of sample plots within each stratum has been calculated assuming a radius of 14m circle for each sample plot (~615 m²). To allow a systematic sampling a raster has been chosen with 25m x 25m in a way that each raster intersection reflects an area of 625 m². This raster has been transformed in GIS as raster data. Finally this raster has been again converted into point data, showing each intersection point as a possible sample plot centre point.</p> <p>For each stratum the amount of sample plots has been calculated in advance. Out of this amount of plots for each stratum a certain interval has been calculated to determine the interval between the single sample plots. To determine the first plot in one stratum a random approach has been used using ARC GIS software, which selects randomly one point out of the</p> | | |

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| | | <p>point data set of each stratum. Starting with the randomly selected point the calculated interval has been used to determine the remaining sample points in each stratum. From the ARC GIS software the coordinates of all selected points have been recorded and transferred to the GPS to identify the points in the projects area. A WGS 84 projected coordinate system has been used in GIS. These data have been transformed to WGS 84 geographical system to use them with the GPS.</p> <p>Stratification: Re-stratification has been carried out to ensure the homogeneity of each stratum and to reduce variance in the statistical calculation approach. As per changing site conditions since project implementation some changes to the different strata have occurred. Due to special soil and growth conditions some strata had better growth than initially identified. Others had less good conditions that initially identified. Thus re-stratification took place at three areas in the project boundary. Parts of former stratum 2 have been changed to stratum 3 as better growth has been observed here and parts of stratum 3 have been changed to stratum 4 as very poor growth performance could be observed here. Finally the plantation sites have been concluded and finally mapped as stratum 5. All strata boundaries have been recorded with GPS and GIS and shape files have been developed.</p> <p><i>Justification of evidences:</i></p> <p>The verification team visited 10 different sample plots in all strata 1-5 to check selection, location and implementation and execution of monitoring measurements. Further stratification</p> | | |

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| | | <p>borders could be observed from mountain tops giving view over the total project area. Also using Google maps one can identify the different growth intensity of the area.</p> <p>Interviews were performed with local forest management staff and workers about the implementation, management and protection of the sites. GIS expert and project management have been interviewed about sampling design. The whole development of sampling design has been showed to the validation team during site visit.</p> <p>For sampling and stratification shape file and maps have been developed. The same have been provided to the verification team.</p> <p><i>Conclusion:</i></p> <p>Technical: The technical plantation set-up has been performed as described in the PDD and according to good forest practice. Smaller changes adapting to site conditions can be accepted as per EB 63 Annex 27.</p> <p>Sampling: The sampling design follows best forest practice. Further the random systematic approach has been implemented as described in the PDD. The number of sample points has been changed from the PDD due to re-stratification. This is covered by the methodology and EB 63 Annex 27.</p> <p>Stratification: Re-stratification has been done as per best forest practice to reduce variance of the sampling. It can be considered complete and accurate as per observation during</p> | | |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
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| | | <p>site visit.</p> <p>CAR B.1: 1) During site visit it was identified that one plantation site of stratum 5 has been added to the project boundary, as per the GIS map, that was not registered in the PDD. The project participant is requested to remove this area as boundary extension is not possible after registration. It shall further be clarified whether this exclusion will have a significant impact on the stratification and sampling design.</p> <p>2) Respective changes in stratum boundary need to be consistent all over the MR and calculation.</p> | | |
| <p>B.1.3. Operation of the project activity (EB 55 Annex 1, § 195)</p> <p><i>Check if relevant operation modes (forest management) of the project activity have been exchanged or modified during the monitoring period.</i></p> <p><i>Consider e.g. interviews with operational personnel, operation log sheets, data management system records.</i></p> <p><i>In case of changes, check whether the project is still in line with the registered PDD and assure that these changes have been considered in the monitoring report and the emission removal calculation.</i></p> <p><i>Also, discuss – if applicable – any approvals of the necessary request of notification or request for approval of changes from the project activity as</i></p> | <p>/IM02,3/ /XLS/ /MR/ /PDD/ /TRAIN/</p> | <p><i>Description:</i> Measures in terms of pruning and thinning have been performed as described in the PDD. The wood harvested during pruning and thinning has been made available to the communities for fuel wood. All management operations have been taken place under supervision of World Vision forest staff, governmental local forest unit and trained community staff /IM01,2,3//XLS/.</p> <p>Manual collection of fodder by farmers is also allowed to ensure fodder availability for the cattle. Farmers have been trained to ensure that only grasses are cut and no young trees and sprouts are damaged.</p> <p><i>Justification of evidences:</i> Interviews have been performed with farmers and forest staff during site visit. Further the forest sites have been visited. Pruning records and training records have been reviewed.</p> | OK | |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
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| <i>described in the registered PDD (EB 48 Annex 66/67).</i> | | <i>Conclusion:</i> As per means of interviews and direct forest visit the verification team concluded that the operation of forest measures was carried out as per good forest practice and in accordance with the PDD. There is a visible difference between the forest growth performance in the project boundary and surrounding areas. | | |
| B.1.4. Incidents (EB 55 Annex 1, § 187, 208a) <i>Identify if there have been any significant incidents, deviant operation modes and / or downtimes of the equipment?</i> <i>Consider e.g. interviews with operational personnel, operational log sheets, analysis of performance data.</i> | /IM01/ | <i>Description:</i> No significant incidents like forest fires or diseases have been observed in the project boundary. The only change in operation was that until today only 50.7 ha have been supplementary planted instead of 500 ha as planned in the PDD. Over the time some of the areas where no longer considered for planting as natural regeneration was observed. <i>Justification of evidences:</i> Site visit, Interviews and implementation records. <i>Conclusion:</i> No significant incidents have happened. | OK | |
| B.1.5. Legislation Find out whether relevant legislation with effect on the project activity in the host country has been changed. Assess, in case of changes, whether consequences for the PA with regard to relevant CDM requirements have been accounted for. | /POL/ /LU/ /IM02/ | <i>Description:</i> No relevant forest or land use legislation has been changed since project start. In terms of land use rights the project was initiator for giving land use rights officially to communities. As this is a positive example an initiative is underway to give land use rights officially to communities. <i>Justification of evidences:</i> Interviews during site visit and | OK | |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
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| In case of changes data sources shall be referenced. | | relevant legislations have been checked /LEG/ <i>Conclusion:</i> No changes in forest or other relevant legislation took place since implementation of the project activity. | | |
| B.1.6. Open issues from validation (EB 55 Annex 1, §§ 181-183, 188c, 190c) <i>Check (esp. in case of 1st periodic verification) whether there are any open issues indicated in the validation report (e.g. FAR)?</i> | /VAL/ | <input checked="" type="checkbox"/> There were no open issues addressed in the validation report <input type="checkbox"/> All open issues from the validation have been appropriately addressed. <input type="checkbox"/> The following issues related to the validation have not yet been appropriately addressed: | OK | |
| B.1.7. Open issues from previous verification (EB 55 Annex 1, § 193) <i>Check in case of further periodic verifications whether there are any open issues indicated in previous verification reports (FAR) and take into consideration the guidance as specified in VVM.</i> | /unfccc/ | <input checked="" type="checkbox"/> There were no open issues addressed in the previous verification report <input type="checkbox"/> All open issues from the previous verification have been appropriately addressed. <input type="checkbox"/> The following issues related to the previous verification have not yet been appropriately addressed: | OK | |
| B.1.8. Publication of the Monitoring Report <i>Check if the monitoring report has been made publicly available on the UNFCCC website before the verification commenced.</i> <i>Check if comments have been received and if yes, how</i> | /unfccc/ | <i>Description:</i> The monitoring report has been made publicly available two weeks in advance of the site visit on 2012-01-13. Site visit start was 2012-01-30. <i>Justification of evidences:</i> Confirmation e-mail form UNFCCC | OK | |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| <i>they have been addressed.</i> | | and UNFCCC website. <i>Conclusion:</i> The draft monitoring report, as received from the project participants, has been made publicly available prior to the start of the verification activities. No comments have been received. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B.2. Requests for Revisions of MP (EB 55 Annex 1, §§ 201, 203, 219) <i>Check (i) if there have been any requests for revisions of the monitoring plan in the past.and/or (ii) if there is a need for a RfRev. Make sure that the monitoring report reflects the application of the revision as approved by the EB, where applicable. Check in case of approved revisions if the date of approval has been included.</i> | /unfccc/ | <table><tr><td><input checked="" type="checkbox"/></td><td colspan="3">No requests for revisions of the MP have been submitted to the UNFCCC prior to the current monitoring period</td></tr><tr><td rowspan="6"><input type="checkbox"/></td><td rowspan="3">1</td><td>Title</td><td></td></tr><tr><td>Status</td><td><input type="checkbox"/> under approval; <input type="checkbox"/> approved</td></tr><tr><td>Appr.date</td><td></td></tr><tr><td rowspan="3">2</td><td>Title</td><td></td></tr><tr><td>Status</td><td><input type="checkbox"/> under approval; <input type="checkbox"/> approved</td></tr><tr><td>Appr.date</td><td></td></tr><tr><td><input checked="" type="checkbox"/></td><td colspan="3">During the verification of the current MP no need for an RfRev has been identified. The monitoring plan is in accordance with the approved methodology applied by the PA</td></tr><tr><td><input type="checkbox"/></td><td colspan="3">The following revisions of the MP are to be requested from the EB for the current MP</td></tr></table> | <input checked="" type="checkbox"/> | No requests for revisions of the MP have been submitted to the UNFCCC prior to the current monitoring period | | | <input type="checkbox"/> | 1 | Title | | Status | <input type="checkbox"/> under approval; <input type="checkbox"/> approved | Appr.date | | 2 | Title | | Status | <input type="checkbox"/> under approval; <input type="checkbox"/> approved | Appr.date | | <input checked="" type="checkbox"/> | During the verification of the current MP no need for an RfRev has been identified. The monitoring plan is in accordance with the approved methodology applied by the PA | | | <input type="checkbox"/> | The following revisions of the MP are to be requested from the EB for the current MP | | | OK | |
| <input checked="" type="checkbox"/> | No requests for revisions of the MP have been submitted to the UNFCCC prior to the current monitoring period | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | 1 | Title | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | | Status | <input type="checkbox"/> under approval; <input type="checkbox"/> approved | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| <input checked="" type="checkbox"/> | During the verification of the current MP no need for an RfRev has been identified. The monitoring plan is in accordance with the approved methodology applied by the PA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | The following revisions of the MP are to be requested from the EB for the current MP | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | | | | Draft Concl. | Final Concl. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | | | 1 | Issue | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | In this context the following findings have been identified: N/A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B.3. Requests for Deviations applied to this MP (EB 55 Annex 1, §§ 203, 211-219) <i>Check (i) if there have been any requests for deviations in the past and/or (ii) if there is a need for an RfDev. Make sure that the monitoring report reflects the application of the deviation as approved by the EB, where applicable. Check in case of approved deviations if the approval date and reference number has been included.</i> <i>Further check in case of approved RfDev whether the MR appropriately reflects the application of the EB guidance.</i> | /unfccc/ | <table><tr><td><input checked="" type="checkbox"/></td><td colspan="3">No requests for deviations have been submitted to the UNFCCC prior to the current monitoring period</td></tr><tr><td rowspan="8"><input type="checkbox"/></td><td colspan="3">The following RfDev have been approved or are under approval by the UNFCCC</td></tr><tr><td rowspan="4">1</td><td>Title</td><td></td></tr><tr><td>Status</td><td><input type="checkbox"/> under approval; <input type="checkbox"/> approved</td></tr><tr><td>Ref. No.</td><td></td></tr><tr><td>Appr.date</td><td></td></tr><tr><td rowspan="4">2</td><td>Title</td><td></td></tr><tr><td>Status</td><td><input type="checkbox"/> under approval; <input type="checkbox"/> approved</td></tr><tr><td>Ref. No.</td><td></td></tr><tr><td>Appr.date</td><td></td></tr><tr><td><input type="checkbox"/></td><td colspan="3">In case of approved guidance of the EB: The monitoring report reflects the application of the EB guidance regarding the RfDev.</td></tr><tr><td><input checked="" type="checkbox"/></td><td colspan="3">During the verification of the current MP no need for a RfDev has been indentified</td></tr></table> | | | | <input checked="" type="checkbox"/> | No requests for deviations have been submitted to the UNFCCC prior to the current monitoring period | | | <input type="checkbox"/> | The following RfDev have been approved or are under approval by the UNFCCC | | | 1 | Title | | Status | <input type="checkbox"/> under approval; <input type="checkbox"/> approved | Ref. No. | | Appr.date | | 2 | Title | | Status | <input type="checkbox"/> under approval; <input type="checkbox"/> approved | Ref. No. | | Appr.date | | <input type="checkbox"/> | In case of approved guidance of the EB: The monitoring report reflects the application of the EB guidance regarding the RfDev. | | | <input checked="" type="checkbox"/> | During the verification of the current MP no need for a RfDev has been indentified | | | OK | |
| <input checked="" type="checkbox"/> | No requests for deviations have been submitted to the UNFCCC prior to the current monitoring period | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | The following RfDev have been approved or are under approval by the UNFCCC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | Title | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Status | <input type="checkbox"/> under approval; <input type="checkbox"/> approved | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| <input type="checkbox"/> | In case of approved guidance of the EB: The monitoring report reflects the application of the EB guidance regarding the RfDev. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> | During the verification of the current MP no need for a RfDev has been indentified | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. | | | | | | | | |
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| | | <table><tr><td><input type="checkbox"/></td><td colspan="3">The following deviations are to be requested from the EB for the current MP</td></tr><tr><td>1</td><td>Issue</td><td colspan="2"></td></tr></table> <p>In this context the following findings have been identified: N/A</p> | <input type="checkbox"/> | The following deviations are to be requested from the EB for the current MP | | | 1 | Issue | | | | |
| <input type="checkbox"/> | The following deviations are to be requested from the EB for the current MP | | | | | | | | | | | |
| 1 | Issue | | | | | | | | | | | |
| B.4. Initial verification <i>In case an initial verification has been carried out, check if all FARs, recommendations etc. can be confirmed as existent for the periodic verification.</i> | /IVAL/ | This first periodic verification has been started without taking into account observations made during initial verification. A complete first periodic verification has been carried out. Nevertheless at the end of this periodic verification CARs, CLs and FARs of initial verification have been crosschecked with outcome of the first periodic verification. No one of those findings was observed as an issue during the current verification. Thus it can be concluded that findings raised during initial verification are closed. | OK | - | | | | | | | | |
| C. Description of the monitoring system | | | | | | | | | | | | |
| C.1. Management System (EB 55 Annex 1, § 184 a (iii)) <i>Check if the GHG data monitoring system can be assessed as appropriate.</i> <i>In case reference is made to a (certified) company quality management system, check if all CDM related monitoring procedures have been fully integrated in the project participant's quality management system.</i> | /SOP/ /IM02/ | <i>Description:</i> The GHG data monitoring follows project own procedures. Standard operation procedures (SOP) have been developed to define the management of the project with regard to management and monitoring. Further more detailed procedures have been established for project monitoring and sampling. Those procedures are linked to best forest practice guidelines (LULUCF and IPCC). | CAR G1 CAR G2 | OK | | | | | | | | |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
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| <p><i>In case of a stand-alone system, check how the GHG management system has been implemented and effectiveness is ensured.</i></p> | | <p><i>Justification of evidences:</i> During site visit the SOP and other procedures have been provided to the verification team.</p> <p><i>Conclusion:</i> The management system has been followed has defined in the SOP and other procedures. The management system is following best forest practice.</p> <p>Nevertheless the MR is not yet complete for the following information:</p> <p>CAR C1: MR C: Monitoring of the project boundary: In the monitoring methodology it could not be found the given reference that a random sample of 10% of boundary points shall be monitored. Check reference.</p> <p>Further this section does not describe in detail the outcome of the boundary re-measurements nor has it been included in the parameter section D.2. or in the excel sheet. Here only coordinates are given without analysis of the data.</p> <p>CAR C2: MR C: Trainings: No section describing trainings given to communities and WV field staff and management has been included in this section.</p> <p>Sample Design: No information is given what the basis for re-stratification was.</p> <p>Further for the details of sampling design one is referred to the annex of the MR. No annex found in the MR. (Note that only the MR is the written document sent for RfIssuance beside the</p> | | |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
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| | | calculation in excel, thus all necessary information must be covered within the MR). | | |
| C.2. Metering diagram (EB 54 Annex 34, C) <i>Check first if the MR includes a metering diagram showing all relevant monitoring points..</i> <i>Check further if this diagram reflects the actual situation and is in line with the registered PDD and with the requirements of the applied methodology.</i> | /PDD/ /AR-AM0003/ /EB/ /unfccc/ | A diagram has been included in the MR showing the monitoring points including project boundary, forest management and sample points. The diagram is abstracted but shows the actual situation of the project measurement points. It is in line with the PDD, applied methodology and changes are covered by EB 63 Annex 27. | OK | OK |
| C.3. Roles and Responsibilities (EB 54 Annex 34, C) <i>Check if all roles and positions of each person in the GHG data management process are clearly defined and implemented as stated in the monitoring plan. Please consider the complete data trail from raw data generation to submission of the final data.</i> <i>Identify, if relevant personnel w.r.t. monitoring has been exchanged?</i> <i>If so, have appropriate training measures been carried out.</i> <i>In case of changes, assure that the implemented monitoring procedures have not been affected.</i> | /MR/ /IM01,2/ | <p><i>Description:</i> Roles and positions have been identified in the MR in section C. For each step a responsible is identified. Fields of responsibilities are: Training of staff and communities, QC of operation of monitoring equipment, quality control, collection and coordination of field data, calculation of ER, data storage in the field and at head office, sign off of MR and calculations.</p> <p><i>Justification of evidences:</i> MR, site visit</p> <p><i>Conclusion:</i> Roles and positions are clearly identified in the MR. The distribution of the different roles and responsibilities could be evidenced during site visit. Interviews with all assigned persons have been undertaken.</p> <p>CAR B2: (partly) MR B.1: 2.3. Community engagement No information has been given in this section that the management activities will be handed over from World Vision</p> | CAR B2 | OK |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
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| | | Ethiopia to the local government and communities by end of 2012 and how sustainability of the project will be secured. | | |
| C.4. Emergency procedures for the monitoring system (EB 54 Annex 34, C) <i>Check, as appropriate, whether relevant emergency procedures for the monitoring system have been included in the MR and assess whether these procedures have been implemented, when required</i> | /IM02/ /SOP/ /MR/ | <p><i>Description:</i> In the forestry sector the monitoring itself is a long lasting process. Acute reaction in case of failure of equipment will not have any impact on the monitoring itself. If equipment is damaged it can be easily replaced while measurements are stopped. Slow growing of trees will not influence the data accuracy. Nevertheless monitoring equipment has been checked before measurement started. Meter tape and calliper have been double checked with other meter scales.</p> <p>No emergency case has happened during the monitoring period.</p> <p><i>Justification of evidences:</i> interviews during site visit and /SOP/</p> <p><i>Conclusion:</i> Emergency cases in forest monitoring are not expected to impact the measurements. If equipment fails it will be replaced and metering stopped for the moment or repeated if already done. This has been defined in the SOP and MR. The procedure is in line with the monitoring plan.</p> | OK | OK |
| C.5. Data archive and data protection Check whether all records of monitoring parameters are archived according to the monitoring plan. Assess further whether appropriate measures have been taken in order to avoid unintended or intended manipulation or loss of the measured data. | /PLOT/ /IMPL/ /NURS/ /ANRE/ /GIS/ | <p><i>Description:</i> At project level, original data are archived in paper from in the community and project office. The same data are transferred into excel sheets and submitted with copies of original data to the head office. Here a quality control check is done and final excel sheets and reports are stored on a separate hard drive. The hard drive is in hand of the project management only.</p> <p>Coordinates taken with GPS are directly taken to the head office where a GIS expert transfers the data into GIS and shape files.</p> | OK | OK |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
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| | | <p>The project related shape files have been stored in a separate folder. Further copies have been made on CD and hard drive.</p> <p><i>Justification of evidences:</i> Original data in paper form have been checked during site visit. Excel data and reported data /ANRE/ have been compared to original field data.</p> <p><i>Conclusion:</i> The data archive itself is deemed adequate to secure data and data protection. No unauthorized person can manipulate the data.</p> | | |
| D. Data and parameters monitored | | <p>General: In the following checklist only data and parameter are discussed as per latest EB decision EB63 Annex 26. A CAR has been opened to only include those parameters in the section D.2 of the MR.</p> <p>CAR D2: MR D.2: As per the latest Guideline EB 63 Annex 26 only data and parameters obtained from the field measurements are required to be monitored. Monitoring is not required for data, parameters, or variables appearing as intermediate values in calculation steps and those taken from existing sources.</p> | CAR D2 | OK |
| D.1. A | | Description: Total size of all strata (ha) | | |
| <p>a) Measurement / Determination method (EB 55 Annex 1, §§ 184-185, 202-203)</p> <p>Describe how the monitoring parameter was measured / determined.</p> <p>Check if relevant equipment has been exchanged</p> | /IM02/ /PDD/ /AR-AM0003/ /MR/ /XLS/ | <p><i>Description:</i> The total size of all strata has been determined with 2,728 ha after re-checking of the project boundary. This is the same size that has been determined in the registered PDD. The total size of all strata did not change during the monitoring period. Determination of total project area has been done using GIS software and GPS measurements in the field.</p> | OK | OK |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
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| <p><i>and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements.</i></p> <p><i>Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</i></p> | /GIS/ | <p><i>Justification of evidences:</i> GIS shape files of the project boundary have been provided to the DOE. MR, associated spread sheets and the registered PDD have been compared.</p> <p><i>Conclusion:</i> The total size of all strata did not change over the monitoring period. This is on accordance with the PDD and methodology.</p> | | |
| <p>b) Accuracy (EB 55 Annex 1, §§ 205c, 206a)</p> <p><i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs.</i></p> | /XLS/ /GIS/ | <p><i>Description:</i> The determination of area using GIS software is accurate. The use of GPS to delineate the boundary in the field has an overall accuracy of <15m which can be reduced down to 0m depending on availability of satellite during measurement.</p> <p><i>Justification of evidences:</i> GIS shape files, /GPS/</p> <p><i>Conclusion:</i> Using GIS software to determine size of a geographical area is an accurate method and state of the art technology. The accuracy of this method is confirmed by the verification team. The accuracy of the GPS is confirmed to be standard for field GPS devices.</p> | CAR D4 | OK |
| <p>c) QA/QC Procedure (EB 55 Annex 1, §§ 184b (vii), 205c, 206)</p> <p><i>Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line</i></p> | /XLS/ /GIS/ /QA/QC/ /TRAIN/ | <p><i>Description:</i> To check the project boundary a 10% check has been carried out as part of the monitoring. (See also other parameter description). The monitoring of 10% boundary points did not lead to any change in the project area.</p> | CAR D4 | OK |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
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| <i>with the latest EB guidance.</i> | | <p><i>Justification of evidences:</i> Original field data coordinates from cross checking the project boundary taken by the project manager has been checked.</p> <p><i>Conclusion:</i> QA/QC measurements did not lead to a change in project boundary, thus the area remains the same since project start.</p> <p>Nevertheless a CAR D4 has been opened: CAR D4: Calibration Clarification is necessary whether real calibration is necessary for GPS, meter tape and calliper. Respective information/clarification has not been included in the parameter tables.</p> | | |
| <p>d) Correctness (EB 55 Annex 1, §§ 202, 206, 221e)</p> <p><i>Determine whether the value given in the monitoring report is correct or determined in a conservative manner.</i></p> <p><i>In case of conservative approaches used in lieu of the monitoring as per registered MP detailed assessment of the conservativeness of the approach used should be given.</i></p> <p><i>In case of mistakes / deviations pl. provide details and descriptions of the CARs raised.</i></p> | /MR/ | <p><input type="checkbox"/> Correct <input checked="" type="checkbox"/> Not correct</p> <p><i>Description:</i> The total area remains the same as in the registered PDD. No changes have been identified during re-measurement of project boundary</p> <p><i>Justification of evidences:</i> see above and site visit</p> <p><i>Conclusion:</i> The value of total size of all strata is correct. Further information is missing in the MR.</p> | CAR D3 | OK |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
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| | | CAR D3: MR D.2: All parameters where GPS is used: No information is given in the parameter table about the specifications of the GPS (accuracy and whether calibration is necessary). | | |
| D.2. Ai | | Description: Area of stratum i (ha) | | |
| a) Measurement / Determination method (EB 55 Annex 1, §§ 184-185, 202-203) <i>Describe how the monitoring parameter was measured / determined.</i> <i>Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements.</i> <i>Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</i> | /IM02/ /PDD/ /AR-AM0003/ /MR/ /XLS/ /GIS/ | <i>Description:</i> The total size of each stratum has been determined after re-stratification of the project area. Re-stratification has been done in accordance with the methodology to create most homogenous strata for the sampling design. Re-stratification has been done on the ground using GPS. The mapping has been done using GIS software. <i>Justification of evidences:</i> GIS shape files of the project boundary including all strata have been provided to the DOE. MR, /XLS/ and PDD have been compared. During site visit the DOE could visit the forest area and could identify all strata to be determined correctly, while hiking through the project area and travelling along the border by car. Further Google map was consulted where the satellite image clearly shows distinction between the different strata. <i>Conclusion:</i> The size of each stratum has been changed within the project boundary in accordance with the PDD and methodology under Re-stratification procedure. Adequate measurement and analysis tools have been used for the | OK | OK |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
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| | | determination. | | |
| b) Accuracy (EB 55 Annex 1, §§ 205c, 206a) <i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs.</i> | /CAL/ /MM/ | <p><i>Description:</i> The determination of area using GIS software is accurate. The use of GPS to delineate the boundary in the field has an overall accuracy of <15m which can be reduced down to 0m depending on availability of satellite during measurement.</p> <p><i>Justification of evidences:</i> GIS shape files, /GPS/</p> <p><i>Conclusion:</i> Using GIS software to determine size of a geographical area is an accurate method and state of the art technology. The accuracy of this method is confirmed by the verification team. The accuracy of the GPS is confirmed to be standard for field GPS devices.</p> | CAR D4 | OK |
| c) QA/QC Procedure (EB 55 Annex 1, §§ 184b (vii), 205c, 206) <i>Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.</i> | /XLS/ /GIS/ /TRAIN/ | <p><i>Description:</i> Trainings have been carried out to ensure the field staff handling with GPS device and recognition of different strata in the forest.</p> <p><i>Justification of evidences:</i> /TRAIN/ and site visit</p> <p><i>Conclusion:</i> Training is an adequate measure to ensure quality of the data taken on the ground.</p> <p>Nevertheless a CAR D4 has been opened: CAR D4: Calibration Clarification is necessary whether real calibration is necessary</p> | CAR D4 | OK |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
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| | | for GPS, meter tape and calliper. Respective information/clarification has not been included in the parameter tables. | | |
| <p>d) Correctness (EB 55 Annex 1, §§ 202, 206, 221e) <i>Determine whether the value given in the monitoring report is correct or determined in a conservative manner.</i> <i>In case of conservative approaches used in lieu of the monitoring as per registered MP detailed assessment of the conservativeness of the approach used should be given.</i> <i>In case of mistakes / deviations pl. provide details and descriptions of the CARs raised.</i></p> | <p>/MR/ /GIS/ /IM02/ /VISIT/</p> | <p><input type="checkbox"/> Correct <input checked="" type="checkbox"/> Not correct</p> <p><i>Description:</i> The way of using GPS and GIS software is ensured and correct as could be evidenced during site visit. Stratification has been done as per growth performance of the trees in certain areas.</p> <p>The data for each stratum have been defined as the following: Stratum 1: 233.48 ha Stratum 2: 630.71 ha Stratum 3: 1698.71 ha Stratum 4: 114.41 ha Stratum 5: 50.7 ha (Plantations only)</p> <p><i>Justification of evidences:</i> /GIS/ maps, site visit</p> <p><i>Conclusion:</i> The area of stratum 5 includes a plantation site outside the project boundary. Therefore a CAR has been included to remove this site. As normally stratum 5 is embedded in stratum 3 the total project area will not change when deducting the plantation site.</p> | <p>CAR B1 CAR D3</p> | <p>OK</p> |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
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| | | <p>CAR B1:</p> <p>1) During site visit it was identified that one plantation site of stratum 5 has been added to the project boundary, as per the GIS map, that was not registered in the PDD. The project participant is requested to remove this area as boundary extension is not possible after registration. It shall further be clarified whether this exclusion will have a significant impact on the stratification and sampling design.</p> <p>2) Respective changes in stratum boundary need to be consistent all over the MR and calculation.</p> <p>CAR D3:</p> <p>MR D.2: All parameters where GPS is used: No information is given in the parameter table about the specifications of the GPS (accuracy and whether calibration is necessary).</p> | | |
| D.3. A, ikt | | Description: Area of stratum i, stand model k, at time t | | |
| <p>a) Measurement / Determination method (EB 55 Annex 1, §§ 184-185, 202-203)</p> <p>Describe how the monitoring parameter was measured / determined.</p> <p>Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the</p> | <p>/IM02/ /PDD/ /AR-AM0003/ /MR/ /XLS/ /GIS/</p> | <p><i>Description:</i> same as for A_i as each stratum has only one stand model.</p> <p><i>Justification of evidences:</i></p> <p><i>Conclusion:</i></p> | OK | OK |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
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| frequency of measurements as per the requirements. <i>Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</i> | | | | |
| b) Accuracy (EB 55 Annex 1, §§ 205c, 206a) <i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs.</i> | /CAL/ /MM/ | <i>Description:</i> same as for Ai as each stratum has only one stand model. <i>Justification of evidences:</i> <i>Conclusion:</i> | OK | OK |
| c) QA/QC Procedure (EB 55 Annex 1, §§ 184b (vii), 205c, 206) <i>Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.</i> | /XLS/ /GIS/ /TRAIN/ | <i>Description:</i> same as for Ai as each stratum has only one stand model. <i>Justification of evidences:</i> <i>Conclusion:</i> | OK | OK |
| d) Correctness (EB 55 Annex 1, §§ 202, 206, 221e) <i>Determine whether the value given in the monitoring report is correct or determined in a conservative manner.</i> | /MR/ /GIS/ /IM02/ /VISIT/ | <input type="checkbox"/> Correct <input type="checkbox"/> Not correct <i>Description:</i> same as for Ai as each stratum has only one stand model. <i>Justification of evidences:</i> | OK | OK |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
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| <p><i>In case of conservative approaches used in lieu of the monitoring as per registered MP detailed assessment of the conservativeness of the approach used should be given.</i></p> <p><i>In case of mistakes / deviations pl. provide details and descriptions of the CARs raised.</i></p> | | Conclusion: | | |
| D.4. AB, ijt | | Description: Area of slash and burn in stratum i, species j, at time t | | |
| <p>a) Measurement / Determination method (EB 55 Annex 1, §§ 184-185, 202-203)</p> <p><i>Describe how the monitoring parameter was measured / determined.</i></p> <p><i>Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements.</i></p> <p><i>Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</i></p> | /IM02,3/ /PDD/ /MR/ | <p><i>Description:</i> No slash and burn carried out during project preparation.</p> <p><i>Justification of evidences:</i> Interviews have been carried out with community members and fields staff confirming that during site preparation no slash and burn activities have been carried out.</p> <p><i>Conclusion:</i> No slash and burn activities have been carried out. Thus this parameter does not need to be included as project emissions.</p> | OK | OK |
| <p>b) Accuracy (EB 55 Annex 1, §§ 205c, 206a)</p> <p><i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance</i></p> | | <p><i>Description:</i> No slash and burn carried out during project preparation.</p> <p><i>Justification of evidences:</i> n/a</p> | OK | OK |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
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| <i>with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs.</i> | | Conclusion: n/a | | |
| c) QA/QC Procedure (EB 55 Annex 1, §§ 184b (vii), 205c, 206) <i>Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.</i> | | <i>Description:</i> No slash and burn carried out during project preparation. <i>Justification of evidences:</i> n/a <i>Conclusion:</i> n/a | OK | OK |
| d) Correctness (EB 55 Annex 1, §§ 202, 206, 221e) <i>Determine whether the value given in the monitoring report is correct or determined in a conservative manner.</i> <i>In case of conservative approaches used in lieu of the monitoring as per registered MP detailed assessment of the conservativeness of the approach used should be given.</i> <i>In case of mistakes / deviations pl. provide details and descriptions of the CARs raised.</i> | /MR/ | <input checked="" type="checkbox"/> Correct <input type="checkbox"/> Not correct <i>Description:</i> No slash and burn carried out during project preparation. <i>Justification of evidences:</i> Interviews have been carried out with community members and fields staff confirming that during site preparation no slash and burn activities have been carried out. <i>Conclusion:</i> No slash and burn activities have been carried out. Thus this parameter does not need to be included as project emissions. | OK | OK |
| D.5. AP | | Description: Sample plot area (m ²) | | |
| a) Measurement / Determination method | /IM02/ /PDD/ | <i>Description:</i> For the field measurements a nested circular sample plot design has been chosen. The sample plots have a | OK | OK |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
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| <p>(EB 55 Annex 1, §§ 184-185, 202-203)</p> <p><i>Describe how the monitoring parameter was measured / determined.</i></p> <p><i>Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements.</i></p> <p><i>Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</i></p> | /MR/ /XLS/ /VISIT/ | <p>radius of 1m, 4m, 14m and 20m resulting in an area of 3.14m², 50.26m², 614.75m² and 1256.62m² respectively.</p> <p>This sample plot design has been determined in the PDD and has been applied in the field. The area has been measured in the field using a meter tape from the centre of each plot that is commonly used in forest inventories.</p> <p><i>Justification of evidences:</i> XLS, MR, PDD and re-measurements of sample plots during the site visit.</p> <p><i>Conclusion:</i> The sample plot area is important for the calculation of the measured biomass data from plot level to ha level. The area has been defined correctly using excel calculation function: =PI()*radius^2.</p> | | |
| <p>b) Accuracy</p> <p>(EB 55 Annex 1, §§ 205c, 206a)</p> <p><i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs.</i></p> | /TRAIN/ /XLS/ /PDD/ | <p><i>Description:</i> The area has been defined using excel calculation function: =PI()*radius^2. This is the applicable formula to determine area of a circle.</p> <p>The layout of the plot area in the field has been done with an accuracy normal for forest inventories by using a meter tape with a cm scale. The centre point has been determined using a GPS with an accuracy of <15m. From this pre-defined centre point the measurement has been carried out with accuracy in the cm-range.</p> <p><i>Justification of evidences:</i> XLS, MR, PDD and re-measurements of sample plots during the site visit.</p> | OK | OK |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
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| | | <i>Conclusion:</i> The accuracy of determining the sample plot area has been observed by the verification team during site visit while the forest staff performed re-measurements. No failures have been detected in metering the plot radius. | | |
| c) QA/QC Procedure (EB 55 Annex 1, §§ 184b (vii), 205c, 206) <i>Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.</i> | /QAQC/ /TRAIN/ /XLS/ /PDD/ | <i>Description:</i> Sample plot re-measurements have been carried out by an independent person (project management) after the field visit has been concluded on >10% of all Sample Plots (10 out of 85). Those re-measurements contained coordinate check, plot measurement, dbh and species determination. <i>Justification of evidences:</i> The results and original field data records of the QAQC check have been handed over to verification team. /XLS/. Field team has been sufficiently trained /TRAIN/ <i>Conclusion:</i> The 10% re-measurements as defined in the monitoring plan have been carried out. No significant errors have been identified between original measurements and re-measurements. A total error of 0.3% has been identified, which is absolutely insignificant for forest measurement practice. The verification concludes that the sample plot measurements have been carried out as per the best forest practice with an appropriate accuracy. | OK | OK |
| d) Correctness (EB 55 Annex 1, §§ 202, 206, 221e) | /MR/ | <input type="checkbox"/> Correct <input checked="" type="checkbox"/> Not correct <i>Description:</i> The measurement method has been done correctly | CAR D3 CAR | OK |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
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| <p><i>Determine whether the value given in the monitoring report is correct or determined in a conservative manner.</i></p> <p><i>In case of conservative approaches used in lieu of the monitoring as per registered MP detailed assessment of the conservativeness of the approach used should be given.</i></p> <p><i>In case of mistakes / deviations pl. provide details and descriptions of the CARs raised.</i></p> | | <p>and as per best forest practice.</p> <p><i>Justification of evidences: /VISIT//MR//XLS/</i></p> <p><i>Conclusion:</i> The application of the values and their measurement has been correctly done in all project documentation, nevertheless following need clarification/correction:</p> <p>CAR D3: Parameter AP (Sample plot area): The values included (1m, 4m, 14m, 20m) appear in m and not in m² as requested by the methodology.</p> <p>CAR D4: MR D.2: Calibration Clarification is necessary whether real calibration is necessary for GPS, meter tape and calliper.</p> <p>Respective information/clarification has not been included in the parameter tables.</p> | D4 | |
| D.6. Area of planted strata | | Description: Area of planted strata | | |
| <p>a) Measurement / Determination method (EB 55 Annex 1, §§ 184-185, 202-203)</p> <p><i>Describe how the monitoring parameter was</i></p> | /IM02/ /MR/ /GIS/ | <p><i>Description:</i> After all areas assigned for planting have been planted from year 2007 to 2011 the same areas have been monitored and determined using a GPS to identify the total area</p> | OK | OK |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
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| <p><i>measured / determined.</i></p> <p><i>Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements.</i></p> <p><i>Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</i></p> | | <p>of this stratum 5. Using GIS software the area has been determined.</p> <p><i>Justification of evidences:</i> GIS maps have been made available to the verification team together with the shape files showing all planted areas. During site visit some of those planted areas have been visited and coordinates have been checked.</p> <p><i>Conclusion:</i> The area of stratum 5 has been correctly determined using state of the art technology.</p> | | |
| <p>b) Accuracy (EB 55 Annex 1, §§ 205c, 206a)</p> <p><i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs.</i></p> | /GIS/ /GPS/ | <p><i>Description:</i> The determination of area using GIS software is accurate. The use of GPS to delineate the boundary in the field has an overall accuracy of <15m which can be reduced down to 0m depending on availability of satellite during measurement.</p> <p><i>Justification of evidences:</i> GIS shape files, /GPS/</p> <p><i>Conclusion:</i> Using GIS software to determine size of a geographical area is an accurate method and state of the art technology. The accuracy of this method is confirmed by the verification team. The accuracy of the GPS is confirmed to be standard for field GPS devices.</p> | OK | OK |
| <p>c) QA/QC Procedure (EB 55 Annex 1, §§ 184b (vii), 205c, 206)</p> <p><i>Describe whether all applicable QA/QC procedures</i></p> | /TRAIN/ /VISIT/ | <p><i>Description:</i> Trainings have been carried out to ensure the field staff handling with GPS device and recognition of different strata in the forest.</p> | CAR D4 | OK |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
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| are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance. | | <p><i>Justification of evidences: /TRAIN/ and site visit</i></p> <p><i>Conclusion: Training is an adequate measure to ensure quality of the data taken on the ground.</i></p> <p>Nevertheless a CAR D4 has been opened: CAR D4: Calibration Clarification is necessary whether real calibration is necessary for GPS, meter tape and calliper. Respective information/clarification has not been included in the parameter tables.</p> | | |
| <p>d) Correctness (EB 55 Annex 1, §§ 202, 206, 221e)</p> <p><i>Determine whether the value given in the monitoring report is correct or determined in a conservative manner.</i></p> <p><i>In case of conservative approaches used in lieu of the monitoring as per registered MP detailed assessment of the conservativeness of the approach used should be given.</i></p> <p><i>In case of mistakes / deviations pl. provide details and descriptions of the CARs raised.</i></p> | /MR/ | <p><input type="checkbox"/> Correct <input checked="" type="checkbox"/> Not correct</p> <p><i>Description: The way of using GPS and GIS software is ensured and correct as could be evidenced during site visit. Stratification has been done as per growth performance of the trees in certain areas.</i></p> <p><i>Justification of evidences: /GIS/ maps, site visit</i></p> <p><i>Conclusion: The area of stratum 5 includes a plantation site outside the project boundary. Therefore a CAR has been included to remove this site. As normally stratum 5 is embedded in stratum 3 the total project area will not change when</i></p> | <p>CAR B1</p> <p>CAR D3</p> | OK |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
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| | | <p>deducting the plantation site.</p> <p>CAR B1:</p> <p>1) During site visit it was identified that one plantation site of stratum 5 has been added to the project boundary, as per the GIS map, that was not registered in the PDD. The project participant is requested to remove this area as boundary extension is not possible after registration. It shall further be clarified whether this exclusion will have a significant impact on the stratification and sampling design.</p> <p>2) Respective changes in stratum boundary need to be consistent all over the MR and calculation.</p> <p>CAR D3:</p> <p>MR D.2: All parameters where GPS is used: No information is given in the parameter table about the specifications of the GPS (accuracy and whether calibration is necessary).</p> <p>CAR D3 Parameter: Area of planted strata: Clarification is requested with respect to recording frequency: "At end of year 1". Is end of year 1, one year after project start (2007) or one year after planting the area? Further a value in (ha) is missing in the parameter table.</p> | | |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
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| D.7. DBH | | Description: Diameter at breast height of living and standing dead trees | | |
| <p>a) Measurement / Determination method (EB 55 Annex 1, §§ 184-185, 202-203)</p> <p><i>Describe how the monitoring parameter was measured / determined.</i></p> <p><i>Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements.</i></p> <p><i>Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</i></p> | /IM02/ /PDD/ /VISIT/ /SOP/ | <p><i>Description:</i> The DBH has been measured as per common forest inventory practice at 1,30m from the ground considering given local circumstances. The DBH is measured using a calliper for small trees or a diameter tape is used for bigger trees. All trees above 2 cm in diameter have been considered for the measurement and volume calculations.</p> <p>Within radius of 1 m all trees <2-5cm have been measured. Within a radius of 4m all trees >5cm-20cm have been measured. Within a radius of 14m all trees >20cm-50cm have been measured and within radius of 20m all bigger trees are measured.</p> <p><i>Justification of evidences:</i> During site visit the verification team observed the correct measurement of the diameter at 1.30m above ground applying all common rules for tree measurement. Those rules have been defined in advance in /SOP/. The data from the re-measurements have been cross-checked with first measurements and no significant differences have been detected.</p> <p><i>Conclusion:</i> The DBH has been measured as per good practice.</p> | OK | OK |
| <p>b) Accuracy (EB 55 Annex 1, §§ 205c, 206a)</p> <p><i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance</i></p> | /SPO/ /TRAIN/ /QAQC/ | <p><i>Description:</i> The measurement has followed best practices, the staff involved in measurements were trained and equipment (calliper and tape). The equipments have been found to be verified with other meter scales before use.</p> <p>Further re-measurements have been carried out. See QA/QC.</p> | OK | OK |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
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| <i>with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs.</i> | | <p><i>Justification of evidences: /QAQC/ /VISIT/</i></p> <p><i>Conclusion: The measurements have been carried out as per best forest practice thus accuracy can be verified to be high.</i></p> | | |
| <p>c) QA/QC Procedure (EB 55 Annex 1, §§ 184b (vii), 205c, 206) <i>Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.</i></p> | <p>/QAQC/ /TRAIN/ /XLS/ /PDD/</p> | <p><i>Description: Sample plot re-measurements have been carried out by an independent person (project management) after the field visit has been concluded on >10% of all Sample Plots (10 out of 85). Those re-measurements contained coordinate check, plot measurement, dbh and species determination.</i></p> <p><i>Justification of evidences: The results and original field data records of the QAQC check have been handed over to verification team. /XLS/. Field team has been sufficiently trained /TRAIN/</i></p> <p><i>Conclusion: The 10% re-measurements as defined in the monitoring plan have been carried out. No significant errors have been identified between original measurements and re-measurements. A total error of 0.3% has been identified, which is absolutely insignificant for forest measurement practice.</i> The verification concludes that the sample plot measurements have been carried out as per the best forest practice with an appropriate accuracy.</p> | OK | OK |
| d) Correctness | <p>/MR/ /VISIT/</p> | <p><input type="checkbox"/> Correct <input type="checkbox"/> Not correct</p> | CAR D4 | OK |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
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| <p>(EB 55 Annex 1, §§ 202, 206, 221e)</p> <p><i>Determine whether the value given in the monitoring report is correct or determined in a conservative manner.</i></p> <p><i>In case of conservative approaches used in lieu of the monitoring as per registered MP detailed assessment of the conservativeness of the approach used should be given.</i></p> <p><i>In case of mistakes / deviations pl. provide details and descriptions of the CARs raised.</i></p> | /EB/ | <p><i>Description:</i> As per the above descriptions the measurement of DBH has been carried out as per best forest practice. In the PDD it has been defined to measure all trees =>4cm of DBH. This was chosen in combination with an applicable BEF to calculate the biomass. In accordance with EB 63 Annex 27 point p the PP has the possibility to change the biomass determination method and parameters related to it. The PP decided to use an allometric equation instead of BEF method as the first one is available for the climatic region (dry forest). For the allometric equation it is appropriate to also include trees of less than 4cm DBH without reducing accuracy of the measurements.</p> <p><i>Justification of evidences:</i> /VISIT/ This could be observed during site visit by accompanying the field staff for repeated measurements.</p> <p><i>Conclusion:</i> The verification team confirms the correctness of the measurement of DBH. Further the verification team confirms the change of measured DBH from =>4cm to =>2cm to be covered by the changes listed in EB 63 Annex 27 point p and that this change will not decrease precision of the estimate.</p> <p>CAR D4 MR D.2: Calibration: Clarification is necessary whether real calibration is necessary for GPS, meter tape and calliper. Respective information/clarification has not been included in the parameter tables.</p> | | |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
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| | | | | |
| D.8. Hj | | Description: Height of species j | | |
| a) Measurement / Determination method (EB 55 Annex 1, §§ 184-185, 202-203) <i>Describe how the monitoring parameter was measured / determined.</i> <i>Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements.</i> <i>Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</i> | /EB/ /MR/ | <i>Description:</i> Not applicable as the PP changed from BEF method to allometric equation to determine tree biomass. For allometric equation no height values are used. <i>Justification of evidences:</i> <i>Conclusion:</i> As per EB 63 Annex 27 this change in allometric equation and resulting changes in parameter measurements are covered under point p). | OK | OK |
| b) Accuracy (EB 55 Annex 1, §§ 205c, 206a) <i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs.</i> | | <i>Description:</i> n/a <i>Justification of evidences:</i> <i>Conclusion:</i> | OK | OK |
| c) QA/QC Procedure | | <i>Description:</i> | OK | OK |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
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| (EB 55 Annex 1, §§ 184b (vii), 205c, 206) <i>Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.</i> | | <i>Justification of evidences:</i> <i>Conclusion:</i> | | |
| d) Correctness (EB 55 Annex 1, §§ 202, 206, 221e) <i>Determine whether the value given in the monitoring report is correct or determined in a conservative manner.</i> <i>In case of conservative approaches used in lieu of the monitoring as per registered MP detailed assessment of the conservativeness of the approach used should be given.</i> <i>In case of mistakes / deviations pl. provide details and descriptions of the CARs raised.</i> | /MR/ | <input checked="" type="checkbox"/> Correct <input type="checkbox"/> Not correct <i>Description:</i> <i>Justification of evidences:</i> <i>Conclusion:</i> Exclusion from calculation and monitoring is correct as per EB 63 Annex 27 point p). | OK | OK |
| D.9. J | | Description: Tree species (Latin name) | | |
| a) Measurement / Determination method (EB 55 Annex 1, §§ 184-185, 202-203) <i>Describe how the monitoring parameter was measured / determined.</i> <i>Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the</i> | /IM02/ /PDD/ /XLS/ /SPEC/ /IM03/ | <i>Description:</i> The tree species have been identified during tree measurement in each sample plot. The determination has been done by trained personnel with respective experience. Further local people have also been involved in the tree species determination as they commonly can distinguish nearly all of them. Some species that could not be easily or clearly identified have been sent to the University of Addis Ababa to be determined | OK | OK |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
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| <p><i>frequency of measurements as per the requirements.</i></p> <p><i>Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</i></p> | | <p>there and to identify the scientific Latin name. As a result a tree species list was established listing the local and scientific name.</p> <p><i>Justification of evidences: /VISIT//SPEC/</i> At site visit the probes of tree species send to University Herbarium have been showed.</p> <p><i>Conclusion:</i> Tree species have been determined as per best forest practice. Local people's knowledge, University knowledge and field staff knowledge have been combined to identify all trees growing in the project area.</p> | | |
| <p>b) Accuracy (EB 55 Annex 1, §§ 205c, 206a)</p> <p><i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs.</i></p> | <p>/IM02/ /PDD/ /XLS/ /SPEC/ /IM03/</p> | <p><i>Description:</i> The aim was to reach high accuracy in tree species determination given the Latin name.</p> <p><i>Justification of evidences: /SPEC//IM03/</i> Therefore different sources have been used and knowledge collected from locals, professionals and universities.</p> <p><i>Conclusion:</i> The verification team confirms high accuracy of the species determination. Especially for a dry tropical forest the amount of natural species is high and identification of all species it not easy. Nevertheless the project participant tried all possible to identify all trees.</p> | OK | OK |
| <p>c) QA/QC Procedure (EB 55 Annex 1, §§ 184b (vii), 205c, 206)</p> | <p>/IM02/ /PDD/ /XLS/</p> | <p><i>Description:</i> Sample plot re-measurements have been carried out by an independent person (project management) after the field visit has been concluded on >10% of all Sample Plots (10</p> | OK | OK |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
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| <i>Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.</i> | /SPEC/ /IM03/ | <p>out of 85). Those re-measurements contained coordinate check, plot measurement, dbh and species determination.</p> <p><i>Justification of evidences:</i> The results and original field data records of the QAQC check have been handed over to verification team. /XLS/. Field team has been sufficiently trained /TRAIN/</p> <p><i>Conclusion:</i> The 10% re-measurements as defined in the monitoring plan have been carried out. No significant errors have been identified between original measurements and re-measurements. No error has been identified in tree species determination.</p> <p>The verification concludes that the sample plot measurements have been carried out as per the best forest practice with an appropriate accuracy.</p> | | |
| <p>d) Correctness (EB 55 Annex 1, §§ 202, 206, 221e)</p> <p><i>Determine whether the value given in the monitoring report is correct or determined in a conservative manner.</i></p> <p><i>In case of conservative approaches used in lieu of the monitoring as per registered MP detailed assessment of the conservativeness of the approach used should be given.</i></p> <p><i>In case of mistakes / deviations pl. provide details</i></p> | /MR/ /XLS/ | <p><input checked="" type="checkbox"/> Correct <input type="checkbox"/> Not correct</p> <p><i>Description:</i> All tree species Latin names have been listed in the excel sheet together with the tree measurement data for each plot separately. The list is complete and each tree has been identified.</p> <p>Some of the trees are planted trees like Eucalyptus and Gravillea. For those plated species different allometric equations apply due to different growth performance than natural regeneration has. To determine in which tree biomass calculation which allometric equation applies the species determination has been carried out.</p> | OK | OK |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
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| <i>and descriptions of the CARs raised.</i> | | <i>Justification of evidences: /XLS//SPEC/</i> <i>Conclusion: Tree species have been correctly identified and listed in the excel sheet for ER calculations.</i> | | |
| D.10. lat/long | | Description: Plot location | | |
| a) Measurement / Determination method (EB 55 Annex 1, §§ 184-185, 202-203) <i>Describe how the monitoring parameter was measured / determined.</i> <i>Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements.</i> <i>Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</i> | /IM02/ /VISIT/ /GIS/ /GPS/ /XLS/ | <i>Description:</i> The plot location has been determined as described under B.1.2 Sampling. <i>Justification of evidences: /VISIT//GIS//GPS//XLS/</i> <i>Conclusion:</i> During site visit the field staff used GPS where all centre points of all selected sample plots have been saved. The field staff used the GPS to find their way through the forest to the centre points. | OK | OK |
| b) Accuracy (EB 55 Annex 1, §§ 205c, 206a) <i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies</i> | /VISIT/ /GPS/ /TRAIN/ | <i>Description:</i> within the accuracy of the GPS of <15m the field staff identified the centre points. Those center points have been temporary marked by a white coloured stone which will be replaced by a metal pole after verification to avoid visibility. <i>Justification of evidences: /VISIT/ /GPS/ /TRAIN/</i> | OK | OK |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
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| <i>occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs.</i> | | <i>Conclusion:</i> The accuracy of the GPS varies. A standard GPS device has been used for the lat/long determination in the field. The accuracy has been tried to reduce as much as possible while waiting for precision level decreases. This has been done while waiting some time at the estimated point while more satellites have been connected and thus precision level was increased to only few meters uncertainty. | | |
| c) QA/QC Procedure (EB 55 Annex 1, §§ 184b (vii), 205c, 206) <i>Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.</i> | /VISIT/ /GPS/ /TRAIN/ /QAQC/ | <i>Description:</i> Sample plot re-measurements have been carried out by an independent person (project management) after the field visit has been concluded on >10% of all Sample Plots (10 out of 85). Those re-measurements contained coordinate check, plot measurement, dbh and species determination. <i>Justification of evidences:</i> The results and original field data records of the QAQC check have been handed over to verification team. /XLS/. Field team has been sufficiently trained /TRAIN/ <i>Conclusion:</i> The 10% re-measurements as defined in the monitoring plan have been carried out. No significant errors have been identified between original measurements and re-measurements. No error has been identified in centre point determination within the expected precision level of GPSs. The verification concludes that the sample plot measurements have been carried out as per the best forest practice with an appropriate accuracy. | OK | OK |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
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| d) Correctness (EB 55 Annex 1, §§ 202, 206, 221e) <i>Determine whether the value given in the monitoring report is correct or determined in a conservative manner.</i> <i>In case of conservative approaches used in lieu of the monitoring as per registered MP detailed assessment of the conservativeness of the approach used should be given.</i> <i>In case of mistakes / deviations pl. provide details and descriptions of the CARs raised.</i> | /MR/ /VISIT/ /GPS/ /TRAIN/ /QAQC/ /XLS/ | <input type="checkbox"/> Correct <input type="checkbox"/> Not correct <i>Description:</i> As per the above explanation the measurement of coordinates in the field and in the pre-determination in the office have been carried out as per best forest practice and within accuracy to be expected from GPS standard device. <i>Justification of evidences:</i> /MR/ /VISIT/ /GPS/ /TRAIN/ /QAQC/ /XLS/ <i>Conclusion:</i> The verification team confirms the correctness of the identification of sample plot centre points in the field. CAR D4 MR D.2: Calibration: Clarification is necessary whether real calibration is necessary for GPS, meter tape and calliper. Respective information/clarification has not been included in the parameter tables. | CAR D4 | OK |
| D.11. nTR_{PLikt} | | Description: Number of trees in the sample plot | | |
| a) Measurement / Determination method (EB 55 Annex 1, §§ 184-185, 202-203) <i>Describe how the monitoring parameter was measured / determined.</i> <i>Check if relevant equipment has been exchanged</i> | /IM02/ /PDD/ /MR/ /VISIT/ | <i>Description:</i> The number of trees is counted during the sample plot measurements. Each tree above 2 cm DBH is taken into account. <i>Justification of evidences:</i> The verification team could check the measurement and counting during the site visit (re- | OK | OK |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
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| <p><i>and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements.</i></p> <p><i>Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</i></p> | | <p>measurements).</p> <p><i>Conclusion:</i> The counting of trees has been done for each sample plot. Every time a tree is counted it is marked with chalk to avoid double counting.</p> | | |
| <p>b) Accuracy (EB 55 Annex 1, §§ 205c, 206a)</p> <p><i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs.</i></p> | /IM02/ /PDD/ /MR/ /VISIT/ | <p><i>Description:</i> Each tree is counted once therefore all counted trees are marked with chalk.</p> <p><i>Justification of evidences:</i> The verification team could check the measurement and counting during the site visit (re-measurements).</p> <p><i>Conclusion:</i> The counting is accurate.</p> | OK | OK |
| <p>c) QA/QC Procedure (EB 55 Annex 1, §§ 184b (vii), 205c, 206)</p> <p><i>Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.</i></p> | /IM02/ /PDD/ /MR/ /VISIT/ | <p><i>Description:</i> Sample plot re-measurements have been carried out by an independent person (project management) after the field visit has been concluded on >10% of all Sample Plots (10 out of 85). Those re-measurements contained coordinate check, plot measurement, dbh and species determination (including tree counting).</p> <p><i>Justification of evidences:</i> The results and original field data records of the QAQC check have been handed over to verification team. /XLS/. Field team has been sufficiently trained /TRAIN/</p> | OK | OK |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
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| | | <p><i>Conclusion:</i> The 10% re-measurements as defined in the monitoring plan have been carried out. No significant errors have been identified between original measurements and re-measurements.</p> <p>The verification concludes that the sample plot measurements have been carried out as per the best forest practice with an appropriate accuracy.</p> | | |
| <p>d) Correctness (EB 55 Annex 1, §§ 202, 206, 221e)</p> <p><i>Determine whether the value given in the monitoring report is correct or determined in a conservative manner.</i></p> <p><i>In case of conservative approaches used in lieu of the monitoring as per registered MP detailed assessment of the conservativeness of the approach used should be given.</i></p> <p><i>In case of mistakes / deviations pl. provide details and descriptions of the CARs raised.</i></p> | /MR/ | <p><input checked="" type="checkbox"/> Correct <input type="checkbox"/> Not correct</p> <p><i>Description:</i> Counting has been performed correctly as could be evidenced during site visit and looking at QAQC documentation.</p> <p><i>Justification of evidences:</i> /IM02/ /PDD/ /MR//VSIST/</p> <p><i>Conclusion:</i> The parameter no. of trees per plot is overall correct.</p> | OK | OK |
| D.12. Na_{EGL t} | | Description: Number of animals present in the sampled EGL areas at time t | | |
| <p>a) Measurement / Determination method (EB 55 Annex 1, §§ 184-185, 202-203)</p> <p><i>Describe how the monitoring parameter was measured / determined.</i></p> | /IM03/ /PDD/ /LEAK/ | <p><i>Description:</i> The PP sent a request to the local government asking for inventory results from animal counting in the project area households. The government performed a census and provided the PP with the results.</p> | OK | OK |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. | | | | | | | | | | | | |
|--|---|--|-----------------|---|--------------|--------------|------------------------|--------------|--------------|---------------|--------------------------|---------------|--------------|---------------|--|--|
| <p><i>Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements.</i></p> <p><i>Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</i></p> | | <p>Compared to the pre-project situation the total number of animals increased in the project communities.</p> <table><tr><td></td><td><i>Ox/cow/bull/ (heifer/donkey)</i></td><td><i>goats</i></td><td><i>total</i></td></tr><tr><td><i>Na_{BL}</i></td><td><i>8,684</i></td><td><i>2,288</i></td><td><i>10,972</i></td></tr><tr><td><i>Na_{EGLt}</i></td><td><i>11,383</i></td><td><i>4,108</i></td><td><i>15,491</i></td></tr></table> <p>It is to mention, that the total amount of ox/cow/bulls decreased but instead other animals like donkey and heifer increased, consuming similar amount of fodder. The amount of goats significantly increased. Leakage from animal grazing is assumed to be zero as the following equation given in the methodology and PDD is confirmed: $LK=0$ if $Na_{BL}<Na_{ARt}$, where $Na_{ARt}=Na_{EGLt}$, where $10,972<15,491$.</p> <p><i>Justification of evidences: /LEAK/</i> The letter with results has been presented to the audit team.</p> <p>Further interviews have been performed with the communities concluding that the total number area.</p> <p><i>Conclusion:</i> The letter from the local government is a reliable document, showing the no. of animals counted in the project communities.</p> | | <i>Ox/cow/bull/ (heifer/donkey)</i> | <i>goats</i> | <i>total</i> | <i>Na_{BL}</i> | <i>8,684</i> | <i>2,288</i> | <i>10,972</i> | <i>Na_{EGLt}</i> | <i>11,383</i> | <i>4,108</i> | <i>15,491</i> | | |
| | <i>Ox/cow/bull/ (heifer/donkey)</i> | <i>goats</i> | <i>total</i> | | | | | | | | | | | | | |
| <i>Na_{BL}</i> | <i>8,684</i> | <i>2,288</i> | <i>10,972</i> | | | | | | | | | | | | | |
| <i>Na_{EGLt}</i> | <i>11,383</i> | <i>4,108</i> | <i>15,491</i> | | | | | | | | | | | | | |
| b) Accuracy | /IM03/ /PDD/ | <i>Description:</i> see a) | OK | OK | | | | | | | | | | | | |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
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| (EB 55 Annex 1, §§ 205c, 206a) <i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs.</i> | /LEAK/ | <i>Justification of evidences: /LEAK/ /IM02/ /IM03/</i> <i>Conclusion: The counting by government can be assumed most accurate method to determine this parameter.</i> | | |
| c) QA/QC Procedure (EB 55 Annex 1, §§ 184b (vii), 205c, 206) <i>Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.</i> | | <i>Description: n/a</i> <i>Justification of evidences:</i> <i>Conclusion:</i> | OK | OK |
| d) Correctness (EB 55 Annex 1, §§ 202, 206, 221e) <i>Determine whether the value given in the monitoring report is correct or determined in a conservative manner.</i> <i>In case of conservative approaches used in lieu of the monitoring as per registered MP detailed assessment of the conservativeness of the approach used should be given.</i> <i>In case of mistakes / deviations pl. provide details and descriptions of the CARs raised.</i> | /MR/ | <input checked="" type="checkbox"/> Correct <input type="checkbox"/> Not correct <i>Description: The descriptions of the parameter and the values have been correctly included in the MR. No discrepancies with the original letter have been identified.</i> <i>Justification of evidences: /LEAK/ /MR/ /PDD/</i> <i>Conclusion: The parameter description is overall correct.</i> | OK | OK |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. | | | | | | | | |
|---|---------------------------|--|-----------------|-----------------|------|------|-----------|-----------|-----------|-----------|-------|----|
| D.13. Volume of fuel wood utilized from thinning and pruning | | Description: Annually utilized (or harvested) volume of fuel wood t for stratum i | | | | | | | | | | |
| a) Measurement / Determination method (EB 55 Annex 1, §§ 184-185, 202-203) <i>Describe how the monitoring parameter was measured / determined.</i> <i>Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements.</i> <i>Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</i> | /IM03/ /PDD/ /LEAK/ | <p><i>Description:</i> This parameter has been monitored even though it was not required from the monitoring plan (PDD page 76). To show that leakage indeed not occurred the following has been done: Out of seven communities that are part of this project, four have been randomly selected. Within these four communities 5 sample plots of 100m² have been established to measure the amount of fuel wood collected in m³/ha after coppicing activities, pruning activities and fire break construction. No harvesting has been performed in this MP thus only fuel collection is counted.</p> <p>Following annual values have been monitored over all communities:</p> <table><tr><td>2008</td><td>2009</td><td>2010</td><td>2011</td></tr><tr><td>5.1 m³/ha</td><td>5.3 m³/ha</td><td>5.5 m³/ha</td><td>6.1 m³/ha</td></tr></table> <p><i>Justification of evidences:</i> /LEAK/ Data records for each community have been provided for the years 2008 to 2011 when first activities started.</p> <p><i>Conclusion:</i> In the PDD a pre-project annual volume of fuel wood was set with 4.3t/ha.</p> <p>CL D7</p> | 2008 | 2009 | 2010 | 2011 | 5.1 m³/ha | 5.3 m³/ha | 5.5 m³/ha | 6.1 m³/ha | CL-D7 | OK |
| 2008 | 2009 | 2010 | 2011 | | | | | | | | | |
| 5.1 m³/ha | 5.3 m³/ha | 5.5 m³/ha | 6.1 m³/ha | | | | | | | | | |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
|--|---------------------------|--|------------------|-----------------|
| | | MR D.2/E.3: Parameter: Hijt and leakage: It shall be clarified how comparability is given for the results of fuel wood leakage calculation as the registered PDD gives a value of 4.3 in <u>tonnes/ha</u> of annual fuel wood collection at pre-project situation, while the MR counts with 5.1-6.1 <u>m³/ha</u> ex-post. | | |
| b) Accuracy (EB 55 Annex 1, §§ 205c, 206a) <i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs.</i> | /IM03/ /PDD/ /LEAK/ | <i>Description:</i> see CL D7 <i>Justification of evidences:</i> /LEAK/ /IM02/ /IM03/ <i>Conclusion:</i> | CL D7 | OK |
| c) QA/QC Procedure (EB 55 Annex 1, §§ 184b (vii), 205c, 206) <i>Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.</i> | | <i>Description:</i> CL D7 <i>Justification of evidences:</i> <i>Conclusion:</i> | CL D7 | OK |
| d) Correctness (EB 55 Annex 1, §§ 202, 206, 221e) <i>Determine whether the value given in the monitoring report is correct or determined in a conservative manner.</i> | /MR/ | <input type="checkbox"/> Correct <input checked="" type="checkbox"/> Not correct <i>Description:</i> CL D7 <i>Justification of evidences:</i> /LEAK/ /MR/ /PDD/ | CL D7 | OK |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. | | | | | | | | | | |
|---|--|--|-----------------|-----------------|-----|-----|-----|---|----|----|---|---|--------------|----|
| <p><i>In case of conservative approaches used in lieu of the monitoring as per registered MP detailed assessment of the conservativeness of the approach used should be given.</i></p> <p><i>In case of mistakes / deviations pl. provide details and descriptions of the CARs raised.</i></p> | | Conclusion: | | | | | | | | | | | | |
| D.14. PL_{ik} | | Description: Total number of plots in stratum I, stand model k | | | | | | | | | | | | |
| <p>a) Measurement / Determination method (EB 55 Annex 1, §§ 184-185, 202-203)</p> <p><i>Describe how the monitoring parameter was measured / determined.</i></p> <p><i>Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements.</i></p> <p><i>Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</i></p> | /XLS/ /SOP/ /MR/ /PDD/ /AR-AM0003/ /GIS/ /VISIT/ | <p><i>Description:</i> The total number of plots in each stratum has been calculated using the “Sourcebook for Land Use, Land Use Change, and Forestry Projects (Timothy Pearson, Sarah Walker, and Sandra Brown, Winrock 2005)”. The equation used is similar to the one used in the methodology or tool.</p> <p>In total 85 sample plots have been estimated for the whole project area and the following amount has been calculated per each stratum:</p> <table border="1"> <thead> <tr> <th>ST1</th><th>ST2</th><th>ST3</th><th>ST4</th><th>ST5</th></tr> </thead> <tbody> <tr> <td>8</td><td>14</td><td>57</td><td>4</td><td>2</td></tr> </tbody> </table> <p>The same amount of plots has been found in the field as could be seen during site visit (sample check) and GIS software where all 85 plots have been mapped.</p> <p><i>Justification of evidences:</i> /XLS/ /SOP/ /MR/ /PDD/ /AR-AM0003/ /GIS/ have been reviewed and found to be consistent.</p> | ST1 | ST2 | ST3 | ST4 | ST5 | 8 | 14 | 57 | 4 | 2 | CL-D5 | OK |
| ST1 | ST2 | ST3 | ST4 | ST5 | | | | | | | | | | |
| 8 | 14 | 57 | 4 | 2 | | | | | | | | | | |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
|---|---------------|--|------------------|-----------------|
| | | <p><i>Conclusion:</i> CAR D5</p> <p>It shall be clarified why the calculation of sample size has been done as per the “Sourcebook for Land Use, Land Use Change, and Forestry Projects (Timothy Pearson, Sarah Walker, and Sandra Brown, Winrock 2005)” instead of using either the applicable methodology approach or the Tool “Calculation of the number of sample plots for measurements within A/R CDM Project Activities” and why this is deemed to be appropriate.</p> | | |
| <p>b) Accuracy (EB 55 Annex 1, §§ 205c, 206a)</p> <p><i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs.</i></p> | /CAL/ /MM/ | <p><i>Description:</i> See CL D5</p> <p><i>Justification of evidences:</i></p> <p><i>Conclusion:</i></p> | CL D5 | OK |
| <p>c) QA/QC Procedure (EB 55 Annex 1, §§ 184b (vii), 205c, 206)</p> <p><i>Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.</i></p> | /QAQC/ | <p><i>Description:</i> The number of sample plots laid out in the field has been crosschecked by the project manager during re-measurement of the plots.</p> <p><i>Justification of evidences:</i> /QAQC/</p> <p><i>Conclusion:</i> The accurate amount of plots measured in the field has been cross checked and found to be correct.</p> | OK | OK |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
|---|-------------------------------------|--|-----------------|-----------------|
| d) Correctness (EB 55 Annex 1, §§ 202, 206, 221e) <i>Determine whether the value given in the monitoring report is correct or determined in a conservative manner.</i> <i>In case of conservative approaches used in lieu of the monitoring as per registered MP detailed assessment of the conservativeness of the approach used should be given.</i> <i>In case of mistakes / deviations pl. provide details and descriptions of the CARs raised.</i> | /MR/ | <input type="checkbox"/> Correct <input type="checkbox"/> Not correct <i>Description: See CAR D5</i> <i>Justification of evidences:</i> <i>Conclusion:</i> | CL D5 | OK |
| D.15. PL ID | | Description: Sample plot ID | | |
| a) Measurement / Determination method (EB 55 Annex 1, §§ 184-185, 202-203) <i>Describe how the monitoring parameter was measured / determined.</i> <i>Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements.</i> <i>Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</i> | /MR/ /VISIT/ /QAQC/ /PLOT/ | <i>Description: The sample plot ID has been given by first giving the name of the stratum and then counting numeric until each plot in each stratum has given a unique number counting from 1. Sample plot number 1 in stratum 3 has the ID: ST3P1. This counting has been used consequently throughout all project documentation.</i> <i>Justification of evidences: /MR/ /VISIT/ /QAQC/ /PLOT/</i> <i>Conclusion: All documents showing consistent counting method for sample IDs. The method chosen is clear and does not allow for double counting of plots.</i> | OK | OK |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
|--|-------------------------------------|---|-----------------|-----------------|
| b) Accuracy (EB 55 Annex 1, §§ 205c, 206a) <i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs.</i> | /MR/ /VISIT/ /QAQC/ /PLOT/ | <i>Description:</i> The sample plot ID is <i>Justification of evidences:</i> /MR/ /VSIST/ /QAQC/ /PLOT/ <i>Conclusion:</i> The sample plot ID is accurate all over documentation. | OK | OK |
| c) QA/QC Procedure (EB 55 Annex 1, §§ 184b (vii), 205c, 206) <i>Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.</i> | /QAQC/ | <i>Description:</i> During sample plot re-measurement the same sample plot ID have been taken and have been confided as for the original recoding. <i>Justification of evidences:</i> /QAQC/ <i>Conclusion:</i> The sample plot ID is accurate all over documentation. | OK | OK |
| d) Correctness (EB 55 Annex 1, §§ 202, 206, 221e) <i>Determine whether the value given in the monitoring report is correct or determined in a conservative manner.</i> <i>In case of conservative approaches used in lieu of the monitoring as per registered MP detailed assessment of the conservativeness of the approach used should</i> | /MR/ | <input checked="" type="checkbox"/> Correct <input type="checkbox"/> Not correct <i>Description:</i> The sample plot ID is accurate all over documentation. <i>Justification of evidences:</i> /MR/ /VSIST/ /QAQC/ /PLOT/ <i>Conclusion:</i> The sample plot ID is accurate all over | OK | OK |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
|---|--------------------------|---|-----------------|-----------------|
| <p><i>be given.</i></p> <p><i>In case of mistakes / deviations pl. provide details and descriptions of the CARs raised.</i></p> | | documentation. No double counting of plots occurred and no other doubt about sample plot ID came up. | | |
| D.16. Project boundary | | Description: GPS points to be re-measured to ensure accuracy of the project boundary (implementation) | | |
| <p>a) Measurement / Determination method (EB 55 Annex 1, §§ 184-185, 202-203)</p> <p><i>Describe how the monitoring parameter was measured / determined.</i></p> <p><i>Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements.</i></p> <p><i>Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</i></p> | /GIS/ /IMPL/ /MAP/ | <p><i>Description:</i> 10% of all boundary coordinates have been selected in the head office using GIS program. Those points have been crosschecked in the field. Here the original recorded coordinate has been transferred to the GPS and the location has been searched in the field. There it was noted whether the border could be identified at that point taking the precision of the GPS device into account (<15m). All border points could be confirmed to be correct and the project boundary remained the same.</p> <p><i>Justification of evidences:</i> /QAQC/ records have been checked.</p> <p><i>Conclusion:</i> The project boundary is confirmed as per the registered PDD:</p> | OK | OK |
| <p>b) Accuracy (EB 55 Annex 1, §§ 205c, 206a)</p> <p><i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most</i></p> | /QAQC/ | <p><i>Description:</i> This re-measurement was introduced to check accuracy of the registered project boundary coordinates. As both data match the accuracy of the project boundary is confirmed.</p> | OK | OK |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
|---|-----------|--|-----------------|-----------------|
| <i>conservative assumptions theoretically possible have been made for calculating ERs.</i> | | | | |
| c) QA/QC Procedure (EB 55 Annex 1, §§ 184b (vii), 205c, 206) <i>Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.</i> | /QA/QC/ | <i>Description:</i> this parameter is a QAQC procedure thus no other QAQC on this is necessary. <i>Justification of evidences:</i> <i>Conclusion:</i> | OK | OK |
| d) Correctness (EB 55 Annex 1, §§ 202, 206, 221e) <i>Determine whether the value given in the monitoring report is correct or determined in a conservative manner.</i> <i>In case of conservative approaches used in lieu of the monitoring as per registered MP detailed assessment of the conservativeness of the approach used should be given.</i> <i>In case of mistakes / deviations pl. provide details and descriptions of the CARs raised.</i> | /MR/ | <input type="checkbox"/> Correct <input type="checkbox"/> Not correct <i>Description:</i> The description the MR is not complete. See CAR C1 <i>Justification of evidences:</i> <i>Conclusion:</i> CAR C1: MR C: Monitoring of the project boundary: In the monitoring methodology it could not be found the given reference that a random sample of 10% of boundary points shall be monitored. Check reference. Further this section does not describe in detail the outcome of the boundary re-measurements nor has it been included in the parameter section D.2. or in the excel sheet. Here only coordinates are given without analysis of the data. | CAR C1 | OK |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. | | | | | | | | |
|--|----------------|---|--------------|--------------|------|------|-----|-----|-----|-----|----|----|
| D.17. Seedling survival | | Description: % of seedlings relative to target stocking density (Implementation) | | | | | | | | | | |
| a) Measurement / Determination method (EB 55 Annex 1, §§ 184-185, 202-203) Describe how the monitoring parameter was measured / determined. Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements. Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology. | /SR/ /ANRE/ | Description: Within the first years after planting in stratum 5 a seedling survival monitoring has been done. The first check has been performed after 3 month and then annually. Replanting was required as per the methodology of less than 90% survived. Justification of evidences: During site visit the results of the survival checks have been handed to the verification team. A report prepared by the field staff is handed over to the head office. Those results are also shown in the annual project report. /SR/ /ANRE/ Conclusion: It could be evidenced that survival rate checking and following re-planting activities have been carried out. | OK | OK | | | | | | | | |
| b) Accuracy (EB 55 Annex 1, §§ 205c, 206a) In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs. | | Description: Survival rates for the years where: <table border="1"><tr><td>2007</td><td>2008</td><td>2009</td><td>2010</td></tr><tr><td>79%</td><td>79%</td><td>67%</td><td>85%</td></tr></table> The results are form direct field measurements while counting the life trees in each plantation. Justification of evidences: /SR/ /ANRE/ | 2007 | 2008 | 2009 | 2010 | 79% | 79% | 67% | 85% | OK | OK |
| 2007 | 2008 | 2009 | 2010 | | | | | | | | | |
| 79% | 79% | 67% | 85% | | | | | | | | | |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
|---|--------------------------|--|-----------------|-----------------|
| | | <i>Conclusion:</i> The parameter values can be assessed as accurate. | | |
| c) QA/QC Procedure (EB 55 Annex 1, §§ 184b (vii), 205c, 206) <i>Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.</i> | | <i>Description:</i> n/a <i>Justification of evidences:</i> <i>Conclusion:</i> | OK | OK |
| d) Correctness (EB 55 Annex 1, §§ 202, 206, 221e) <i>Determine whether the value given in the monitoring report is correct or determined in a conservative manner.</i> <i>In case of conservative approaches used in lieu of the monitoring as per registered MP detailed assessment of the conservativeness of the approach used should be given.</i> <i>In case of mistakes / deviations pl. provide details and descriptions of the CARs raised.</i> | /MR/ | <input checked="" type="checkbox"/> Correct <input type="checkbox"/> Not correct <i>Description:</i> The survival rate has been monitored in an adequate way while counting all dead and life trees in the plantation. The results have been presented to the project management. The conclusion was the replanting of dead trees in case the rate was below 90%. <i>Justification of evidences:</i> Replanting records as well as survival rate reports have been checked. <i>Conclusion:</i> The parameter is consistent and overall correct. Monitoring has been done as per best forest practice. | OK | OK |
| D.18. Site Preparation/pitting | | Description: Sites that were disturbed during pit preparation (Implementation) | | |
| a) Measurement / Determination method (EB 55 Annex 1, §§ 184-185, 202-203) <i>Describe how the monitoring parameter was</i> | /ANRE/ /PDD/ /XLS/ | <i>Description:</i> During the site preparation the only disturbance to the soil was the pitting of holes for the planted trees. In total 725,357 holes have been pitted during plantation establishment. Each hole has a size of 0.2m x 0.3m. Calculating the whole | OK | OK |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
|---|------------------|---|-----------------|-----------------|
| <p><i>measured / determined.</i></p> <p><i>Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements.</i></p> <p><i>Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</i></p> | | <p>disturbance in the project site brings the following result:</p> <p>$0.2\text{m} \times 0.3\text{m} = 0.06\text{m}^2$</p> <p>$0.06\text{m}^2 \times 725,357 \text{ holes} = 43,521\text{m}^2/10,000\text{m}^2 = 4.35 \text{ ha}$</p> <p>4.35 ha represent 0.16% of the total project area of 2,728 ha.</p> <p><i>Justification of evidences:</i> planting records from 2007-2011 /ANRE/</p> <p><i>Conclusion:</i> The overall soil disturbance is negligible as 4.35 ha represent only 0.16% of the total project area of 2,728 ha. Consequently it can be concluded that soil disturbance was very limited in this project.</p> | | |
| <p>b) Accuracy (EB 55 Annex 1, §§ 205c, 206a)</p> <p><i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs.</i></p> | /ANRE/ /NURS/ | <p><i>Description:</i> The data for the total amount of holes has been taken from the annual management report /ANRE/. This report summarized data delivered by the project staff. Original data records from nurseries and tree planting have been observed during site visit.</p> <p><i>Justification of evidences:</i> /NURS/ /ANRE/</p> <p><i>Conclusion:</i> This parameter can be confirmed as correct. It is not part of the ER calculation.</p> | OK | OK |
| <p>c) QA/QC Procedure</p> | | <p><i>Description:</i> not applicable</p> | OK | OK |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
|---|-----------------|--|-----------------|-----------------|
| (EB 55 Annex 1, §§ 184b (vii), 205c, 206) <i>Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.</i> | | <i>Justification of evidences:</i> <i>Conclusion:</i> | | |
| d) Correctness (EB 55 Annex 1, §§ 202, 206, 221e) <i>Determine whether the value given in the monitoring report is correct or determined in a conservative manner.</i> <i>In case of conservative approaches used in lieu of the monitoring as per registered MP detailed assessment of the conservativeness of the approach used should be given.</i> <i>In case of mistakes / deviations pl. provide details and descriptions of the CARs raised.</i> | /MR/ | <input checked="" type="checkbox"/> Correct <input type="checkbox"/> Not correct <i>Description: see a)</i> <i>Justification of evidences: MR, PDD</i> <i>Conclusion: The verification concludes that soil pitting was reduced to a minimum only in planted areas and that soil disturbance has no negative impact on the soil carbon. The site preparation took place as described in the PDD.</i> | OK | OK |
| D.19. TID | | Description: Age of plantation (Implementation) | | |
| a) Measurement / Determination method (EB 55 Annex 1, §§ 184-185, 202-203) <i>Describe how the monitoring parameter was measured / determined.</i> <i>Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the</i> | /IMPL/ /XLS/ | <i>Description: For each planting year the respective area planted has been recorded. With this information (year of planting) the age of plantation can easily be counted. The first planting have been done in 2007 and the latest and final took place in 2011.</i> <i>For this monitoring event (2011) the following ages are noted for plantations in stratum 5:</i> | OK | OK |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. | | | | | | | | | | | | | | | |
|--|-----------|---|-----------------|-----------------|------|------|------|----------------------|---------|---------|--------|--------|----------------|---------|---------|--------|--------|--|--|
| <p><i>frequency of measurements as per the requirements.</i></p> <p><i>Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</i></p> | | <table border="1"> <tr> <td>Year 2007</td><td>2008</td><td>2009</td><td>2010</td><td>2011</td></tr> <tr> <td>No. Trees 118,808</td><td>345,158</td><td>168,676</td><td>75,350</td><td>17,365</td></tr> <tr> <td>4 years old</td><td>3 years</td><td>2 years</td><td>1 year</td><td><1year</td></tr> </table> <p><i>Justification of evidences:</i> Annual project report has been provided to the audit team from each management year /ANRE/. Here the exact project activities have been reported. Further field records have been checked that are stored at community or field office level.</p> <p><i>Conclusion:</i> The age of plantation is recorded as the year of planting. The data have been checked and can be considered as correct.</p> | Year 2007 | 2008 | 2009 | 2010 | 2011 | No. Trees 118,808 | 345,158 | 168,676 | 75,350 | 17,365 | 4 years old | 3 years | 2 years | 1 year | <1year | | |
| Year 2007 | 2008 | 2009 | 2010 | 2011 | | | | | | | | | | | | | | | |
| No. Trees 118,808 | 345,158 | 168,676 | 75,350 | 17,365 | | | | | | | | | | | | | | | |
| 4 years old | 3 years | 2 years | 1 year | <1year | | | | | | | | | | | | | | | |
| <p>b) Accuracy (EB 55 Annex 1, §§ 205c, 206a)</p> <p><i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs.</i></p> | /ANRE/ | <p><i>Description:</i> The data have been recorded by trained personnel-</p> <p><i>Justification of evidences:</i> /ANRE/</p> <p><i>Conclusion:</i> The data are accurate comparing field records with annual report.</p> | OK | OK | | | | | | | | | | | | | | | |
| <p>c) QA/QC Procedure</p> | | <p><i>Description:</i> not applicable</p> | OK | OK | | | | | | | | | | | | | | | |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
|---|---------------------------------------|---|-----------------|-----------------|
| (EB 55 Annex 1, §§ 184b (vii), 205c, 206) <i>Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.</i> | | <i>Justification of evidences:</i> <i>Conclusion:</i> | | |
| d) Correctness (EB 55 Annex 1, §§ 202, 206, 221e) <i>Determine whether the value given in the monitoring report is correct or determined in a conservative manner.</i> <i>In case of conservative approaches used in lieu of the monitoring as per registered MP detailed assessment of the conservativeness of the approach used should be given.</i> <i>In case of mistakes / deviations pl. provide details and descriptions of the CARs raised.</i> | /MR/ | <input checked="" type="checkbox"/> Correct <input type="checkbox"/> Not correct <i>Description:</i> The parameter age of plantation has been monitored and recorded as per the registered PDD. <i>Justification of evidences:</i> /ANRE/ /NURS/ <i>Conclusion:</i> This parameter may play a role during next periodic verification. For now the plantation trees have been measured with trees below 2 cm. Thus they are not considered for ER calculation at this monitoring event. Therefore the parameter age of plantation is not forming a stratification parameter for now, but probably in the future if variance between the plantations is high. The parameter is overall correct. | OK | OK |
| D.20. Weeding efficacy | | Description: Efficacy of weeding % (Implementation) | | |
| a) Measurement / Determination method (EB 55 Annex 1, §§ 184-185, 202-203) <i>Describe how the monitoring parameter was measured / determined.</i> | /IM02/ /IM03/ /TRAIN/ /ANRE/ | <i>Description:</i> Weeding has been carried out on 100% of the plantation area each three month in the first year and afterward annually. This value is used for the management only to determine whether additional weeding is necessary. | OK | OK |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
|--|----------------|--|-----------------|-----------------|
| <p><i>Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements.</i></p> <p><i>Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</i></p> | | <p><i>Justification of evidences:</i> Forest staff /IM02/ has been interviewed as well as community member's /IM03/. Annual report is provided /ANRE/.</p> <p><i>Conclusion:</i> Weeding has been carried out on all plantation sites. The weeded grass is used as fodder for animals living in the communities. The need for fodder and the need for good tree management confirm that weeding has been carried out. The high survival rates confirm the effect of weeding.</p> | | |
| <p>b) Accuracy (EB 55 Annex 1, §§ 205c, 206a)</p> <p><i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs.</i></p> | | <p><i>Description:</i> not applicable – only for forest management</p> <p><i>Justification of evidences:</i></p> <p><i>Conclusion:</i></p> | OK | OK |
| <p>c) QA/QC Procedure (EB 55 Annex 1, §§ 184b (vii), 205c, 206)</p> <p><i>Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.</i></p> | | <p><i>Description:</i> not applicable – only for forest management</p> <p><i>Justification of evidences:</i></p> <p><i>Conclusion:</i></p> | OK | OK |
| <p>d) Correctness</p> | /MR/ /IM02/ | <input checked="" type="checkbox"/> Correct <input type="checkbox"/> Not correct | OK | OK |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
|---|-----------------------------|--|-----------------|-----------------|
| <p>(EB 55 Annex 1, §§ 202, 206, 221e)</p> <p><i>Determine whether the value given in the monitoring report is correct or determined in a conservative manner.</i></p> <p><i>In case of conservative approaches used in lieu of the monitoring as per registered MP detailed assessment of the conservativeness of the approach used should be given.</i></p> <p><i>In case of mistakes / deviations pl. provide details and descriptions of the CARs raised.</i></p> | /IM03/ /TRAIN/ /ANRE/ | <p><i>Description:</i> Weeding has been carried out.</p> <p><i>Justification of evidences:</i> This has been evidenced by interviews and training records.</p> <p><i>Conclusion:</i> The value is correct. It is not used in the ER calculation. Weeding has been done as per the registered PDD.</p> | | |
| E. Emission removals calculation | | | | |
| <p>E.1. Traceability (EB 55 Annex 1, § 182)</p> <p><i>Assess if the calculation is fully traceable. In case of complex calculations an Excel calculation spreadsheet shall be used. All applied formulae must be visible.</i></p> | /XLS/ | <p><i>Description:</i> The emission removal calculation itself is traceable from the single tree measurement at plot size to the final result of removed CO₂.</p> <p>Sample size re-determination has been presented but is not fully traceable yet.</p> <p>Quality control calculations are fully traceable from single tree re-measurement to the error identified.</p> <p><i>Justification of evidences:</i> The respective spreadsheets^{/XLS/} have been reviewed.</p> <p><i>Conclusion:</i> All excel calculations are transparent apart from the sample size determination. All calculations are unprotected.</p> <p>CAR E2: Excel sheet "Sample size determination": The calculation is not transparent in all cells (no formula included).</p> | CAR E2 | OK |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
|--|----------------------------------|---|--|-----------------|
| | | Other cells do not have a description of the value or unit. | | |
| E.2. Parameter consistency (EB 55 Annex 1, § 186; EB 54 Annex 34 Pt.1) <i>Assess whether all internal and external parameters and data used for calculation are applied consistently in the monitoring report and the calculation spreadsheet?</i> <i>Consider only the correct data exchange between the monitoring report and the calculation spreadsheet (if any). Further ensure the consistency of notations for all parameters in the PDD, MR, calculation spreadsheet.</i> | /XLS/ /MR/ /PDD/ /IPCC/ | <p><i>Description:</i> The data transferred from original field records to the excel calculations are consistent. Parameters applied are also consistent in overall project documentation. Just in one case a mistake happened due to transcription error. A CAR was raised.</p> <p>The allometric equation applied and shown in section D.1 of the MR is not applicable for all plantation trees. A CAR was raised.</p> <p>Default values determined in the PDD are correct but not complete in the MR. See section 5 of this report for complete list of default values.</p> <p><i>Justification of evidences:</i> By checking PDD, Meth, MR and excel sheets</p> <p><i>Conclusion:</i></p> <p>The overall data and parameters are correct and consistent.</p> <p>CAR D1: MR D.1: Allometric equation: Fi (DBH, H) Only one allometric equation has been described in this section. For the calculation of biomass for eucalyptus and gravillea the equation for natural regeneration of dry forests is not appropriate. The allometric equations have not been analysed by using the tool: "Demonstrating appropriateness of allometric equations for estimation of aboveground tree biomass in A/R CDM project activities" EB65 Annex 28.</p> | CAR D1 CAR E1 CAR D3 CAR D6 | OK |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
|--|-----------|---|-----------------|-----------------|
| | | <p>CAR E1: During comparison between field records and excel sheet of the sample plot data during the site visit one transcription error has been identified. A plot (Stratum 2 Plot 8), where originally two trees are found, has been transferred to the excel calculation sheet with no tree counted. Correction or clarification is requested.</p> <p>CAR D3: Parameter Ri (root shoot ratio) and Dj (wood density): Only the value for natural regeneration has been included in this table. The respective value for eucalyptus and gravillea is missing (and probably other planted tree species). Further these are default values and belong to section D.1.</p> <p>CAR D6: MR D.1: Parameter NaBL: The value given does not correspond with the value given in the PDD which is 3,990 instead of 3,512. Please clarify.</p> | | |
| <p>E.3. Parameter presentation (EB 54 Annex 34 Pt.1)</p> <p><i>Check if all values included in the MR are presented as per international standards</i></p> <ul style="list-style-type: none"> - <i>Format: Standard format (e.g. 1,000 representing one thousand and 1.0 representing one).</i> - <i>Units: Values shall be directly given in SI units – or additionally to original units transferred to SI.</i> - <i>Short scale naming system: (Only) million = 10^6 and billion 10^9 shall be used.</i> | | All parameters are using standard format and units are in accordance with SI units or best forest practice. | OK | OK |
| E.4. Correctness of calculation | /XLS/ | Description: Some errors have been identified as reflected in | CAR | OK |


| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
|--|---------------|--|---|-----------------|
| <p>(EB 55 Annex 1, §§ 204-206)</p> <p><i>Check if the applied formulae and methods for calculating baseline emissions, project emissions and leakage are in accordance with the monitoring plan and / or the approved methodology.</i></p> <p><i>Assess whether the provided calculations are complete and reflect all requirements of the monitoring plan.</i></p> <p><i>Check especially that no standard or old values have been used for calculation where calculations based on up-to-date data is required.</i></p> | /MR/ /PDD/ | <p>CAR D1, E1 and E3.</p> <p><i>Justification of evidences: /XLS/, /MR/, /PDD/</i></p> <p><i>Conclusion:</i></p> <p>CAR E3: The overall emission removal calculation has been found conservative and correct in terms of parameters applied. Nevertheless it has not been calculated in the order given by the tool: "Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities" EB 60 Annex 13 or as per the applied methodology. Correction is requested.</p> <p>CAR E3: For stratum 5 the applied allometric equation is not for eucalyptus and gravillea but the one for natural regeneration. Correction is required.</p> | <p>E3</p> <p>CAR E1</p> <p>CAR D1</p> <p>FAR D1</p> | |
| <p>E.5. Emission removals table (EB 54 Annex 34, E.4)</p> <p><i>Check if the MR includes a summary table of the emission removals calculation specifying separately</i></p> <ul style="list-style-type: none"> - Total baseline emissions - Total project emissions: - Total leakage - Total emission removals. <p><i>Assess whether the values are correct or need to be</i></p> | /XLS/ | <p><input checked="" type="checkbox"/> The MR includes in section E.4 a summary table of the emission removals calculation.</p> <p><input checked="" type="checkbox"/> The summary table specified the total baseline, project and leakage emissions as well as the total emission removals separately.</p> <p><input type="checkbox"/> The values as specified in the ER summary table are correct; no issues have been identified during the verification which require changes in the ER calculation.</p> <p><input checked="" type="checkbox"/> During the verification issues with impact on the ER calculation have been identified. Thus subject to the closure of above listed findings the summary table in E.4</p> | <p>CAR E4</p> <p>CAR E5</p> | OK |

| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
|---|--------------------------------|--|-----------------|-----------------|
| <i>revised as a consequence of issues identified above.</i> | | <p>needs to be revised.</p> <p>In this context the following additional findings have been identified:</p> <p>CAR E4: Section E “Emission reduction calculation” <i>Note: There is no existing monitoring report template for AR projects, thus this section must be adopted by the PP in a way it fits the requirements for AR projects.</i></p> <p>Following calculations and respective formulas applied are missing for: E.1 baseline removals, baseline emissions, E.2 project removals, project emissions, E.4 emission reduction calculation.</p> <p>CAR E5: Section E.3 Leakage Calculation of emission from fossil fuel burning is not required as per EB 63 Annex 26 both within and outside the project boundary.</p> | | |
| <p>E.6. Comparison with ex-ante determined emission removals (EB 54 Annex 34, E.5; E.6)</p> <p><i>Check if the MR includes a comparison of actual values of the monitoring period with the estimations in the registered PDD.</i></p> <p><i>Check further whether in case of an increase an appropriate explanation is included in the MR.</i></p> | /XLS/ /MR/ /PDD/ /SB/ | <p><i>Description:</i> The overall emission removals from 2006 to 2011 have been estimated in the PDD with 69,868.7 tCO₂. The actual amount calculated during this MP is slightly higher with 73,138.49 tCO₂ (~4%) (<u>Updated in FVR section 5</u>). Several aspects are responsible for this.</p> <p>First the minimum diameter of trees to be measured has been set down from 4 cm to 2 cm. This has been done as result of the change from BEF method to use of allometric equation to calculation of tree biomass. This change is accepted as covered</p> | CAR A+ | OK |



| Checklist Item (incl. guidance for the verification team) | Reference | Verification Team Comments (Means and results of assessment) | Draft Concl. | Final Concl. |
|--|-----------|---|-----------------|-----------------|
| <p><i>Assess in case of a significant increase whether this is due to technical or organisational changes within or outside the control of the PP which might require a notification / approval of changes (as per EB 48 Annex 66/67).</i></p> | | <p>by EB 63 Annex 27 point (p) and no harm to accuracy of estimation is given.</p> <p>Second variation might occur due to overall uncertainty of LULUCF methodologies to estimate emission removals at time of validation. Growth performance of trees very much depends on actual climate conditions over a large period.</p> <p><i>Justification of evidences: /MR//PDD//SB/</i></p> <p><i>Conclusion:</i></p> <p>CAR A1: E.6: Justification is not sufficient. For example as seen in MR and during site visit the minimum dbh has been set down, which increases the emission removals. Further stratum 5 has been considered a stratum with 0 emission removals, reducing the total emissions.</p> | | |

ANNEX 2: STATEMENTS OF COMPETENCE OF ALL INVOLVED PERSONNEL



Statement of Competence
Appointment and authorization according to the procedures
of the TÜV NORD JI/CDM Certification Program

Ms. Alexandra Nebel


| SCHEME | STATUS | VALID UNTIL |
|--------|---|-------------|
| CDM | Senior Assessor (Validation, Verification) Technical Reviewer | 2014-08-24 |
| Ji | Senior Assessor Technical Reviewer | 2014-08-24 |
| VCS | Senior Assessor Technical Reviewer | 2014-08-24 |

Authorization status for technical areas within sectoral scopes:

| CODE | TECHNICAL AREA |
|------|----------------|
| 14.1 | Forestry |

095 – Rev. 3, Date: 2011-08-25

095_S01-F003_2011-08-25_rev3 S01-F003 rev3 / 2010-04-19



Statement of Competence
Appointment and authorization according to the procedures
of the TÜV NORD JI/CDM Certification Program

Mr. Ashwin A.S.

| SCHEME | STATUS | VALID UNTIL |
|--------|----------|-------------|
| CDM | Assessor | 2012-11-29 |
| VCS | Assessor | 2012-11-29 |


Authorization status for technical areas within sectoral scopes:

| CODE | TECHNICAL AREA |
|------|----------------|
| 14.1 | Forestry |

093 – Rev. 0, Date: 2011-03-23

093_S01-F003_2011-03-23_rev0 S01-F003 rev0 / 2010-04-19





Statement of Competence
Appointment and authorization according to the procedures
of the TÜV NORD JI/CDM Certification Program

Mr. Rainer Winter

| SCHEME | STATUS | VALID UNTIL |
|--------|---|-------------|
| CDM | Senior Assessor (Validation, Verification) Technical Reviewer | 2013-07-03 |
| Ji | Senior Assessor Technical Reviewer | 2013-07-03 |
| VCS | Senior Assessor Technical Reviewer | 2013-07-03 |

Authorization status for technical areas within sectoral scopes:

| CODE | TECHNICAL AREA | TR SUBCATEGORIES |
|------|-----------------------------|---|
| 1.1 | Thermal Energy Generation | |
| 1.2 | Renewable Energies | 1.2.1 Hydro 1.2.2 Wind 1.2.3 Geothermal 1.2.4 Solar 1.2.5 Tidal |
| 4.1 | Cement Sector | |
| 4.3 | Iron and Steel | |
| 4.5 | Waste Heat Recovery | |
| 5.1 | Chemical Process Industries | |
| 9.1 | Metal Production | |
| 11.1 | Chemical Process Industries | |
| 11.2 | GHG Capture and Destruction | |
| 12.1 | Chemical Process Industries | |
| 13.1 | Waste Handling and Disposal | 13.1.1 Waste Management |

003 – Rev. 5, Date: 2011-08-01

003_001-F003_2011-08-01_m05 001-F003 rev0 / 2010-04-19

No statement of competence for
Ms. Davinah Uwella-Milenge
as ETE covering host country competence only.