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Certification Report

MANAGEMENT UNIT CERTIFICATION OF THE
CARBONFIX-PROJECT:
KIKONDA FOREST RESERVE (KFR)

REPORT NO. 600501098

18 June 2013

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



Report No.	Date of first issue	Revision No.	Revision Date	Certificate No.
600501098	31 Jan 2013	5	18 June 2013	-

Subject: Management Unit Certification of a CarbonFix Project version 3.2	
Accredited TÜV SÜD Unit: TÜV SÜD Industrie Service GmbH Certification Body "climate and energy" Westendstr. 199 80686 Munich, Germany	TÜV SÜD Contract Partner: TÜV SÜD Industrie Service GmbH Carbon Management Service Westendstr. 199 80686 Munich, Germany
Project Participant: global-woods AG Stohren 5, 79244 Münstertal Germany	Project Site(s): The project area and the respective Management Unit (MU) are located in the Kiboga district of Uganda. The PDD includes information on geographic boundary. Digital boundary files are provided jointly with this report. The MUs from the initial certification include MUs 002 - 016, covering 907 ha of planted area (i.e. no fire lines). With fire lines included, the area of the MUs cover 921 ha. This MU certification includes the new MUs 017 - 031, which cover 2015 ha, which only includes planted area (i.e. no firelines). With firelines included, the area of the MUs cover 2043 ha.
Project Title: Kikonda Forest Reserve	
Applied Methodology / Version: CarbonFix Standard version 3.2	
Initial registered PDD , date of issuance: 25 Nov 2008	
First revised PDD Version (with new MUs): Date of issuance: July 2012	Final revised PDD version (with new MUs): Date of issuance: 18 Apr 2013
Ex-ante estimated total Emission Reduction over a 50 year crediting period for MUs 002 - 031:	888,033 t CO₂-e
Ex-ante estimated total Emission Reduction excluding the 30% CarbonFix risk buffer over a 50 year crediting period for MUs 002 - 031:	621,623 t CO₂-e
Estimated Total CarbonFix risk buffer (30%) for MUs 002 - 031:	266,410 t CO₂-e
<p><i>The amount of Emission Reductions stated in the CarbonFix internal "Climate Projects" system is not in compliance with the actual calculations that were checked by TÜV SÜD. Considering that the figures and calculations in "Climate Projects" are not traceable, the audit team cannot confirm the figures that are provided by Climate projects (in particular the document "Management-Units_KFR_CFS.pdf" for this project).</i></p> <p><i>Figures in Climate Projects, which cannot be confirmed by TÜV SÜD are:</i></p> <p>Ex-ante estimated total Emission Reduction over a 50 year crediting period: 902,946 t CO₂-e</p> <p>Ex-ante estimated total Emission Reduction excluding the 30% CarbonFix risk buffer over a 50 year crediting period: 632,062 t CO₂-e</p> <p>Estimated Total CarbonFix risk buffer (30%): 270,884 t CO₂-e</p>	

Assessment Team Leader: Sebastian Hetsch	Technical Reviewer: Martin Hammer, Martin Opitz
Assessment Team Members: Hubertus Schmidtke	Certification Body responsible: Elena Schmidt
Summary of the Certification Opinion: <input checked="" type="checkbox"/> The review of the project design documentation and the subsequent follow-up interviews have provided TÜV SÜD with sufficient evidence to determine the fulfilment of all stated criteria. In our opinion, the project meets all relevant requirements for the CarbonFix Standard. Hence TÜV SÜD is recommending the project for registration by the CarbonFix Standard organisation. <input type="checkbox"/> The review of the project design documentation and the subsequent follow-up interviews did not provide TÜV SÜD with sufficient evidence to determine the fulfilment of all stated criteria. Hence TÜV SÜD will not recommend the project for registration by the CarbonFix standard organisation and will inform the project participants and the CarbonFix organisation on this decision	

Abbreviations

CAR	Corrective Action Request
CB	Certification Body
CDM	Clean Development Mechanism
CFS	CarbonFix Standard
CR	Clarification Request
DOE	Designated Operational Entity
EIA	Environmental Impact Assessment
FAR	Forward Action Request
FSC	Forest Stewardship Council
GHG	Greenhouse Gas(es)
GIS	Geographic Information System
GPG	Good Practice Guidance
GPS	Global Positioning System
IPCC	Intergovernmental Panel on Climate Change
IRL	Information Reference List
IRR	Internal Rate of Return
LULUCF	Land-Use, Land-Use Change and Forestry
MAI	Mean Annual Increment
MP	Monitoring Plan
MU	Management Unit
NCA	Nature Conservation Area
NGO	Non Governmental Organisation
PDD	Project Design Document
PP	Project Participant
TÜV SÜD	TÜV SÜD Industrie Service GmbH
UNFCCC	United Nations Framework Convention on Climate Change



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1. Introduction

1.1 Objective

The objective of the Management Unit (MU) Certification is an independent assessment by a third party, of a proposed Management Units of the already registered project activity against all defined criteria set forth by the CarbonFix Standard. The MU certification is part of the project cycle and will finally result in a conclusion by the executing Certification Body whether the MUs are valid and should be submitted for registration to the CarbonFix Standard Organisation. The ultimate decision on the registration of the MUs rests with the CarbonFix Organisation.

The new MUs assessed object of this certification will be submitted under the registered CFS project activity “Kikonda Forest Reserve”.

1.2 Scope

The scope of any assessment is defined by the underlying legislation, regulation and guidance given by relevant entities or authorities. In the case of a CarbonFix project the scope is set by

- the CarbonFix Standard,
- guidance documents provided by the CarbonFix Standard,
- the AR-CDM additionality tool for afforestation / reforestation projects.
- Management systems and auditing methods
- Environmental issues relevant to the applicable sectoral scope
- Applicable environmental and social impacts and aspects of CarbonFix project activity
- Sector specific technologies and their applications
- Current technical and operational knowledge of the specific sectoral scope and information on best practice.

The certification is not meant to provide any consulting towards the client. However, stated Requests for Clarification and/or Requests for Corrective Actions may provide input for improvement of the project design.

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

The purpose of the validation is to demonstrate compliance or non-compliance of the MUs with all stated and valid CarbonFix requirements. Additionally, the purpose of the certification is to enable the registration of the proposed MUs, which is only a part of the total CarbonFix project cycle.

1.3 Level of assurance and Materiality

The certification report expresses a conclusion with a limited level of assurance about whether the reported net anthropogenic GHG removals data is free from material misstatements. TÜV SÜD applied a materiality threshold with respect to omission or misstatements concerning reported quantities.

The audit team points out that based on the process and procedures conducted as part of this certification; there was no evidence that indicates that this GHG assertion

- is not materially correct and is not a fair representation of the GHG data and information presented, and
- was not prepared in accordance with the CarbonFix Standard.

2. Methodology

The project assessment applies standard auditing techniques to assess the correctness of the information provided by the project participants. The work starts with the appointment of the team covering the technical scope, technical area and relevant host country experience for evaluating the project activity. Members of the audit team carry out the desk review, follow-up actions, resolution of issues identified, and finally preparation of the certification report. The prepared certification report and other supporting documents then undergo an internal quality control by the CB “climate and energy” before submission to the CarbonFix Standard Organisation.

In order to ensure transparency in the certification process, assumptions are clearly and explicitly stated and background material is clearly referenced. CarbonFix provides a methodology-specific checklists and protocol customised for the project (see annex 1). The protocol shows, in a transparent manner, criteria (requirements), the discussion of each criterion by the assessment team, and the results from validating each relevant criterion.

The certification protocol serves the following purposes:

- To list the details of requirements which a CarbonFix project is expected to meet and provide of clarifications on the requirements if needed;
- To elucidate how a particular requirement has been validated as well as to document the results of the certification and any adjustments made to the project design document.

The completed certification protocol is enclosed in Annex 1.

2.1 Appointment of the Assessment Team

According to the technical scopes and experiences in the sectoral or national business environment, TÜV SÜD has composed a project team in accordance with the appointment rules of the TÜV SÜD certification body “climate and energy”.

The composition of an assessment team has to be approved by the Certification Body (CB) to assure that the required skills are covered by the team. The CB TÜV SÜD operates the following qualification levels for team members that are assigned by formal appointment rules:

- Assessment Team Leader (ATL);
- Validator / Verifier (V);
- Trainee (T);
- Technical Experts (TE).

It is required that the sectoral scope(s) and the technical area(s) linked to the methodology and project have to be covered by the assessment team.

Assessment Team:

Name	Qualification	Coverage of scope	Coverage of technical area	Coverage of financial aspect	Host country experience
Sebastian Hetsch	ATL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> (14.1)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Hubertus Schmidtke	V	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> (14.1)		

Technical Reviewer:

- Martin Hammer (Technical Review Leader)
- Martin Opitz (coverage of respective TA 14.1)



2.2 Review of Documents

The first PDD for the new MUs was submitted to the audit team in July 2012. This PDD version and additional background documents related to the project design and baseline were reviewed to verify the correctness, credibility, and interpretation of the presented information. As a further step of the certification process, information provided by the PP was cross-checked with information from other sources (if available). A complete list of all documents and proofs reviewed is attached as Annex 2 to this report.

2.3 Follow-up Interviews

Between 04 and 09 Sep 2012, TÜV SÜD performed interviews, telephone conferences and physical site inspections with project stakeholders to confirm relevant information and to resolve issues identified in the first document review. The following table provides a list of all persons interviewed in this process.

Persons Interviewed:

Name	Organisation
Otim Moses	Senior Forester Global Woods
Blessing Mutambukye	Forester Global Woods
Asiimwe Johs Paul	Forester Global Woods
Ariho Alex Nelson	Forester Global Woods
Francois Jacobs	Estate Manager Global Woods

2.4 Cross-check

During the certification process the team has made reference to available information related to similar projects or technologies as the CarbonFix project activity. Project documentation has also been reviewed against the approved methodology applied to confirm the appropriateness of formulae and correctness of calculations.

2.5 Resolution of Clarification and Corrective Action Requests

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

The final PDD submitted in April 2013 serves as the basis for the final assessment presented.

2.6 Internal Quality Control

Internal quality control is the final step of the certification process and is conducted by the CB "climate and energy" who checks the final documentation, which includes the certification report and annexes. The completion of the quality control indicates that each report submitted has been approved either by the head of the CB or the deputy. In projects where either the Head of the CB or his/her deputy is part of the assessment team, the approval is given by the one not serving on the project team.

After confirmation by the PP, the certification opinion and relevant documents are submitted to CarbonFix through their web-platform.

3. Summary of Assessment

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

Detailed findings are listed in Annex 1 of the report

4. Certification Conclusion & Opinion

TÜV SÜD performed a Management Unit Certification of the MUs 017 - 031 of the proposed CarbonFix project activity "Kikonda Forest Reserve".

Standard auditing techniques have been used for the certification of the project. A methodology-specific protocol for the project has been prepared to conduct the audit in a transparent and comprehensive manner.

The review of the project design documentation, subsequent follow-up interviews, and further verification of references have provided TÜV SÜD with sufficient evidence to determine the fulfilment of stated criteria in the protocol. In the opinion of TÜV SÜD, the project meets all relevant CarbonFix Standard requirements if the underlying assumptions do not change. TÜV SÜD recommends the MUs 017 – 031 of the project for registration by the CarbonFix Standard organisation.

An analysis, as provided by the applied methodology, demonstrates that the proposed project activity is not a likely baseline scenario. GHG removals attributable to the project are additional to any that would occur in the absence of the project activity. Considering that the project will be implemented as designed, the project with its MUs 002 – 031 is likely to achieve the total estimated amount of GHG removal of 888,033 tCO₂e over the 50 years crediting period, as specified within the final PDD version. As per the CarbonFix Standard 30% of the above stated amount (266,410 t CO₂e) will be included in the CarbonFix buffer.

The amount of Emission Reductions stated in the CarbonFix internal "Climate Projects" system is not in compliance with the actual calculations that were checked by TÜV SÜD. Considering that the figures and calculations in "Climate Projects" are not traceable, the audit team cannot confirm the figures that are provided by Climate projects (in particular the document "Management-Units_KFR_CFS.pdf" for this project).

The certification has been performed following the requirements of the CarbonFix Standard and on the basis of the contractual agreement. The single purpose of this report is its use during the registration process as part of the CarbonFix project cycle. Based on the work described in this report, nothing has come to our attention that causes us to believe that any project component or issue has not been covered by the certification process.

Munich, 18 June 2013

Munich, 18 June 2013



Elena Schmidt

Sebastian Hetsch

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

Assessment Team Leader
TÜV SÜD Industrie Service GmbH



Annex 1: Certification Findings

1. A description of the historical and the current situation of the project area must be given for the last 50 years. This description must include the development of its socioeconomic situation, its changes in land-uses and changes of property rights.

Findings

The historical and the current situation of the project area are described (directly taken from the PDD 2008).

Naming and numbering of main reference are not consistent

Reference is indicated as REF 2: 02_CFS_KFR_PDD, Page 7

The related document is the PDD from 2008 (PDD_KFR_CFS.pdf)

The new PDD from 2012 has the same file name

References (IRL): 2

CARs / FARs / NCRs

Corrective Action Request No 1

Provide consistency in reference file naming and numbering of pages throughout the whole document.

Response by PP:

The PDD of the first certification in 2008 has been numbered and renamed:

"PDD_KFR_CFS_2008.pdf"

The new PDD of the current certification 2012 has been reassembled, renumbered and renamed:

"PDD_CFS_KFR_2012.pdf"

Conclusion by the audit team

File names changed only. New Ref 2b: PDD_KFR_CFS_2008.pdf, new Ref 3b: PDD_CFS_KFR_2012_30112012.pdf.

Consistency through the document is provided. Request closed.

A description of the historical and current situation of the project area is included in the PDD, including the socio-economic situation, land-use and property rights. The audit team reviewed the information and cross-checked it with references and confirms compliance with the standard requirements.

Final Conclusion

- Accepted
- Accepted with FAR (01-01 ID of the FAR)
- Not accepted with NCR (01-01 ID of the NCR)



Preconditions

01 Eligibility

2. Planting area is ONLY eligible, if the land:
- is planted with trees during the initial certification AND
 - is not a forest at the date of the project start AND
 - will result in the creation of a forest AND
 - has not been a forest for at least 10 years prior to the planting start OR has been a forest in the last 10 years prior to the planting start, but evidence is given that absolutely no relation between the project participants and the cause of deforestation exists (e.g. that the forest destruction was caused by force majeure)

Criterion 2d. must be proven by the interpretation of satellite images, aerial photographs, official maps or land-use records.

Findings

Ad a.: Document review (Ref. 7 Certification report 2009) and field visit showed that the trees were planted within the initial certification period. The numbering of the "old" management units of 921 ha of the Certification Report 2009 has changes compared with the new one

Ad b.: Eligibility related with non-forest status 10 years before planting start was described in the initial PDD of 2008 and there sustained with evidence of satellite image interpretation. The non eligible areas are delineated and provided as shape files (Ref. 16).

Ad c.: Through field visit it can be confirmed that all new MU's are planted with trees and will result in a forest.

Ad d.: No statement is given concerning conditions of 01 Eligibility d.

References (IRL): 3a, 7, 16

CARs / FARs / NCRs**Corrective Action Request No 2**

Ad a.: Provide consistency in numbering the MU's

Ad c.: Provide statement on creation of forest

Ad d.: Provide statement on non-forest status of the project plantation area.

Response by PP:

Ad a.: Provide consistency in numbering the MU's

The table below has been copied out of the "Certification_Report_KFR_CFS_2009.pdf"

The highlighted fields and letters/numbers have been added for clarification

Both numbering systems are used for the CO₂-Fixation-calculation

The identification system Management Unite (MU ID) is used by the CFS standard, the planting unit ID (i.e. 0402) is used by global-woods for the internal identification

Ad c.: Provide statement on creation of forest

Over 1000 seedlings are planted on each hectare. The annual inventories proof that a dense forest is developing with an Mean Annual Increment (MAI) of over 25 m³/ha. With this constant monitoring, a first class forest management and safety measures like fire fighting teams, all necessary means are in place that a nice even age forest is developing on the planted areas.

Ad d.: Provide statement on non-forest status of the project plantation area.

For the assessment of historical and existing land cover, satellite images of the years 1990, 1995 and 2001 were used since other sources such as forest and land-use inventories were not available.

The project takes place in the 'Kikonda Forest Reserve'. Forest Reserves were established by the government in all parts of the country during the 1960s in areas which were not forested yet or not



Preconditions

01 Eligibility

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 - will result in the creation of a forest AND
 - has not been a forest for at least 10 years prior to the planting start OR has been a forest in the last 10 years prior to the planting start, but evidence is given that absolutely no relation between the project participants and the cause of deforestation exists (e.g. that the forest destruction was caused by force majeure)

Criterion 2d. must be proven by the interpretation of satellite images, aerial photographs, official maps or land-use records.

any more. The satellite images and the funding cause are proof that the KFR has not been deforested for the purpose of establishing an afforestation.

Conclusion by the audit team

Ad a.: The numbering of the MU is explained and now consistent throughout the new Project Document REF. 3b

Ad c.: A statement on the creation of forest is provided in Ref 3b as required.

Ad d.: A statement on the non-forest of the project plantation area is now provided in Ref 3b and referred to Ref. 26.

The descriptions/statements provided in the PDD were confirmed during onsite.

The audit team confirms that the new MUs comply with the eligibility criteria as set out by CFS 3.2: trees are planted, the area was not forest at project start and also no forest 10 years prior to the planting start

Final Conclusion

- Accepted
 Accepted with FAR (...)
 Not accepted with NCR (...)



Preconditions

01 Eligibility

3. Planting area is NOT eligible, if the land:
- was deforested and thereafter replanted in order to generate CO2-certificates OR
 - is wetland OR
 - is situated on ground that is permafrost OR
 - is agriculture farming land and threatens the food security of the local population through the conversion to forest.

Findings

Ad a), b), c), d) no statement is provided in the PDD, but reference to the PDD 2008 is provided. The information was confirmed by the audit team already in the initial certification report. Main basis for the assessment was a remote sensing analysis (IRL 24)

Ad a): Ref 2: 02_CFS_KFR_PDD, Page 6

Ad b): Ref 2: 02_CFS_KFR_PDD, Page 1-5

Ad d): Ref 2: 02_CFS_KFR_PDD, Page 6

References (IRL): 2, 24

CARs / FARs / NCRs**Corrective Action Request No 3**

The PP shall provide information on eligibility as required by the standard, whether the land:

- was deforested and thereafter replanted in order to generate CO2-certificates OR
- is wetland OR
- is situated on ground that is permafrost OR
- is agriculture farming land and threatens the food security of the local population through the conversion to forest.

Response by PP:

a) Planting area is NOT eligible, if the land was deforested and thereafter replanted in order to generate CO2-certificates

- As proven by the satellite picture analysis the project area has been deforested long time before the project manager (the company global-woods) started its activities in Uganda.
- There is no relation between the project manager and the people causing the deforestation until the project started in 2002.

b) Planting area is NOT eligible, if the land, is wetland

- By the means of satellite images and ArcGis, wetlands and still forested patches within the Kikonda Forest Reserve have been identified. Clipping these non eligible area with the total area of the reserve leaves a map showing only the eligible areas of the reserve.

c) Planting area is NOT eligible, if it is situated on ground that is permafrost

- Permafrost or cryotic soil is soil at or below the freezing point of water 0 °C for two or more years. Most permafrost is located in high latitudes (i.e. land close to the North and South poles).
- Alpine permafrost may also exist at high altitudes in much lower latitudes.
- Neither high latitudes nor high altitudes are at the KFR. Temperatures hardly ever reach 0°C, so there is no permafrost within the area of the reserve.

d) Planting area is NOT eligible, if it is agriculture farming land and threatens the food security of the local population through the conversion to forest.

- As demonstrated by the analysis of the satellite pictures there was nearly no agricultural area (0.01 ha) for food production (crop land) within the project area at the project start. Since the project area is a forest reserve set aside for timber production only by the Ugandan state, food production would be illegal.



Preconditions

01 Eligibility

3. Planting area is NOT eligible, if the land:
- a. was deforested and thereafter replanted in order to generate CO2-certificates OR
 - b. is wetland OR
 - c. is situated on ground that is permafrost OR
 - d. is agriculture farming land and threatens the food security of the local population through the conversion to forest.

Conclusion of the audit team

Information regarding the eligibility of the new MUs are provided in the PDD. The audit team cross-checked the information by reviewing respective information, in particular the remote sensing analysis (see also initial certification) and during physical observation of the audit team.

It is confirmed that the land

- a. was not deforested and thereafter replanted in order to generate CO2-certificates (Ref 24)
- b. is not wetland (Ref 24)
- c. is not situated on ground that is permafrost (there is obviously no permafrost in the tropics on the local elevations)
- d. is not agriculture farming land and threatens the food security of the local population through the conversion to forest and sustained with Ref 24.

The descriptions/statements provided in the PDD were confirmed during onsite. Request is closed.

Final Conclusion

- Accepted
- Accepted with FAR (...)
- Not accepted with NCR (...)



Preconditions

01 Eligibility

4. Evidence must be given, that in case any agricultural, agroforestry or silvopasture activities are taking place on the planting area, they contribute to the aim of creating a forest.

Findings

Within the project, sheep are being used to maintain the grass between the young trees. The animals are guarded by staff of the project.

Ref 2b: Page 6.

During field visit interviewed staff informed that the use of sheep to suppress grass vegetation was given up. The sheep were owned by the project and guarded by project staff. The problems with diseases of the sheep, and the costs made the management change its mind. The grass vegetation is cut manually, as observed during field visit.

References (IRL): 2b

CARs / FARs / NCRs**Final Conclusion**

- Accepted
 Accepted with FAR (...)
 Not accepted with NCR (...)

5. Evidence must be given that project activities will NOT lead to a long-term increase of greenhouse gas emissions in the carbon pool 'soil' on the project area.

Findings

Irrigation, drainage and ploughing are not practiced in the project area. This was confirmed during field visit.

Planting operations are described to be limited to pits of 30 cm depth and width.

Through field visit it can be confirmed that the planting operations are limited to a small planting hole.

Forest operations are indicated to be strictly limited.

Field visit showed that up to now no large scale harvest activities have been conducted. Forest operations like weeding and pruning are done manually.

References (IRL): 2b

CARs / FARs / NCRs

- Accepted
 Accepted with FAR (...)
 Not accepted with NCR (...)



Preconditions

01 Eligibility

6. If litter (leaves and small branches) is extracted from the eligible planting area, it must be limited to the extent of not harming the nutrient balance of the soil.

Findings

According to the PDD no litter (leaves and small branches) is extracted. The audit team confirmed this management practice during the field visit of the project area.

References (IRL): 2b**CARs / FARs / NCRs****Final Conclusion**

- Accepted
- Accepted with FAR (...)
- Not accepted with NCR (...)



02 Additionality

1. Evidence must be given that the project is not business as usual. Therefore, the additionality analysis must be executed according to the latest version A/R CDM 'Combined tool to identify the baseline scenario and demonstrate additionality in A/R CDM project activities'.

Findings

At the initial start of the project, it was foreseen to include all eligible planting area in the Kikonda Forest Reserve as part of the carbon projects. Therefore, the reasoning to sustain the additionality of the project already covered the entire eligible planting area of the Kikonda Forest Reserve. Respective explanation is provided in the initial PDD and the validation report by TÜV SÜD.

The audit team confirms that no substantial changes have occurred in regards to additionality. Therefore, the new MUs are also considered additional in line with the current CFS requirements

Ref 7: Certification Report 2009, Ref 2b: : PDD_KFR_CFS_2008.pdf, Page 9-13

References (IRL): 2b, 7

CARs / FARs / NCRs

Final Conclusion

- Accepted
- Accepted with FAR (...)
- Not accepted with NCR (...)



02 Additionality

2. Evidence must be given that the most likely without-project-scenario would not lead to an increase of 'woody biomass' on the eligible planting area. If this is not the case, the baseline must refer to the biomass that would have been on the area in the long-term.

Findings

At the initial start of the project, it was foreseen to include all eligible planting area in the Kikonda Forest Reserve as part of the carbon projects. Therefore, the reasoning to sustain the additionality of the project already covered the entire eligible planting area of the Kikonda Forest Reserve. Respective explanation is provided in the initial PDD and the validation report by TÜV SÜD. The audit team confirms that no substantial changes have occurred in regards to additionality. Therefore, the new MUs are also considered additional in line with the current CFS requirements

The statement by Paul Jacovelly, Chief Technical Advisor of the National Forest Authority of Uganda (NFA) (16.09.2004, Kampala) describes clearly the ongoing degradation of the forest reserves due to encroachment through cattle grazing.

Ref 21: Kikonda - planting trees law not enforced. It is sustained that there is degradation and no increase of woody biomass in the without project scenario.

Ref 2: PDD_KFR_CFS_2008.pdf, Page 13. Ref 7: Certification Report 2009.

This was sustained during onsite visit. The degradation of the vegetation was obvious (no high trees left).

References (IRL): 2, 7

CARs / FARs / NCRs

Final Conclusion

- Accepted
- Accepted with FAR (...)
- Not accepted with NCR (...)



02 Additionality

3. Evidence must be given that the project contributes to a more sustainable development than the most likely without-project scenario, short-, mid- and long-term.

Findings

Baseline and project case are described for short, mid and long term. It is described that unsustainable production of charcoal and cattle grazing is being stopped and on the other hand on the long run up to 600 people will be employed.

Ongoing charcoal production and cattle grazing outside the project area with ongoing degradation and non-existence of these activities on the project area could be observed during onsite visit.

According to clarification request ID 026 from the CFS this criteria is met, if the requirements of the chapters "04 Environmental Aspects" and "05 Socio-Economic Aspects" are met.

Since the project and in particular the new MUs comply with the requirements of "04 Environmental Aspects" and "05 Socio-Economic Aspects", this requirement is also met.

References (IRL): 2, 2b

CARs / FARs / NCRs

Final Conclusion

- Accepted
- Accepted with FAR (...)
- Not accepted with NCR (...)



1. A description of the project's general forest management objectives must be given.

Findings

The general description of the project's general forest management objectives is included in the PDD:

- Sustainable sequestration of CO₂ with the trees.
- The production of wood for the national markets of timber and energy wood.
- The conservation of biodiversity.
- Improving the economic situation of the surrounding villages.

The audit team confirms compliance with the requirement

Ref 2: : PDD_KFR_CFS_2008.pdf, Page 15

References (IRL): 2

CARs / FARs / NCRs

Final Conclusion

- Accepted
 Accepted with FAR (...)
 Not accepted with NCR (...)

2. Evidence must be given that the boundaries of the project area, planting area (eligible and non-eligible), management units and nature conservation area are clearly defined and visible in the field.

Findings

The boundaries of the project area, planting area (eligible and non-eligible), management units and nature conservation area are clearly defined and visible in the field through 6 - 9m wide strips, clearly visible in the field. The audit team confirmed the information during the onsite visit

CARs / FARs / NCRs

Final Conclusion

- Accepted
 Accepted with FAR (...)
 Not accepted with NCR (...)



03 Forest Management

3. A description of the following tree species characteristics must be given:
- Origin and distribution of the tree species (indicate if the species are native or not)
 - Provenance of the seeds
 - Main purpose / Use of trees
 - Possible pests and diseases
 - Time when forest products are foreseen to be used

Findings

A table is provided in the PDD showing the specific information on the origin and distribution of the tree species (a), the provenance of the seeds (b), the main purpose / use of trees (c), possible pests and diseases (d) and Time when forest products are foreseen to be used for the four tree species. The audit team confirms compliance with the requirement.

Ref 2: 02_CFS_KFR_PDD, Page 17

References (IRL): 2

CARs / FARs / NCRs

Final Conclusion

- Accepted
 Accepted with FAR (...)
 Not accepted with NCR (...)



4. Evidence must be given that at least 10% of the project area is managed

- a. as a nature conservation area OR
- b. to meet a national or sub-national HCV area definition.

Criterion 4. does not have to be fulfilled in case more than 30% of the project area is managed according to chapter '06 CO₂-fixation - Option 1b) Conservation forest'.

Findings

In Ref 2: PDD 2008 Page 15 3'575 ha are indicated as conservation area which is 29% of the total area.

This was derived and satisfyingly sustained through analysis of the satellite pictures of 2006 presented in the chapter Eligibility. Ref. 24.

The borders indicated in Ref. 24 were confirmed during field check.

Ref 3 indicates 2437 ha or about 20% of the Project area to be aimed to be set aside for conservation purposes. The final figure will be determined when the tree planting is finalized.

The total area in the most recent PDD is different to the validated ones (12'186 ha Ref 3 p.11).

The criterion of at least 10% conservation area is fulfilled.

References (IRL): 2,3, 24

Corrective Action Request No 4

Provide consistency in area figures between the PDD and shape files.

Response by PP:

- Since the last CFS certification in 2008, the forest management plans regarding the planned nature conservation area have been adapted from former 29% (3 575 ha) to currently about 20% (2437 ha).
- The current planning for the future planted areas are done based on satellite images. But sometimes the actual field conditions are different on the ground and hence to be adapted accordingly.
- The current future goal of for the conservation area is about 20% (about the double the area necessary for the certification).
- The total area figure given in Ref.26 (Tree farming license.pdf) is 12 186 ha.
- The shapefile "Reserve Boundary" which has been provided by the NFA (National Forestry Authority's) and which is THE base for all planning and measurement in the field, only shows an area of about 12 182 ha (exact: 12 182.235 ha).
- To facilitate future communication and certification, the area figure given by the shapefile (12 182ha) will be used and communicated!
- All relevant documents/calculations have been adapted accordingly.

Conclusion of the audit team

Consistency of area figures is given. The area of 12'182 ha is used Ref 17: Reserve Boundary.shp

The audit team confirms that at least 10% of the project area is managed a. as a nature conservation area.

Final Conclusion

- Accepted
 Accepted with FAR (...)
 Not accepted with NCR (...)



03 Forest Management

5. Evidence must be given that the nature conservation area is managed in order to establish, maintain or restore the natural ecosystem of the landscape the project is integrated in.

Findings

It is described that managing the conservation areas consists mainly in protecting them from illegal activities like cattle grazing or charcoal production. A particular management plan for site preparation is developed by the PP to ensure that any clearance do not harm the conservation objectives.

The SOP "Site Preparation" was provided during field visit (Ref. 27). The SOP describes the procedure to avoid damages on biodiversity. Before clearance operations start a survey has to be conducted in order to find out if there are any items of biodiversity value are there to be found. These items are species listed in the IUCN red-list and closed forest (at least 1 ha, 5 meters high, 30% crown cover). During onsite visit the correct application of the SOP could be confirmed.

References (IRL): 27

CARs / FARs / NCRs

Final Conclusion

- Accepted
 Accepted with FAR (...)
 Not accepted with NCR (...)

6. Evidence must be provided that the protection or management of the nature conservation area enhances habitat connectivity.

Findings

The nature conservation areas are integrated into the planted area like a network. This is sustained with maps GIS-files. Ref. 4. The borders indicated in Ref. 4 were confirmed during field visit.

References (IRL): 4

CARs / FARs / NCRs

Final Conclusion

- Accepted
 Accepted with FAR (...)
 Not accepted with NCR (...)



7. Key figures on the following areas must be provided:

- a. Project area
- b. Planting area(s)
- c. Eligible planting area(s)
- d. Nature conservation area(s)

Findings

Key figures a. (12'186 ha), b. (3'405.8 ha), c. (3'406.7 ha), and d (2'437 ha) are provided. Shape file on c. eligible areas is provided containing 3039.1 ha (Ref. 16).

References (IRL): 16

CARs / FARs / NCRs

Corrective Action Request No 5

Provide shape files on all categories (Project area, Planting area, Eligible area, Nature conservation area) and provide consistency with figures indicated in PDD. Explain determination of borders.

Response by PP:

- The border is determined by a boundary map provided by NFA. This map reflects the delineation made in the 1960s as well as subsequent boundary opening exercises. On the ground, corners of the boundary are marked with corner trenches of app. 1 meter depth and width and 3 meters length. In the areas where trees are planted, a fence with three lines of barbed wire is set up.
- Ad a.) As stated in CAR 4 the project area (according to the Ref. 26) is 12 186 ha, but will from now on considered to be 12 182 ha as this is the given size given by the GIS shape file "Reserve Boundary" submitted by the NFA- Uganda (and base for all calculations and management).
- Ad b.) According to the most actual GIS-field data, the total planting area at data of the certification (field visit) has been 3408.93 ha (according to GIS shape files "Planted area 2002-2008; Planted area 2009-2012".
- Ad c.) The eligible planting area has been determined by the means of satellite images taken in 1990 (see Ref.2, PDD_KFR_CFS_2008.pdf Page 1-5; Eligibility). For the planted area 2002-2008, all areas with the attribute "Wetland, Natural Forest and Other Land-use" have been considered as "Non-eligible".
For the planted area 2009-2012, all areas with the attribute "Natural Forests and Other Land-use" have been considered as "Non-eligible". It became obvious, that the areas defined as "Wetland" according to the satellite image of 1990 is not reflecting the actual condition in the field. Its practicability to define "wetland or non-wetland" in the field is therefore limited. The more realistic and practical approach used, is determine the "wetland-zone" right on the spot. This is done by an independent auditor (Dr. James Kalema, Botanist at Makerere University, Kampala).
- Ad d.) About 20% (2436.4 ha) of the project area are aimed to be set aside for conservation purposes. The final figure is yet to be determined when the tree planting is finalized. The nature conservation area will mainly consist of areas which are already considered as "non eligible".
- All relevant Shapefiles are provided in the folder "Shapefiles for 03-09 Page 16 PDD" which is also providing the necessary information required for question 03-09 of the PDD_2012. (Tobias Depnering, 05.11.2012)



7. Key figures on the following areas must be provided:

- a. Project area
- b. Planting area(s)
- c. Eligible planting area(s)
- d. Nature conservation area(s)

Conclusion of the audit team

New key figures are provided

- a. (12'182 ha), area of shape file Ref 17
- b. (3253.1ha), sum of areas in attribute tables of shape files Ref 29 plus Ref 30, Ref 34
- c. (2'964.5 ha), sum of areas in attribute tables of shape files Ref 31 plus Ref 32, Ref 34
- d. (2'436.4 ha), The final figure is yet to be determined when the tree planting is finalized.

For the boundaries were confirmed through sampling during the onsite the figures can be confirmed.
CAR is closed.

Final Conclusion

- Accepted
 Accepted with FAR (...)
 Not accepted with NCR (...)



8. Shapefiles with the following information must be submitted through ClimateProjects:

- a. Project area(s)
- b. Management Units

Findings

Ad a.: Shape file: Eligible areas for CFS 2012.shp

Ad b.: The MU Id numbers for MU 1-16 are not in the GIS file. During the initial verification the numbering was different.

References (IRL): 16

CARs / FARs / NCRs

See CAR 5

Corrective Action Request No 6

Explain the system of numbering the MU's. Include the MU ID in the attribute table of the GIS file.

Response by PP:

- All relevant GIS-files (See CAR 5) ("Planted area 2002-2008", "Planted area 2008-2012", "Planted Area_ 2002-2008_Eligible for_CFS", "Planted Area_2009-2012_Eligible for_CFS") have been corrected accordingly with a specific MU-ID (001-016, and 017-031). This MU-ID has already been used for the CFS-certification 2008 and is also used for the Management Units in Climate projects.
- All Management Units can be identified by 2 different ID-attributes. The most frequently used identification within the daily work and the field data base is the numbering by planting year (season) i.e. 2010-I-3. ("2010" stands for the planting year, "-I-" stands for the planting season, "-3" stand for the specific planted area or stratum.
- The ID used mainly for the CFS-certification is the MU-ID (001-031)

Conclusion of the audit team

According to Ref 29, 30, 31, 32 GIS-files have been corrected with the specific MU-ID. The system is explained. Correct Shapefiles are submitted to ClimateProjects, hence the requirement is fulfilled

Final Conclusion

- Accepted
 Accepted with FAR (...)
 Not accepted with NCR (...)



9. The certification body may require the submission of shapefiles with the following information:

- a. Land-use classes of the project area 10 years prior to planting start for '01 Eligibility'
- b. Wetland areas within the project area for '01 Eligibility'
- c. Nature conservation area(s) for '04 Environmental Aspects'
- d. Neighbours of the project (individuals, villages, towns, etc.) for '05 Socio-economic Aspects'
- e. Eligible planting area and non-eligible planting area for '06 CO₂-fixation'
- f. Land-use classes of the project area just before the planting start for '08 Baseline'
- g. Infrastructure of the project (roads, rivers, houses, etc.) for '11 Capacities'

Findings

No shape files on a., b., c., d., e., f., g. are indicated

CARs / FARs / NCRs

Corrective Action Request No 7

Indicate the related shape files for a., b., c., d., e., f., g. and provide all shape files not covered by CAR 6.

Response by PP:

All Folders containing the relevant shape-files are indicated and uploaded (see folder "Shape-files for 03-09 Page 16_PDD").

Conclusion of the audit team

The shape files are now indicated in the PDD for all categories. The files are correct and in line with the PDD. The files are also uploaded on ClimateProjects, the CAR is closed and requirement met.

Final Conclusion

- Accepted
 Accepted with FAR (...)
 Not accepted with NCR (...)



Environmental Aspects

Findings

The project is FSC certified.

In line with the Carbon Fix procedures for combined certification, environmental aspects do not need to be assessed, if a valid FSC certificate is provided.

During onsite visit a valid FSC certificate was provided (Ref. 28) and crosschecked on FSC webpage.

<http://info.fsc.org/PublicCertificateDetails?id=a0240000006tLs3AAE>

FSC License Code: FSC-C102912

Certificate Code: SGS-FM/COC-009362

References (IRL): 28

CARs / FARs / NCRs**Final Conclusion**

- Accepted
- Accepted with FAR (...)
- Not accepted with NCR (...)

**Socio-Economic Aspects****Findings**

The project is FSC certified.

In line with the Carbon Fix procedures for combined certification, socio-economic aspects do not need to be assessed, if a valid FSC certificate is provided.

During onsite visit a valid FSC certificate was provided (Ref. 28) and crosschecked on FSC webpage.

<http://info.fsc.org/PublicCertificateDetails?id=a0240000006tLs3AAE>

FSC License Code: FSC-C102912

Certificate Code: SGS-FM/COC-009362

References (IRL): 28**CARs / FARs / NCRs****Final Conclusion**

- Accepted
- Accepted with FAR (...)
- Not accepted with NCR (...)



1. The present CO₂-fixation must be assessed, once the average tree height within a management unit exceeds 3 meters. Hereby, the CarbonFix guideline 'Forest Inventory' must be followed.

Findings

Indicated as N/A

During field visit all new management units were checked. None of them reached an average tree height of more than 3 meters.

New planted MU's were checked on eligibility, boundaries, plantation (species) during field visit and found all in line with the requirements.

CARs / FARs / NCRs

Corrective Action Request No 8

Provide a statement on the Management Units considering the criterion of 3 meters average height.

Response by PP:

A newly planted seedling planted at the KFR has to struggle with wind, competing plants, poor/dry soil, wind and water-erosion. Therefore the growth, especially within the first years is happening below the soil-surface, the plants have to develop good root first. Therefore none of the newly planted stand have reached an average height of 3 meters and above yet. This could be confirmed during field a visit.

Conclusion of the audit team

A statement is provided in the PDD that the average tree height within the new MUs has not yet exceeded three meters. This was assessed and confirmed during the physical onsite visit.

CAR is closed

Final Conclusion

- Accepted
- Accepted with FAR (...)
- Not accepted with NCR (...)



2. The future CO₂-fixation is determined by a management unit specific growth-model.

Evidence must be given, that growth-models are based on credible scientific sources and site-adapted factors.

Evidence must be given that before any monitoring certification, the management unit specific growth-models are adjusted according to the latest actual monitoring data gained through the assessment of the present CO₂-fixation.

Findings

The future CO₂-fixation is based on the growth model Alder et. Al. 2003

This growth model shows height and volume curves depending on site indices and is considered scientifically sound.

Depending from the actual measurements the site class was adjusted to calculate the volumes. The mean site index increased from 18.5 to 18.9.

For new MU's a conservative site index of 18.0 was used.

The impression from site visit confirmed the magnitude of the growth rates, anyway measured through the inventory.

Ref. 10: 06-02_Kikonda-Alder-model_May 2003.pdf, Yields of Eucalyptus and Carribbean Pine in Uganda, Denis Alder et. Al. 2003

Ref. 11: 06-03_Kikonda - summary inventory+site index update 25032012.xls

Ref. 11b: 06-03_Kikonda - summary inventory+site index update 06112012_Nov_2012.xls

References (IRL): 10, 11, 11b

CARs / FARs / NCRs

Final Conclusion

- Accepted
- Accepted with FAR (...)
- Not accepted with NCR (...)



3. In case of 'selective harvesting' or 'conservation forest', the future CO₂-fixation is based on the equilibrium stand volume during the crediting period of the project. If the equilibrium stand volume is not yet reached by the end of the project's crediting period, the future CO₂-fixation is determined by the 'stand volume' of the year the crediting period ends. Evidence must be given through the project characteristics (tree species, project participants, etc.) and its silvicultural objectives that the forests will be used in a 'selective harvesting' regime or will be 'conserved' (no use of timber).

Findings

It is stated that selective harvesting or conservation forestry is applied.
All calculations are based on rotation forestry. See also 4.
Information provided onsite also says that stand wise rotation forestry concept is applied.

CARs / FARs / NCRs

Corrective Action Request No 9

Indicate the actual applied silvicultural scheme.

Response by PP:

The applied forestry scheme within the Kikonda Forest Reserve is the rotation forestry scheme with an a rotation of 18 years.

Conclusion of the audit team

Rotation forestry is now indicated as forestry scheme. CAR is closed.

Final Conclusion

- Accepted
- Accepted with FAR (...)
- Not accepted with NCR (...)



4. In case of rotation forestry, the future CO₂-fixation is based on the mean stand volume during the first rotation period.

Findings

It is stated that rotation forestry is the silvicultural scheme. The mean stand volume during the first rotation period is not indicated. (see CAR 11)

Future fixation:

4.1 For all MU's the site indices are indicated (SI: 17.6, 18.0, 18.2, 18.9, 19.2).

For future fixation it is stated that the mean volume is reached in year 18.

The mean volume was calculated using the Alder model. The volume values of the years 2, 4, 6, 8, 10, 12, 14 and 16 were averaged.

Parameters:

BEF = 1.3 [Ref. 8 (Pines) (Table 3A.1.10)]

Wood density = 0.51 [Ref. 8 (Pinus caribaea) (Table 3A.1.9-2)]

Root to shoot ratio = 0.23 [Ref. 8 (Conifer forest/plantation > 150 m³/ha) (Table 3A.1.8)]

The correct parameters are used in the Excel calculations

Ref 11: 06-03_Kikonda - summary inventory+site index update 25032012.xls

References (IRL): 6, 8, 11

CARs / FARs / NCRs

Corrective Action Request No 10

In order to ensure correct calculations of emission reductions, the PP shall clarify and indicate the rotation duration of the plantations by site index.

Response by PP

- Image is a screen shot of the Ref.10 06-02_Kikonda-Alder_model_May 2003.pdf page 14
- The rotation age of 18 years was determined based on the information given by the Alder model. It is showing that at this age the annual height growth is at its maximum and the first MAI declination appears.
- Nevertheless, the length of the rotation is constantly being scrutinized based on actual growth of the stands (reflected in the site index) as well as market requirements in terms of log sizes. According to the Alder model used, the growth rate is reduced passing the 18th year.

Conclusion of the audit team

A general rotation duration of 18 years is indicated. It is derived from the Alder model Ref 10. It will be adjusted according to the actual growth and markets requirements. Request is closed.

Corrective Action Request No 11

Ensure compliance with formula for calculation of the mean stand volume.

Response by PP

The calculation for the CO₂-Fixation has been redone and is now broken down into its 18 years of growth according to the Alder growth model and some interpolations (see document CO₂-Fixation_KFR_according_Alder_and_iste_index_2012.xls)



4. In case of rotation forestry, the future CO₂-fixation is based on the mean stand volume during the first rotation period.

All parameters are uploaded to the climateprojects online CO₂-Fixation calculation system.

Conclusion of the audit team

The formula for calculating the mean stand volume is now applied correctly by including year 1 and 18. The amount of Emission Reductions stated in the CarbonFix internal "Climate Projects" system is not in compliance with the actual calculations that were checked by TÜV SÜD. Considering that the figures and calculations in "Climate Projects" are not traceable, the audit team cannot confirm the figures that are provided by Climate projects (in particular the document "Management-Units_KFR_CFS.pdf" for this project).

Corrective Action Request No 12

The PP shall clarify if fire lines are included in the area.

Response by PP

Within the KFR there are two different sizes of fire lines use, with a width of 6m and 9m. For deduction an average mean width of 7.5m has been taken. This leads to the following calculation:

$67 \text{ km} \times 7,5\text{m} = 50.25 \text{ ha}$

$\text{Fire line (ha)} / \text{Planted area (ha)} \times 100 = 50.25 \text{ ha} / 3408.93\text{ha} \times 100 = 1.47 \%$

=> 1.47% of each hectare have to be deducted as area used as fire-line

Conclusion of the audit team

Fire strips are estimated conservatively and deducted from the plantation area. The approach is conservative due the length of 6m fire lines is more than that of 9 m fire lines.

Ref 11b: 06-03_Kikonda - summary inventory + site index update 06112012_Nov_2012.xls

Work sheet "future co2 calculation" cells J2-J34. Request is closed.

Overall conclusion for CFS requirement 6.4:

The audit team reviewed the calculation and respective references. The calculation as presented in the PDD and the respective Excel file is in line with CFS requirement.

The amount of Emission Reductions stated in the CarbonFix internal "Climate Projects" system is however not in compliance with the actual calculations that were checked by TÜV SÜD (IRL 11, 33, 35). Considering that the figures and calculations in "Climate Projects" are not traceable, the audit team cannot confirm the figures that are provided by Climate projects (in particular the document "Management-Units_KFR_CFS.pdf" for this project).

Final Conclusion

- Accepted
- Accepted with FAR (...)
- Not accepted with NCR (...)

07 Project Emissions



1. In order to account for project emissions due to the use of fossil fuels within the project (e.g. through machines, flights, etc.), 0.5% of the future CO₂-fixation must be deducted.

Findings

The default figure of 0.5% reduction of the CO₂-fixation is stated to be used and considered in the calculations.

Ref. 11: Kikonda - summary inventory+site index update 12112008. Reduction used in table "future CO₂ fixation" cells R3-R17.

References (IRL): 11

CARs / FARs / NCRs

Corrective Action Request No 13

Calculations on emissions need to be updated in line with requests in section 6 (CAR 10-12)

Response by PP

Baseline		Leakage		Project emissions ¹				Net CO ₂ reduction	
	Σ		Σ	ME	BB	FU	Σ		Σ
45	45	9	9	0	4.50	0 kg N	4.5	0 (-59)	0 (-59)
0	45	0	9	0	0.00	0 kg N	4.6	13	0 (-46)
0	45	0	9	0	0.00	0 kg N	4.8	55	9
0	45	0	9	0	0.00	0 kg N	5.2	69	78
0	45	0	9	1	0.00	0 kg N	5.7	111	189
0	45	0	9	1	0.00	0 kg N	6.4	135	325
0	45	0	9	0	0.00	0 kg N	6.4	2	327
0	45	0	9	0	0.00	0 kg N	6.4	0	327

Project Emissions (ME = Management emissions [0.5% * CO₂ reduction]) are automatically deducted by the Climateproject webpage system

The parameters for the calculation have been adjusted and corrected accordingly to requests above.

Conclusion of the audit team

Ref. 33: 06-09_CO₂-Fixation_KFR_according_Adler_and_site_index_2012_Nov_2012.xls Reduction used in table "CO₂-Fixation per MU & ha & a" table 3.5 lines 180 ff. The calculations were checked and found correct.

The amount of Emission Reductions stated in the CarbonFix internal "Climate Projects" system is not in compliance with the actual calculations that were checked by TÜV SÜD. Considering that the figures and calculations in "Climate Projects" are not traceable, the audit team cannot confirm the figures that are provided by Climate projects (in particular the document "Management-Units_KFR_CFS.pdf" (Ref 35) for this project).

Final Conclusion

- Accepted
 Accepted with FAR (...)
 Not accepted with NCR (...)

07 Project Emissions



2. In case fertilizer is used, 0.005 tCO₂ per kg of nitrogen (N) must be deducted. Hereby, no differentiation is made between synthetic and organic fertilizer.

Findings

No fertilizer is foreseen to be used in the project. This was confirmed during interviews onsite and visit of the nursery.

CARs / FARs / NCRs

Final Conclusion

- Accepted
 Accepted with FAR (...)
 Not accepted with NCR (...)

3. In case the biomass of the baseline is burned on the field for the purpose of land preparation, an additional 10% of the baseline emissions must be accounted for. This is due to other greenhouse gases (N₂O and CH₄) that are released during the burning process.

Findings

It is indicated that on all MUs biomass is burned for site preparation. This is the standard procedure and this could be confirmed during onsite visit. 10% additional baseline emissions are accounted for that.

CARs / FARs / NCRs

See CAR 13: Calculations on emissions need to be updated in line with requests in section 6 (CAR 10-12)

Response by PP:

The information is included in the Climateprojects webpage. The 10% additional emission of the biomass burned is here deducted automatically by the system. All values have been checked and CARs have been considered for the calculation

Conclusion of the audit team

Ref 11b: Kikonda - summary inventory+site index update 12112008_Nov_2012_3.xls work sheet "future co2 fixation" column Y

Ref 33: CO2-Fixation_KFR_according_Alder_and_site_index_2012_Dec_2012.xls

Reduction used in table "CO2-Fixation per MU & ha & a" "table 3.5 lines 180 ff

4.5 tCO₂/ha (10% of 45 tCO₂ baseline emission) are deducted in the calculation.



07 Project Emissions

3. In case the biomass of the baseline is burned on the field for the purpose of land preparation, an additional 10% of the baseline emissions must be accounted for. This is due to other greenhouse gases (N₂O and CH₄) that are released during the burning process.

The total amount of expected emission reductions in both the old and the new MUs are calculated in Ref 33 sheet "CO2-Fixation per MU & ha & a":

Ex-ante estimated Emission Reduction over a 50 year crediting period for MUs 002 - 031:	t CO₂-e
Total Emission Reduction	888,033
Total Emission Reduction excluding the 30% CarbonFix risk buffer	621,623
Total CarbonFix risk buffer (30%)	266,410

The amount of Emission Reductions stated in the CarbonFix internal "Climate Projects" system is not in compliance with the actual calculations that were checked by TÜV SÜD. Considering that the figures and calculations in "Climate Projects" are not traceable, the audit team cannot confirm the figures that are provided by Climate projects (in particular the document "Management-Units_KFR_CFS.pdf" (Ref 35) for this project).

Figures in Climate Projects, which cannot be confirmed by TÜV SÜD are:

Ex-ante estimated total Emission Reduction over a 50 year crediting period: 902,946 t CO₂-e

Ex-ante estimated total Emission Reduction excluding the 30% CarbonFix risk buffer over a 50 year crediting period: 632,062 t CO₂-e

Estimated Total CarbonFix risk buffer (30%): 270,884 t CO₂-e

Final Conclusion

- Accepted
 Accepted with FAR (...)
 Not accepted with NCR (...)



1. The baseline is the 'woody biomass' and 'non-woody biomass' on the eligible planting area just before the planting start. The calculation can be done in two different ways:

- a. By executing field measurements. Here, the 'Forest Inventory' guideline shall be applied.
- b. By estimating the biomass in reference to similar areas
 - regional and national default values shall preferably be used
 - international default values can only be used if other values are not available

Findings

The PDD does not mention the structure required by the standard.

Option a) is indicated to be followed:

Woody	Non-Woody:
Wood density: 0.58	Wet-to-Dry ratio: 0.36
Biomass Expansion Factor: 1.4	Root-to-Shoot ratio: 0.48
Root-to-Shoot ratio: 0.48	Carbon fraction: 0.5
Carbon fraction: 0.5	C to CO ₂ -ration: 3.666
C to CO ₂ -ration: 3.666	

Key parameters used came from Ref 2 p.48 and p 49

Ref 2b: 02_CFS_KFR_PDD_2008, Page 47-50

The parameters were certified in Ref. 6: "Validation Report" Validation Protocol pp 15-16.

The baseline used in the calculation of the fixation is 2.6 tCO₂/ha.

References (IRL): 2b

CARs / FARs / NCRs

Corrective Action Request No 14

The input data used for the baseline calculations shall be sustained

Response by PP

The baseline for the calculation used, is the value given above and in Ref.2 :PDD_KFR_CFS_2008, page 48 and 49

The values which have been certified in 2008 of baseline and leakage were not correct (the value 45t and 9t were switched in the climateprojects system. This has now been corrected. This had an influence on the calculation of the "biomass burned" calculation.

The baseline mentioned above is an artifact within the inventory sheet, which is not used anymore and has therefore no influence on the calculation.

Conclusion of the audit team

New correct baseline value of 45 tCO₂/ha is used.

Ref 11b: Kikonda - summary inventory+site index update 12112008_Nov_2012_10.xls work sheet "future co2 fixation" column W

And

Ref 33: CO2-Fixation_KFR_ according_Alder_and_site_index_2012_V2_18_Dec_2012.xls

Reduction used in table "CO2-Fixation per MU & ha & a" "table 3.5 lines 180 ff, the request is closed

Final Conclusion

- Accepted
 Accepted with FAR (...)
 Not accepted with NCR (...)

9 Leakage



Leakage is caused by an increase of emissions outside of the project area as a result of the project activity. Leakage emissions can be caused due to a shift of the following activities:

- | | |
|----------------------|-------------------------|
| a. fuelwood use | b. charcoal burning |
| c. timber harvesting | d. agricultural farming |
| e. resettlement | f. livestock grazing |

Findings

Overview of the results of the leakage analysis is presented in the PDD. The information was reviewed by the audit team and confirmed to be correct.

Information regarding leakage was further confirmed through interviews with relevant stakeholders during the onsite visit.

Following parameters were used for Fuelwood use:

- Stem volume: 14.9 m³/ha
- Wood density: 0.58
- Biomass Expansion Factor: 1.4
- Root-to-Shoot ratio: - (no selected carbon pool)
- Carbon fraction: 0.5
- C to CO₂ -ration: 3.666

Following parameters were used for Charcoal burning

- Stem volume: 14.9 m³/ha
- Wood density: 0.58
- Biomass Expansion Factor: 1.4
- Root-to-Shoot ratio: - (no selected carbon pool)
- Carbon fraction: 0.5
- C to CO₂ -ratio: 3.667

The parameters were certified during the initial certification for the entire project area:

Ref. 02_CFS_KFR_PDD, Page 51-56

Ref. 6 : Validation Report, Validation Protocol p.16

References (IRL): 2, 6

CARs / FARs / NCRs

Final Conclusion

- Accepted
 Accepted with FAR (...)
 Not accepted with NCR (...)

**Capacities****Findings**

Project is FSC certified.

In line with the Carbon Fix procedures for combined certification, the section and requirements on “Capacities” do not need to be assessed, if a valid FSC certificate is provided.

During onsite visit a valid FSC certificate was provided (Ref. 28) and crosschecked on FSC webpage.

<http://info.fsc.org/PublicCertificateDetails?id=a0240000006tLs3AAE>

FSC License Code: FSC-C102912

Certificate Code: SGS-FM/COC-009362

References (IRL): 28

CARs / FARs / NCRs**Final Conclusion**

- Accepted
- Accepted with FAR (...)
- Not accepted with NCR (...)



1. Evidence must be given that the project developer has an uncontested legal land title of the project area, for a minimum period of the project's crediting period.

Findings

All new MUs are part of the already certified project area. The legal status of the project owner is not indicated.

Global Woods is Long-term leaseholder

Ref 2: 02_CFS_KFR_PDD, Page 67

Ref. 6 : Validation Report Validation Protocol p. 19-20.

Ref. 26 : Agreement to grow timber plantations in Kikonda forest reserve.

References (IRL): 2,6,26

CARs / FARs / NCRs

Corrective Action Request No 15

Indicate the legal status of the project owner and provide to the respective evidence to the audit team.

Response by PP

The document (02_CFS_PDD_KFR_CFS_2008, Page 67) confirms all relevant necessities, see also Ref. 'Kikonda - Secured land tenure - tree planting licence.pdf, The license has duration of 50 years, global-woods is the long-term leaseholder as indicated.

Conclusion of the audit team

Legal status is indicated and referenced (Ref. 2b and Ref 26). Evidence is provided that the project developer has an uncontested legal land title of the project area, for a minimum period of the project's crediting period.

Final Conclusion

- Accepted
- Accepted with FAR (...)
- Not accepted with NCR (...)



2. Evidence must be given that all necessary permits for the implementation and management of the project (planting permits, harvesting permits, infrastructures permits, etc.) are secured for a minimum period of the project's crediting period.

Findings

It is not indicated that the permissions are secured for the project lifetime.

CARs / FARs / NCRs

Corrective Action Request No 16

Confirm and sustain with evidence if all necessary permits for the implementation and management of the project are secured for a minimum period of the project's crediting period

Response by PP

The project owner has a contract with the Ugandan government which is confirming the securement of the project for its lifetime, see Ref. 'Kikonda - Secured land tenure - tree planting licence.pdf,

Conclusion of the audit team

Necessary permits for the implementation and management of the project were provided to the audit team. The audit team reviewed the documents and considers that the CFS requirements are met (Ref. 2b and Ref 26)

Final Conclusion

- Accepted
- Accepted with FAR (...)
- Not accepted with NCR (...)



3. On overview on the contact details of the project participants must be provided.

Findings

The contact details are included in the PDD:
Project developer (project owner), Contact person: Matthias Baldus
Owner of the CO₂-rights: global-woods AG
Owner of the land: State of Uganda
Owner of the timber: global-woods AG
Owner of other resources: State of Uganda
Project financier: global-woods AG

CARs / FARs / NCRs

Corrective Action Request No 17

Indicate a specific contact with "State of Uganda"

Response by PP

The responsible administrative organ within the Ugandan government for the Kikonda Forest Reserve is the National Forestry Authority's of Uganda NFA

Executive Director NFA
mail@nfa.org.ug
10/20 Spring Road, Nakawa
Kampala, Uganda

Conclusion of the audit team

Contact details for "State of Uganda" are provided. The audit team confirmed that the information are correct through document review of respective contracts and interviews during the onsite visit (see also initial certification report). Respective requirements of CFS are met.

Final Conclusion

- Accepted
- Accepted with FAR (...)
- Not accepted with NCR (...)



11 Land & CO₂ Tenure

4. Evidence must be given that the project developer is the
- Owner of the CO₂-rights AND
 - Owner of the land AND
 - Owner of the timber AND
 - Owner of other resources
 - Project financier

If the project developer is not all of the above, evidence must be given that the respective participant agrees with the expected project activity for the minimum period of the project's crediting period.

Findings

In Chapter 11.3 it is indicated that global woods is owner of a. c. and is e. and the State of Uganda is owner of the land and of other resources.

Reference is given to the PDD 2008 (Ref 2 p.67) which is only indirectly sustaining the statements with the evidence.

References (IRL): 2

CARs / FARs / NCRs

Corrective Action Request No 18

The PP shall provide evidence for the ownership, or present respective contracts as requested by CFS.

Response by PP

The CO₂ right are generated through tree planting. Since global-woods is the legal owner of the planted trees within the Kikonda Forest Reserve, (see Ref. Ref. 'Kikonda - Secured land tenure - tree planting licence.pdf) global-woods is also owner of the carbon sequestered by its trees

Conclusion of the audit team

Evidence (Ref 26) is provided to sustain ownership situation. The audit team confirmed that the information are correct through document review of respective contracts and interviews during the onsite visit (see also initial certification report). Respective requirements of CFS are met.

Final Conclusion

- Accepted
 Accepted with FAR (...)
 Not accepted with NCR (...)



5. In case the owner of CO₂-rights is a group of multiple individuals, authorization for the issuance and assignment of the CO₂-certificates must be given to the project developer with a written approval.

Findings

The criteria is not applicable, as Global Woods is the only owner of the CO₂-rights (IRL 26)

CARs / FARs / NCRs

Final Conclusion

- Accepted
- Accepted with FAR (...)
- Not accepted with NCR (...)



001 Documentation Format

1. Templates shall be filled out with a green colour and the font type Calibri, size 10.
2. Red coloured comments in the template shall be deleted before document submission.
3. Maps shall include the following information: Name of the project, Direction of North, ID of the project, Used GPS coordinate system (e.g. WGS 84), Legend, GPS grid, Printing date, Infrastructure (roads, houses, etc.) and rivers, Scale, Information on the satellite or aerial picture used (date, resolutions, data source)
4. Figures above one thousand shall be formatted with a space (1 000 000), whereby decimals will be separated by a point (1.35).
5. Pictures, graphs and tables within project documents shall be clearly marked with a unique ID.
6. Supporting documents must be numbered according to the format outlined in the CFS. In the project documents, ONLY the reference number (01-02) shall be stated, together with the exact location of the referred information.
7. The project documents and supporting documents must be submitted in English, OR a language which has been agreed upon by the project developer, the technical board of CarbonFix and the certification body that executes the certification process.
8. The ClimateProjects platform must be used to submit the project information for any pre-validation and certification process. All project information must be made publically available through the ClimateProjects system, except for confidential information.

Findings

(include at least one sentence per requirement above)

Ad 1.: Templates are filled as required

Ad 2.: Not all red colored comments are deleted

Ad 3.: Maps were provided during onsite visit containing all information as required by the standard.

Ad 4.: The format of figures are not in line with the requirements

Ad 5.: There is only one picture (satellite image) in the PDD, no graphs. Tables don't have an ID.

Ad 6.: The supporting documents are not according the CFS.

Ad 7.: The documents are all provided in English language.

Ad 8.: Project information is provided on the ClimateProjects platform

CARs / FARs / NCRs

Corrective Action Request No 19

Follow the formal requirements of CFS:

Ad 4.: Indicate the format of figures in line with the requirements

Ad 5.: Mark pictures and tables with an ID as required by the standard.

Ad 6.: Number the supporting documents according the CFS.

Response by PP

- Ad 4.)The figures within the PDD are corrected to be in line with the requirements
- Ad 5.)The Pictures and tables received an ID as required
- Ad 6.) The supporting documents received their ID according to CFS

Conclusion of the audit team

Format requirements are fulfilled (Ref 3b).

Final Conclusion

Accepted



010 Avoidance of Double Counting

1. In case a project is located in a district or country that is part of a national or pan-national scheme that must report its forest area, the project developer can only assign its CO₂-certificates to a CO₂-buyer using minimum one of the following options:

1a. The CO₂-buyer explicitly agrees in purchase agreements to the statement as detailed in the CFS

1b. The respective agency of the projects host-country gives a statement as detailed in the CFS

1c. The project developer retires

- one additional CO₂-certificate from another project certified according to the Carbon Fix Standard, OR
- one additional Gold Standard certificate

for every CO₂-certificate assigned to a CO₂-buyer.

Hereby, the additional retired certificate must carry the ID of the assigned CFS CO₂-certificate.

Findings

Not applicable: Uganda is not part of a national or pan-national scheme that must report its forest area for the aim of carbon accounting at the time of the certification

CARs / FARs / NCRs

-

Final Conclusion

- Accepted
 Accepted with FAR (...)
 Not accepted with NCR (...)

List of Reference



Industrie Service

Annex 2: List of References

Ref. No.	Author/Editor/ Issuer	Title, Type of Document	Date	
1.	TÜV SÜD	Interview during field visit	03 Sep 2012 – 08 Sep 212	
		Otim Moses		Senior Forester Global Woods
		Blessing Mutambukye		Forester Global Woods
		Asiimwe Johs Paul		Forester Global Woods
		Ariho Alex Nelson		Forester Global Woods
		Francois Jacobs	Estate Manager Global Woods	
2.	global-woods AG	2a: PDD_KFR_CFS, pdf PDD 2008 2b: PDD_KFR_CFS_2008.pdf, renamed, unchanged	25 Nov 2008	
3.	global-woods AG	3a: PDD_KFR_CFS PDD pdf 2012 3b: PDD_KFR_CFS_2012_18042013.pdf final version	18 Apr 2013	
4.	CarbonFix e.V.	CarbonFix Standard Version 02		
5.	CarbonFix e.V.	CarbonFix Standard Version 3.2	Dec 2011	
6.	TÜV SÜD, 2009	Certification-Report_KFR_CFS pdf, Validation Report	2009	
7.	global-woods AG	Certification-Report_KFR_CFS 2009 pdf, Certification Report	2009	
8.	UNFCCC	LULUCF good practice Anx_3A_1_Data_Tables	2003	
9.	global-woods AG	06-01_Inventory report-2011_Aug 2011.pdf	Aug 2011	
10.	Alder et al. 2003	06-02_Kikonda-Alder-model_May 2003.pdf, Yields of Eucalyptus and Carribean Pine in Uganda, Denis Alder et. Al. 2003	2003	

List of Reference



Industrie Service

Ref. No.	Author/Editor/ Issuer	Title, Type of Document	Date
11.	global-woods AG	06-03_Kikonda - summary inventory+site index update 25032012.xls 11b 06-03_Kikonda - summary inventory+site index update 06112012_Nov_2012_10.xls	Nov 2012
12.	global-woods AG	06-04_Calculation of Eligible Area 2012.xls	2012
13.	global-woods AG	06-05_SOP - Inventory 7.01.11_BM	Jan 2011
14.	global-woods AG	06-06_Inventory results_200811_BM, zip-file	Aug 2011
15.	global-woods AG	06-07_Calculation Precision level Inventory 2011 KFR 15b. 06-07_KFR_Precision level_of_Inventory 2011_CFS_2012_Nov_2012_TD	Nov 2012
16.	global-woods AG	Eligible areas for CFS 2012 shape file	2012
17.	global-woods AG	Reserve Boundaries shape file	2012
18.	global-woods AG	KML Dateien der neuen MU 2012 für CFS	2012
19.	global-woods AG	PSPs as of 15082011, shape file of sample plots	2012
20.	Alder	yield model xls, yield model Carribean Pine in Uganda	2012
21.	Paul Jacovelly	Kikonda - planting trees law not enforced. Paul Jacovelly, Chief Technical Advisor of the National Forest Authority of Uganda (NFA) (16.09.2004, Kampala)	Sep 2004
22.	global-woods AG	Initial Management Plan for IUE Kikonda Forest Reserve, 1999	199
23.	Matthias Baur 2007	Soil description as the basis for soil classification, soil and site assessment and suitability evaluation for planting Pinus Caribaea and/or other species at the Kikonda Forest Reserve in the north-west of Uganda. August 2007, BSc thesis Matthias Baur	Aug 2007
24.	GAF Munich 2006	GAF_KFR_Eligibiliy.pdf, Summary of satellite image classification project, GMES Service Element Forest Monitoring (GSE FM), 4 Oct 2005-3 Oct 2006, carried out by GAF Munich.	Oct 2006
25.	global-woods AG	Management Plan for The Kikonda Forest Reserve for the Period 2007-2012, approved by National Forest Authority.	2012

List of Reference



Industrie Service

Ref. No.	Author/Editor/ Issuer	Title, Type of Document	Date
26.	The Republic of Uganda	'Kikonda - Secured land tenure - tree planting licence.pdf, Agreement to grow timber plantations in Kikonda forest reserve.	
27.	global-woods AG	SOP «Site Preparation» rev. 08.03.2011	Mar 2011
28.	FSC	Certificate of FSC : FSC License Code: FSC-C102912, Certificate Code: SGS-FM/COC-009362 http://info.fsc.org/PublicCertificateDetails?id=a0240000006tLs3AAE	Apr 2012
29.	global-woods AG	Planted_area_2002-2008 shape file	2008
30.	global-woods AG	Planted_area_2009-2012 shape file	2012
31.	global-woods AG	Planted Area_2002-2008_Eligible_for_CFS shape file	2008
32.	global-woods AG	Planted Area_2009-2012_Eligible_for_CFS shape file	2012
33.	global-woods AG	06-09_CO2-Fixation_KFR_ according_Adler_and_site_index_2012_Nov_2012 Excel	Nov 2012
34.	global-woods AG	CFS_Kikonda_Inconsistencies_17.04.13. Word-file, Clarifications on areas	Apr 2013
35.	ClimateProjects/global-woods AG	Management-Unit_KFR_CFS.pdf	18 Apr 2013



Industrie Service

Choose certainty.
Add value.

Monitoring Certification Report

of the Registered CarbonFix Project
“KIKONDA FOREST RESERVE (KFR)”
(Management Units 002-016)

CarbonFix reference number: UG-KFR

Monitoring Period 1: 01/10/2002 to 01/11/2012

REPORT NO. 600501099

18 June 2013

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



Report No.	Date of first issue	Version No.:	Revision date
600501099	31 Jan 2013	05	18 June 2013
Subject:	Monitoring Certification (Verification) under the CarbonFix Standard v.3.2		
Executing Operational Unit:			
TÜV SÜD Industrie Service GmbH, Carbon Management Service Westendstrasse 199 - 80686 Munich, Federal Republic of Germany			
Project Participant (client):			
global-woods AG, Stohren 5, 79244 Münstertal, Germany			
Registration number / Project Title		Project UG-KFR: "Kikonda Forest Reserve"	
Monitoring period:		01 Oct 2002 to 01 Nov 2012	
First PDD / Monitoring Report (date)		July 2012	
Final PDD / Monitoring Report (date)		18 Apr 2013	
Summary:			
<p>TÜV SÜD Industrie Service GmbH has performed the Monitoring Certification (Verification) of the Management Units 002-016 of the registered CFS project: "Kikonda Forest Reserve".</p> <p>The Management Units 002-016 consist of the reforestation with pine in the Kiboga district of Uganda. The MUs subject to the Monitoring Certification include MUs 002 - 016, covering 907 ha of planted area (i.e. no fire lines). With fire lines included, the area of the MUs cover 921 ha.</p> <p>The management of global-woods AG is responsible for the preparation of the GHG emissions data and the reported GHG emission reductions.</p> <p>A document review, followed by a site visit was conducted to verify the information submitted by the project participant regarding the present verification period. Based on the assessment carried out, the verifier confirms the following:</p> <ul style="list-style-type: none"> • the project is implemented as planned and described in the CFS registered project design document (PDD); • the actual monitoring complies with the CarbonFix Standard version 3.2 and the CFS Forest Inventory Guideline. • The monitoring system and equipment used for measuring GHG removals and emission reductions are reliably and appropriately. The project is generating GHG removals as a CFS project. • that the GHG removals and emission are calculated without material misstatements. <p>TÜV SÜD's opinion refers to the project's GHG removals and emissions reported, both determined using the valid and registered project's baseline, its monitoring plan and its associated documents.</p> <p>Based on the information the audit team has seen and evaluated, we confirm that the implementation of the project resulted in 15,847 t CO₂-e of GHG removals ("ex-post certificates") during the verification period from 01 Oct 2002 to 01 Nov 2012.</p>			
Assessment Team Leader: Sebastian Hetsch		Technical Review: Martin Hammer, Martin Opitz	
Verification Team Members: Hubertus Schmidtke		Certification Body responsible: Elena Schmidt	

Abbreviations

CAR	Corrective Action Request
CB	Certification Body
CDM	Clean Development Mechanism
CFS	CarbonFix Standard
CR	Clarification Request
DOE	Designated Operational Entity
EIA	Environmental Impact Assessment
FAR	Forward Action Request
FSC	Forest Stewardship Council
GHG	Greenhouse Gas(es)
GIS	Geographic Information System
GPG	Good Practice Guidance
GPS	Global Positioning System
IPCC	Intergovernmental Panel on Climate Change
IRL	Information Reference List
IRR	Internal Rate of Return
LULUCF	Land-Use, Land-Use Change and Forestry
MAI	Mean Annual Increment
MP	Monitoring Plan
MU	Management Unit
NCA	Nature Conservation Area
NGO	Non Governmental Organisation
PDD	Project Design Document
PP	Project Participant
TÜV SÜD	TÜV SÜD Industrie Service GmbH
UNFCCC	United Nations Framework Convention on Climate Change



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Annex 1: Certification Findings

Annex 2: List of References

1 Introduction

1.1 Objective

The global woods AG has commissioned an independent verification (Monitoring Certification) by TÜV SÜD Industrie Service GmbH (TÜV SÜD) of its registered CFS project: “Kikonda Forest Reserve”.

The objective of the verification work is to comply with the requirements of the CarbonFix Standard. TÜV SÜD has therefore assessed if:

- the project activity has been implemented as per the registered PDD “Kikonda Forest Reserve”, and that all physical features (newly established forest areas and required monitoring equipment/sample plots) of the project are in place,
- the published MR and other supporting documents provided are complete, verifiable and in accordance with applicable CFS requirements,
- the actual monitoring design and procedures comply with the monitoring and forestry inventory requirement of the CFS.

1.2 Scope

The verification scope encompasses an independent and objective review and ex-post determination of the monitored GHG removals and emissions by the Certifier. The verification is based on the submitted monitoring report, the validated project design documents including its monitoring plan and validation report, the applied monitoring methodology, relevant decisions, clarifications and guidance from the CFS and any other information and references relevant to the project activity’s resulting GHG removals. These documents are reviewed against the requirements of CFS and related rules and guidance.

Based on the requirements of CFS, TÜV SÜD has applied a rule-based approach for the verification of the project. The principles of accuracy, completeness, relevance, reliability and credibility were combined with a conservative approach to establish a traceable and transparent verification opinion.

The verification considers both quantitative and qualitative information on GHG removals and emission reductions.

The verification is not meant to provide any consultancy towards the client. However, stated requests for clarifications, corrective and/or forward actions may provide input for improvement of the monitoring activities.

1.3 Level of assurance and Materiality

The certification report expresses a conclusion with a limited level of assurance about whether the reported net anthropogenic GHG removals data is free from material misstatements. TÜV SÜD applied a materiality threshold with respect to omission or misstatements concerning reported quantities.

The audit team points out that based on the process and procedures conducted as part of this certification; there was no evidence that indicates that this GHG assertion

- is not materially correct and is not a fair representation of the GHG data and information presented, and
- was not prepared in accordance with the CarbonFix Standard.



2 Methodology

2.1 Verification Process

The verification process is based on the approach depicted in the CFS. Standard auditing techniques have been adopted for the verification process. The verification team performs first a desk review, followed by an on-site visit, which results in the formation of a protocol that includes all the findings. The next step involves the evaluation of the findings through direct communication with the PPs and then finally the preparation of the verification report. This verification report and other supporting documents then undergo an internal quality control by the CB “climate and energy” before submission to the CFS.

2.2 Appointment of the Assessment Team

According to the technical scopes and experiences in the sectoral or national business environment, TÜV SÜD has composed a project team in accordance with the appointment rules of the TÜV SÜD certification body “climate and energy”.

The composition of an assessment team has to be approved by the Certification Body (CB) to assure that the required skills are covered by the team. The CB TÜV SÜD operates the following qualification levels for team members that are assigned by formal appointment rules:

- Assessment Team Leader (ATL);
- Validator / Verifier (V);
- Trainee (T);
- Technical Experts (TE).

It is required that the sectoral scope(s) and the technical area(s) linked to the methodology and project have to be covered by the assessment team.

Assessment Team:

Name	Qualification	Coverage of scope	Coverage of technical area	Coverage of financial aspect	Host country experience
Sebastian Hetsch	ATL	☑	☑ (14.1)	☑	☑
Hubertus Schmidtke <i>(auditor onsite)</i>	V	☑	☑ (14.1)		☑

Technical Reviewer:

- Martin Hammer (Technical Review Leader)
- Martin Opitz (coverage of respective TA 14.1)

2.3 Review of Documents

The first PDD for the new MUs was submitted to the audit team in July 2012. This PDD version and additional background documents related to the project design and baseline were reviewed to verify the correctness, credibility, and interpretation of the presented information. As a further step of the certification process, information provided by the PP was cross-checked with information from other sources (if available). A complete list of all documents and proofs reviewed is attached as Annex 2 to this report.

2.4 On-site Assessment and follow-up Interviews

Between 04 and 09 Sep 2012, TÜV SÜD performed a physical site inspection and on-site interviews with project stakeholders to:

- confirm the implementation of the project,
- review the data flow for generating, aggregating and reporting the monitoring parameters,
- confirm the correct implementation of procedures for operations and data collection,
- cross-check the information provided in the MR documentation with other sources,
- check the monitoring equipment against the requirements of the PDD and the CFS,
- review the calculations and assumptions used to obtain the GHG data and ER,
- identify if the quality control and quality assurance procedures are in place to prevent or correct errors or omissions in the reported parameters.

A list of the persons interviewed during this verification activity is included in annex 2.

2.5 Resolution of Clarification and Corrective Action Requests

The objective of this phase of the verification process is to resolve any outstanding issues which require clarification for TÜV SÜD's positive conclusion of the achieved GHG removals and emission reduction. The findings raised as Forward Action Requests (FARs) (if any) indicated in previous reports (validation/verification) were discussed during this phase and, issues raised in the FARs were resolved, during communications between the PP and TÜV SÜD.

Concerns raised in the desk review, the on-site audit assessments and the follow up interviews and the responses provided for the raised concerns are documented in Annex 1 (verification protocol) to guarantee the transparency of the verification process.

A Corrective Action Request is raised where TÜV SÜD identifies:

- non-conformities in monitoring and/or reporting with the monitoring plan and/or methodology;
- that the evidence provided is not sufficient to prove conformity;
- mistakes in assumptions, data or calculations that impair the ER;
- FARs stated during validation that are not solved until the on-site visit.

A Clarification Request is raised where TÜV SÜD does not have enough information or the information is not clear in order to confirm a statement or data. A Forward Action Request is raised where TÜV SÜD identifies that monitoring and/or reporting require special attention or adjustments for the next verification period. Information or clarifications provided as a response to a CAR, CL or FAR could also lead to a new request.

2.6 Internal Quality Control

As a final step of verification, the final documentation including the verification report and annexes have to undergo an internal quality control by the Certification Body (CB) "climate and energy", i.e. each report has to be finally approved either by the Head of the CB or the Deputy. In case one of these two persons is part of the assessment team, the approval can only be given by the person who is not a part of the assessment team. If the documents have been satisfactorily approved, the Request for Issuance is submitted to the CFS along with the relevant documents.

3 Verification Results

The verification findings and results are detailed in Annex 1 of this report.

Each CFS criterion was assessed, as well as the correct implementation of the Monitoring Plan as per the registered PDD, and the results of the monitoring



Industrie Service

4 Certification Conclusion & Opinion

TÜV SÜD performed a Monitoring Certification of the MUs 002 - 016 of the registered CarbonFix project activity "Kikonda Forest Reserve". The verification is based on the currently valid version 3.2 of the CarbonFix Standard.

The management global woods AG is responsible for the preparation of the GHG removals and emissions data and the reported GHG emission reductions on the basis set out within the project's registered PDD.

The verifier confirms that:

- the project is implemented as planned and described in the project design document approved and registered by the CFS;
- the monitoring essential for measuring GHG removals by sinks and emission reduction is appropriate and in accordance with the CFS requirements and the CFS "Forest Inventory Guideline";
- the GHG removals and emissions are calculated without material misstatements;

Our opinion is based on the project's GHG removals and emissions reported, which have been both determined through the valid and registered project's baseline, its monitoring plan and its associated documents.

Based on the information we have seen and evaluated, we confirm the following statement:

Reporting period: From 01 Oct 2002 to 01 Nov 2012

Verified GHG removals and emissions in the above reporting period:

CO ₂ fixation:	69,253 t CO _{2e}
Baseline GHG removals:	40,815 t CO _{2e}
Project emissions:	4,428 t CO _{2e}
Leakage emission:	8,163 t CO _{2e}
Net CO ₂ fixation:	15,847 t CO_{2e}

The amount of Emission Reductions stated in the CarbonFix internal "Climate Projects" system is not in accordance with the actual calculations that were checked by TÜV SÜD. Considering that the figures and calculations in "Climate Projects" are not traceable, the audit team cannot confirm the figures that are provided by Climate projects (in particular the document "Management-Units_KFR_CFS.pdf" for this project).

Munich, 18 June 2013

Elena Schmidt

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

Munich, 18 June 2013

Sebastian Hetsch

Assessment Team Leader
TÜV SÜD Industrie Service GmbH



Annex 1: Certification Findings

1. A description of the historical and the current situation of the project area must be given for the last 50 years. This description must include the development of its socioeconomic situation, its changes in land-uses and changes of property rights.

Findings

The historical and the current situation of the project area are described (directly taken from the PDD 2008).

Naming and numbering of main reference are not consistent

Reference is indicated as REF 2: 02_CFS_KFR_PDD, Page 7

The related document is the PDD from 2008 (PDD_KFR_CFS.pdf)

The new PDD from 2012 has the same file name

References (IRL): 2

CARs / FARs / NCRs

Corrective Action Request No 1

Provide consistency in reference file naming and numbering of pages throughout the whole document.

Response by PP:

The PDD of the first certification in 2008 has been numbered and renamed: "PDD_KFR_CFS_2008.pdf"

The new PDD of the current certification 2012 has been reassembled, renumbered and renamed: "PDD_CFS_KFR_2012.pdf"

Conclusion by the audit team

File names changed only. New Ref 2b: PDD_KFR_CFS_2008.pdf, new Ref 3b: PDD_CFS_KFR_2012_30112012.pdf.

Consistency through the document is provided. Request closed.

A description of the historical and current situation of the project area is included in the PDD, including the socio-economic situation, land-use and property rights. The audit team reviewed the information and cross-checked it with references and confirms compliance with the standard requirements.

Final Conclusion

- Accepted
 Accepted with FAR (01-01 ID of the FAR)
 Not accepted with NCR (01-01 ID of the NCR)



Preconditions

01 Eligibility

2. Planting area is ONLY eligible, if the land:

- a. is planted with trees during the initial certification AND
- b. is not a forest at the date of the project start AND
- c. will result in the creation of a forest AND
- d. has not been a forest for at least 10 years prior to the planting start OR has been a forest in the last 10 years prior to the planting start, but evidence is given that absolutely no relation between the project participants and the cause of deforestation exists (e.g. that the forest destruction was caused by force majeure)

Criterion 2d. must be proven by the interpretation of satellite images, aerial photographs, official maps or land-use records.

Findings

Ad a.: Document review (Ref. 7 Certification report 2009) and field visit showed that the trees were planted within the initial certification period. The numbering of the "old" management units of 921 ha of the Certification Report 2009 has changes compared with the new one

Ad b.: Eligibility related with non-forest status 10 years before planting start was described in the initial PDD of 2008 and there sustained with evidence of satellite image interpretation. The non eligible areas are delineated and provided as shape files (Ref. 16).

Ad c.: Through field visit it can be confirmed that all new MU's are planted with trees and will result in a forest.

Ad d.: No statement is given concerning conditions of 01 Eligibility d.

References (IRL): 7, 16**CARs / FARs / NCRs****Corrective Action Request No 2**

Ad a.: Provide consistency in numbering the MU's

Ad c.: Provide statement on creation of forest

Ad d.: Provide statement on non-forest status of the project plantation area.

Response by PP:

Ad a.: Provide consistency in numbering the MU's

The table below has been copied out of the "Certification_Report_KFR_CFS_2009.pdf"

The highlighted fields and letters/numbers have been added for clarification

Both numbering systems are used for the CO₂-Fixation-calculation

The identification system Management Unite (MU ID) is used by the CFS standard, the planting unit ID (i.e. 0402) is used by global-woods for the internal identification

Ad c.: Provide statement on creation of forest

Over 1000 seedlings are planted on each hectare. The annual inventories proof that a dense forest is developing with an Mean Annual Increment (MAI) of over 25 m³/ha. With this constant monitoring, a first class forest management and safety measures like fire fighting teams, all necessary means are in place that a nice even age forest is developing on the planted areas.

Ad d.: Provide statement on non-forest status of the project plantation area.

For the assessment of historical and existing land cover, satellite images of the years 1990, 1995 and 2001 were used since other sources such as forest and land-use inventories were not available.

The project takes place in the 'Kikonda Forest Reserve'. Forest Reserves were established by the government in all parts of the country during the 1960s in areas which were not forested yet or not



Preconditions

01 Eligibility

2. Planting area is ONLY eligible, if the land:

- a. is planted with trees during the initial certification AND
- b. is not a forest at the date of the project start AND
- c. will result in the creation of a forest AND
- d. has not been a forest for at least 10 years prior to the planting start OR has been a forest in the last 10 years prior to the planting start, but evidence is given that absolutely no relation between the project participants and the cause of deforestation exists (e.g. that the forest destruction was caused by force majeure)

Criterion 2d. must be proven by the interpretation of satellite images, aerial photographs, official maps or land-use records.

any more. The satellite images and the funding cause are proof that the KFR has not been deforested for the purpose of establishing an afforestation.

Conclusion by the audit team

Ad a.: The numbering of the MU is explained and now consistent throughout the new Project Document REF. 3b

Ad c.: A statement on the creation of forest is provided in Ref 3b as required.

Ad d.: A statement on the non-forest of the project plantation area is now provided in Ref 3b and referred to Ref. 26.

The descriptions/statements provided in the PDD were confirmed during onsite.

The audit team confirms that the new MUs comply with the eligibility criteria as set out by CFS 3.2: trees are planted, the area was not forest at project start and also no forest 10 years prior to the planting start

Final Conclusion

- Accepted
 Accepted with FAR (...)
 Not accepted with NCR (...)



Preconditions

01 Eligibility

3. Planting area is NOT eligible, if the land:

- a. was deforested and thereafter replanted in order to generate CO2-certificates OR
- b. is wetland OR
- c. is situated on ground that is permafrost OR
- d. is agriculture farming land and threatens the food security of the local population through the conversion to forest.

Findings

Ad a), b), c), d) no statement is provided in the PDD, but reference to the PDD 2008 is provided.

The information was confirmed by the audit team already in the initial certification report. Main basis for the assessment was a remote sensing analysis (IRL 24)

Ad a): Ref 2: 02_CFS_KFR_PDD, Page 6

Ad b): Ref 2: 02_CFS_KFR_PDD, Page 1-5

Ad d): Ref 2: 02_CFS_KFR_PDD, Page 6

References (IRL): 2, 24

CARs / FARs / NCRs**Corrective Action Request No 3**

The PP shall provide information on eligibility as required by the standard, whether the land:

- a. was deforested and thereafter replanted in order to generate CO2-certificates OR
- b. is wetland OR
- c. is situated on ground that is permafrost OR
- d. is agriculture farming land and threatens the food security of the local population through the conversion to forest.

Response by PP:

a) Planting area is NOT eligible, if the land was deforested and thereafter replanted in order to generate CO2-certificates

- As proven by the satellite picture analysis the project area has been deforested long time before the project manager (the company global-woods) started its activities in Uganda.
- There is no relation between the project manager and the people causing the deforestation until the project started in 2002.

b) Planting area is NOT eligible, if the land, is wetland

- By the means of satellite images and ArcGis, wetlands and still forested patches within the Kikonda Forest Reserve have been identified. Clipping these non eligible area with the total area of the reserve leaves a map showing only the eligible areas of the reserve.

c) Planting area is NOT eligible, if it is situated on ground that is permafrost

- Permafrost or cryotic soil is soil at or below the freezing point of water 0 °C for two or more years. Most permafrost is located in high latitudes (i.e. land close to the North and South poles).
- Alpine permafrost may also exist at high altitudes in much lower latitudes.
- Neither high latitudes nor high altitudes are at the KFR. Temperatures hardly ever reach 0°C, so there is no permafrost within the area of the reserve.

d) Planting area is NOT eligible, if it is agriculture farming land and threatens the food security of the local population through the conversion to forest.

- As demonstrated by the analysis of the satellite pictures there was nearly no agricultural area (0.01 ha) for food production (crop land) within the project area at the project start. Since the project area is a forest reserve set aside for timber production only by the Ugandan state, food production would be illegal.



Preconditions

01 Eligibility

3. Planting area is NOT eligible, if the land:

- a. was deforested and thereafter replanted in order to generate CO2-certificates OR
- b. is wetland OR
- c. is situated on ground that is permafrost OR
- d. is agriculture farming land and threatens the food security of the local population through the conversion to forest.

Conclusion of the audit team

Information regarding the eligibility of the new MUs are provided in the PDD. The audit team cross-checked the information by reviewing respective information, in particular the remote sensing analysis (see also initial certification) and during physical observation of the audit team.

It is confirmed that the land

- a. was not deforested and thereafter replanted in order to generate CO2-certificates (Ref 24)
- b. is not wetland (Ref 24)
- c. is not situated on ground that is permafrost (there is obviously no permafrost in the tropics on the local elevations)
- d. is not agriculture farming land and threatens the food security of the local population through the conversion to forest and sustained with Ref 24.

The descriptions/statements provided in the PDD were confirmed during onsite. Request is closed.

Final Conclusion

- Accepted
- Accepted with FAR (...)
- Not accepted with NCR (...)



Preconditions

01 Eligibility

4. Evidence must be given, that in case any agricultural, agroforestry or silvopasture activities are taking place on the planting area, they contribute to the aim of creating a forest.

Findings

Within the project, sheep are being used to maintain the grass between the young trees. The animals are guarded by staff of the project.

Ref 2b: Page 6.

During field visit interviewed staff informed that the use of sheep to suppress grass vegetation was given up. The sheep were owned by the project and guarded by project staff. The problems with diseases of the sheep, and the costs made the management change its mind. The grass vegetation is cut manually, as observed during field visit.

References (IRL): 2b

CARs / FARs / NCRs**Final Conclusion**

- Accepted
 Accepted with FAR (...)
 Not accepted with NCR (...)

5. Evidence must be given that project activities will NOT lead to a long-term increase of greenhouse gas emissions in the carbon pool 'soil' on the project area.

Findings

Irrigation, drainage and ploughing are not practiced in the project area. This was confirmed during field visit.

Planting operations are described to be limited to pits of 30 cm depth and width.

Through field visit it can be confirmed that the planting operations are limited to a small planting hole.

Forest operations are indicated to be strictly limited.

Field visit showed that up to now no large scale harvest activities have been conducted. Forest operations like weeding and pruning are done manually.

References (IRL): 2b

CARs / FARs / NCRs

- Accepted
 Accepted with FAR (...)
 Not accepted with NCR (...)



Preconditions

01 Eligibility

6. If litter (leaves and small branches) is extracted from the eligible planting area, it must be limited to the extent of not harming the nutrient balance of the soil.

Findings

According to the PDD no litter (leaves and small branches) is extracted. The audit team confirmed this management practice during the field visit of the project area.

References (IRL): 2b**CARs / FARs / NCRs****Final Conclusion**

- Accepted
- Accepted with FAR (...)
- Not accepted with NCR (...)



02 Additionality

1. Evidence must be given that the project is not business as usual. Therefore, the additionality analysis must be executed according to the latest version A/R CDM 'Combined tool to identify the baseline scenario and demonstrate additionality in A/R CDM project activities'.

Findings

At the initial start of the project, it was foreseen to include all eligible planting area in the Kikonda Forest Reserve as part of the carbon projects. Therefore, the reasoning to sustain the additionality of the project already covered the entire eligible planting area of the Kikonda Forest Reserve. Respective explanation is provided in the initial PDD and the validation report by TÜV SÜD.

The audit team confirms that no substantial changes have occurred in regards to additionality. Therefore, the new MUs are also considered additional in line with the current CFS requirements

Ref 7: Certification Report 2009, Ref 2b: : PDD_KFR_CFS_2008.pdf, Page 9-13

References (IRL): 2b, 7

CARs / FARs / NCRs

Final Conclusion

- Accepted
- Accepted with FAR (...)
- Not accepted with NCR (...)



02 Additionality

2. Evidence must be given that the most likely without-project-scenario would not lead to an increase of 'woody biomass' on the eligible planting area. If this is not the case, the baseline must refer to the biomass that would have been on the area in the long-term.

Findings

At the initial start of the project, it was foreseen to include all eligible planting area in the Kikonda Forest Reserve as part of the carbon projects. Therefore, the reasoning to sustain the additionality of the project already covered the entire eligible planting area of the Kikonda Forest Reserve. Respective explanation is provided in the initial PDD and the validation report by TÜV SÜD. The audit team confirms that no substantial changes have occurred in regards to additionality. Therefore, the new MUs are also considered additional in line with the current CFS requirements

The statement by Paul Jacovelly, Chief Technical Advisor of the National Forest Authority of Uganda (NFA) (16.09.2004, Kampala) describes clearly the ongoing degradation of the forest reserves due to encroachment through cattle grazing.

Ref 21: Kikonda - planting trees law not enforced. It is sustained that there is degradation and no increase of woody biomass in the without project scenario.

Ref 2: PDD_KFR_CFS_2008.pdf, Page 13. Ref 7: Certification Report 2009.

This was sustained during onsite visit. The degradation of the vegetation was obvious (no high trees left).

References (IRL): 2, 7

CARs / FARs / NCRs

Final Conclusion

- Accepted
- Accepted with FAR (...)
- Not accepted with NCR (...)



02 Additionality

3. Evidence must be given that the project contributes to a more sustainable development than the most likely without-project scenario, short-, mid- and long-term.

Findings

Baseline and project case are described for short, mid and long term. It is described that unsustainable production of charcoal and cattle grazing is being stopped and on the other hand on the long run up to 600 people will be employed.

Ongoing charcoal production and cattle grazing outside the project area with ongoing degradation and non-existence of these activities on the project area could be observed during onsite visit.

According to clarification request ID 026 from the CFS this criteria is met, if the requirements of the chapters "04 Environmental Aspects" and "05 Socio-Economic Aspects" are met.

Since the project and in particular the new MUs comply with the requirements of "04 Environmental Aspects" and "05 Socio-Economic Aspects", this requirement is also met.

References (IRL): 2, 2b

CARs / FARs / NCRs

Final Conclusion

- Accepted
- Accepted with FAR (...)
- Not accepted with NCR (...)



1. A description of the project's general forest management objectives must be given.

Findings

The general description of the project's general forest management objectives is included in the PDD:

- Sustainable sequestration of CO₂ with the trees.
- The production of wood for the national markets of timber and energy wood.
- The conservation of biodiversity.
- Improving the economic situation of the surrounding villages.

The audit team confirms compliance with the requirement

Ref 2: : PDD_KFR_CFS_2008.pdf, Page 15

References (IRL): 2

CARs / FARs / NCRs

Final Conclusion

- Accepted
 Accepted with FAR (...)
 Not accepted with NCR (...)

2. Evidence must be given that the boundaries of the project area, planting area (eligible and non-eligible), management units and nature conservation area are clearly defined and visible in the field.

Findings

The boundaries of the project area, planting area (eligible and non-eligible), management units and nature conservation area are clearly defined and visible in the field through 6 - 9m wide strips, clearly visible in the field. The audit team confirmed the information during the onsite visit

CARs / FARs / NCRs

Final Conclusion

- Accepted
 Accepted with FAR (...)
 Not accepted with NCR (...)



03 Forest Management

3. A description of the following tree species characteristics must be given:
- Origin and distribution of the tree species (indicate if the species are native or not)
 - Provenance of the seeds
 - Main purpose / Use of trees
 - Possible pests and diseases
 - Time when forest products are foreseen to be used

Findings

A table is provided in the PDD showing the specific information on the origin and distribution of the tree species (a), the provenance of the seeds (b), the main purpose / use of trees (c), possible pests and diseases (d) and Time when forest products are foreseen to be used for the four tree species. The audit team confirms compliance with the requirement.

Ref 2: 02_CFS_KFR_PDD, Page 17

References (IRL): 2

CARs / FARs / NCRs

Final Conclusion

- Accepted
 Accepted with FAR (...)
 Not accepted with NCR (...)



03 Forest Management

4. Evidence must be given that at least 10% of the project area is managed

- a. as a nature conservation area OR
- b. to meet a national or sub-national HCV area definition.

Criterion 4. does not have to be fulfilled in case more than 30% of the project area is managed according to chapter '06 CO₂-fixation - Option 1b) Conservation forest'.

Findings

In Ref 2: PDD 2008 Page 15 3'575 ha are indicated as conservation area which is 29% of the total area.

This was derived and satisfyingly sustained through analysis of the satellite pictures of 2006 presented in the chapter Eligibility. Ref. 24.

The borders indicated in Ref. 24 were confirmed during field check.

Ref 3 indicates 2437 ha or about 20% of the Project area to be aimed to be set aside for conservation purposes. The final figure will be determined when the tree planting is finalized.

The total area in the most recent PDD is different to the validated ones (12'186 ha Ref 3 p.11).

The criterion of at least 10% conservation area is fulfilled.

References (IRL): 2,3, 24

Corrective Action Request No 4

Provide consistency in area figures between the PDD and shape files.

Response by PP:

- Since the last CFS certification in 2008, the forest management plans regarding the planned nature conservation area have been adapted from former 29% (3 575 ha) to currently about 20% (2437 ha).
- The current planning for the future planted areas are done based on satellite images. But sometimes the actual field conditions are different on the ground and hence to be adapted accordingly.
- The current future goal of for the conservation area is about 20% (about the double the area necessary for the certification).
- The total area figure given in Ref.26 (Tree farming license.pdf) is 12 186 ha.
- The shapefile "Reserve Boundary" which has been provided by the NFA (National Forestry Authority's) and which is THE base for all planning and measurement in the field, only shows an area of about 12 182 ha (exact: 12 182.235 ha).
- To facilitate future communication and certification, the area figure given by the shapefile (12 182ha) will be used and communicated!
- All relevant documents/calculations have been adapted accordingly.

Conclusion of the audit team

Consistency of area figures is given. The area of 12'182 ha is used Ref 17: Reserve Boundary.shp

The audit team confirms that at least 10% of the project area is managed a. as a nature conservation area.

Final Conclusion

- Accepted
 Accepted with FAR (...)
 Not accepted with NCR (...)



03 Forest Management

5. Evidence must be given that the nature conservation area is managed in order to establish, maintain or restore the natural ecosystem of the landscape the project is integrated in.

Findings

It is described that managing the conservation areas consists mainly in protecting them from illegal activities like cattle grazing or charcoal production. A particular management plan for site preparation is developed by the PP to ensure that any clearance do not harm the conservation objectives.

The SOP "Site Preparation" was provided during field visit (Ref. 27). The SOP describes the procedure to avoid damages on biodiversity. Before clearance operations start a survey has to be conducted in order to find out if there are any items of biodiversity value are there to be found. These items are species listed in the IUCN red-list and closed forest (at least 1 ha, 5 meters high, 30% crown cover).

During onsite visit the correct application of the SOP could be confirmed.

References (IRL): 27

CARs / FARs / NCRs

Final Conclusion

- Accepted
- Accepted with FAR (...)
- Not accepted with NCR (...)

6. Evidence must be provided that the protection or management of the nature conservation area enhances habitat connectivity.

Findings

The nature conservation areas are integrated into the planted area like a network. This is sustained with maps GIS-files. Ref. 4. The borders indicated in Ref. 4 were confirmed during field visit.

References (IRL): 4

CARs / FARs / NCRs

Final Conclusion

- Accepted
- Accepted with FAR (...)
- Not accepted with NCR (...)



7. Key figures on the following areas must be provided:

- a. Project area
- b. Planting area(s)
- c. Eligible planting area(s)
- d. Nature conservation area(s)

Findings

Key figures a. (12'186 ha), b. (3'405.8 ha), c. (3'406.7 ha), and d (2'437 ha) are provided. Shape file on c. eligible areas is provided containing 3039.1 ha (Ref. 16).

References (IRL): 16

CARs / FARs / NCRs

Corrective Action Request No 5

Provide shape files on all categories (Project area, Planting area, Eligible area, Nature conservation area) and provide consistency with figures indicated in PDD. Explain determination of borders.

Response by PP:

- The border is determined by a boundary map provided by NFA. This map reflects the delineation made in the 1960s as well as subsequent boundary opening exercises. On the ground, corners of the boundary are marked with corner trenches of app. 1 meter depth and width and 3 meters length. In the areas where trees are planted, a fence with three lines of barbed wire is set up.
- Ad a.) As stated in CAR 4 the project area (according to the Ref. 26) is 12 186 ha, but will from now on considered to be 12 182 ha as this is the given size given by the GIS shape file "Reserve Boundary" submitted by the NFA- Uganda (and base for all calculations and management).
- Ad b.) According to the most actual GIS-field data, the total planting area at data of the certification (field visit) has been 3408.93 ha (according to GIS shape files "Planted area 2002-2008; Planted area 2009-2012").
- Ad c.) The eligible planting area has been determined by the means of satellite images taken in 1990 (see Ref.2, PDD_KFR_CFS_2008.pdf Page 1-5; Eligibility). For the planted area 2002-2008, all areas with the attribute "Wetland, Natural Forest and Other Land-use" have been considered as "Non-eligible".
For the planted area 2009-2012, all areas with the attribute "Natural Forests and Other Land-use" have been considered as "Non-eligible". It became obvious, that the areas defined as "Wetland" according to the satellite image of 1990 is not reflecting the actual condition in the field. Its practicability to define "wetland or non-wetland" in the field is therefore limited. The more realistic and practical approach used, is determine the "wetland-zone" right on the spot. This is done by an independent auditor (Dr. James Kalema, Botanist at Makerere University, Kampala).
- Ad d.) About 20% (2436.4 ha) of the project area are aimed to be set aside for conservation purposes. The final figure is yet to be determined when the tree planting is finalized. The nature conservation area will mainly consist of areas which are already considered as "non eligible".
- All relevant Shapefiles are provided in the folder "Shapefiles for 03-09 Page 16 PDD" which is also providing the necessary information required for question 03-09 of the PDD_2012. (Tobias Depnering, 05.11.2012)



7. Key figures on the following areas must be provided:

- a. Project area
- b. Planting area(s)
- c. Eligible planting area(s)
- d. Nature conservation area(s)

Conclusion of the audit team

New key figures are provided

- a. (12'182 ha), area of shape file Ref 17
- b. (3253.1ha), sum of areas in attribute tables of shape files Ref 29 plus Ref 30, Ref 34
- c. (2'964.5 ha), sum of areas in attribute tables of shape files Ref 31 plus Ref 32, Ref 34
- d. (2'436.4 ha), The final figure is yet to be determined when the tree planting is finalized.

For the boundaries were confirmed through sampling during the onsite the figures can be confirmed.
CAR is closed.

Final Conclusion

- Accepted
 Accepted with FAR (...)
 Not accepted with NCR (...)



8. Shapefiles with the following information must be submitted through ClimateProjects:

- a. Project area(s)
- b. Management Units

Findings

Ad a.: Shape file: Eligible areas for CFS 2012.shp

Ad b.: The MU Id numbers for MU 1-16 are not in the GIS file. During the initial verification the numbering was different.

References (IRL): 16

CARs / FARs / NCRs

See CAR 5

Corrective Action Request No 6

Explain the system of numbering the MU's. Include the MU ID in the attribute table of the GIS file.

Response by PP:

- All relevant GIS-files (See CAR 5) ("Planted area 2002-2008", "Planted area 2008-2012", "Planted Area_ 2002-2008_Eligible for_CFS", "Planted Area_2009-2012_Eligible for_CFS") have been corrected accordingly with a specific MU-ID (001-016, and 017-033). This MU-ID has already been used for the CFS-certification 2008 and is also used for the Management Units in Climate projects.
- All Management Units can be identified by 2 different ID-attributes. The most frequently used identification within the daily work and the field data base is the numbering by planting year (season) i.e. 2010-I-3. ("2010" stands for the planting year, "-I-" stands for the planting season, "-3" stand for the specific planted area or stratum.
- The ID used mainly for the CFS-certification is the MU-ID (001-033)

Conclusion of the audit team

According to Ref 29, 30, 31, 32 GIS-files have been corrected with the specific MU-ID. The system is explained. Correct Shapefiles are submitted to ClimateProjects, hence the requirement is fulfilled

Final Conclusion

- Accepted
 Accepted with FAR (...)
 Not accepted with NCR (...)



9. The certification body may require the submission of shapefiles with the following information:

- a. Land-use classes of the project area 10 years prior to planting start for '01 Eligibility'
- b. Wetland areas within the project area for '01 Eligibility'
- c. Nature conservation area(s) for '04 Environmental Aspects'
- d. Neighbours of the project (individuals, villages, towns, etc.) for '05 Socio-economic Aspects'
- e. Eligible planting area and non-eligible planting area for '06 CO2-fixation'
- f. Land-use classes of the project area just before the planting start for '08 Baseline'
- g. Infrastructure of the project (roads, rivers, houses, etc.) for '11 Capacities'

Findings

No shape files on a., b., c., d., e., f., g. are indicated

CARs / FARs / NCRs

Corrective Action Request No 7

Indicate the related shape files for a., b., c., d., e., f., g. and provide all shape files not covered by CAR 6.

Response by PP:

All Folders containing the relevant shape-files are indicated and uploaded (see folder "Shape-files for 03-09 Page 16_PDD").

Conclusion of the audit team

The shape files are now indicated in the PDD for all categories. The files are correct and in line with the PDD. The files are also uploaded on ClimateProjects, the CAR is closed and requirement met.

Final Conclusion

- Accepted
 Accepted with FAR (...)
 Not accepted with NCR (...)



Environmental Aspects

Findings

The project is FSC certified.

In line with the Carbon Fix procedures for combined certification, environmental aspects do not need to be assessed, if a valid FSC certificate is provided.

During onsite visit a valid FSC certificate was provided (Ref. 28) and crosschecked on FSC webpage.

<http://info.fsc.org/PublicCertificateDetails?id=a0240000006tLs3AAE>

FSC License Code: FSC-C102912

Certificate Code: SGS-FM/COC-009362

References (IRL): 28

CARs / FARs / NCRs**Final Conclusion**

- Accepted
- Accepted with FAR (...)
- Not accepted with NCR (...)

**Socio-Economic Aspects****Findings**

The project is FSC certified.

In line with the Carbon Fix procedures for combined certification, socio-economic aspects do not need to be assessed, if a valid FSC certificate is provided.

During onsite visit a valid FSC certificate was provided (Ref. 28) and crosschecked on FSC webpage.

<http://info.fsc.org/PublicCertificateDetails?id=a0240000006tLs3AAE>

FSC License Code: FSC-C102912

Certificate Code: SGS-FM/COC-009362

References (IRL): 28**CARs / FARs / NCRs****Final Conclusion**

- Accepted
- Accepted with FAR (...)
- Not accepted with NCR (...)



1. The present CO₂-fixation must be assessed, once the average tree height within a management unit exceeds 3 meters. Hereby, the CarbonFix guideline 'Forest Inventory' must be followed.

Findings

Indicated as N/A

During field visit all new management units were checked. None of them reached an average tree height of more than 3 meters.

New planted MU's were checked on eligibility, boundaries, plantation (species) during field visit and found all in line with the requirements.

CARs / FARs / NCRs

Corrective Action Request No 8

Provide a statement on the Management Units considering the criterion of 3 meters average height.

Response by PP:

A newly planted seedling planted at the KFR has to struggle with wind, competing plants, poor/dry soil, wind and water-erosion. Therefore the growth, especially within the first years is happening below the soil-surface, the plants have to develop good root first. Therefore none of the newly planted stand have reached an average height of 3 meters and above yet. This could be confirmed during field a visit.

Conclusion of the audit team

A statement is provided in the PDD that the average tree height within the new MUs has not yet exceeded three meters. This was assessed and confirmed during the physical onsite visit.

CAR is closed

Final Conclusion

- Accepted
- Accepted with FAR (...)
- Not accepted with NCR (...)



2. The future CO₂-fixation is determined by a management unit specific growth-model.

Evidence must be given, that growth-models are based on credible scientific sources and site-adapted factors.

Evidence must be given that before any monitoring certification, the management unit specific growth-models are adjusted according to the latest actual monitoring data gained through the assessment of the present CO₂-fixation.

Findings

The future CO₂-fixation is based on the growth model Alder et. Al. 2003

This growth model shows height and volume curves depending on site indices and is considered scientifically sound.

Depending from the actual measurements the site class was adjusted to calculate the volumes. The mean site index increased from 18.5 to 18.9.

For new MU's a conservative site index of 18.0 was used.

The impression from site visit confirmed the magnitude of the growth rates, anyway measured through the inventory.

Ref. 10: 06-02_Kikonda-Alder-model_May 2003.pdf, Yields of Eucalyptus and Carribean Pine in Uganda, Denis Alder et. Al. 2003

Ref. 11: 06-03_Kikonda - summary inventory+site index update 25032012.xls

Ref. 11b: 06-03_Kikonda - summary inventory+site index update 06112012_Nov_2012.xls

References (IRL): 10, 11, 11b

CARs / FARs / NCRs

Final Conclusion

- Accepted
- Accepted with FAR (...)
- Not accepted with NCR (...)



06 CO₂-Fixation

3. In case of 'selective harvesting' or 'conservation forest', the future CO₂-fixation is based on the equilibrium stand volume during the crediting period of the project. If the equilibrium stand volume is not yet reached by the end of the project's crediting period, the future CO₂-fixation is determined by the 'stand volume' of the year the crediting period ends. Evidence must be given through the project characteristics (tree species, project participants, etc.) and its silvicultural objectives that the forests will be used in a 'selective harvesting' regime or will be 'conserved' (no use of timber).

Findings

It is stated that selective harvesting or conservation forestry is applied.
All calculations are based on rotation forestry. See also 4.
Information provided onsite also says that stand wise rotation forestry concept is applied.

CARs / FARs / NCRs

Corrective Action Request No 9

Indicate the actual applied silvicultural scheme.

Response by PP:

The applied forestry scheme within the Kikonda Forest Reserve is the rotation forestry scheme with an a rotation of 18 years.

Conclusion of the audit team

Rotation forestry is now indicated as forestry scheme. CAR is closed.

Final Conclusion

- Accepted
- Accepted with FAR (...)
- Not accepted with NCR (...)



4. In case of rotation forestry, the future CO₂-fixation is based on the mean stand volume during the first rotation period.

Findings

It is stated that rotation forestry is the silvicultural scheme.
The mean stand volume during the first rotation period is not indicated. (see CAR 11)

Present fixation:

4.2 "standing volume + carbon stored at inventory date 2011.xls" indicated in the PDD to contain all calculations is not provided. Instead the data entry date and the calculations in separate files by stratum were provided.

For each Stratum an Excel-file is provided

Example: Inventory_2009_Kikonda_Stratum 2002-2_22-07-11_BM

Calculation of tree volume:

Parameters used:

SPECIES ID = PC for Pinus Caribaea

Form Factor = 0.50 (see CAR 14)

Wood density (t/m³) = 0.50 (see CAR 14)

BEF = 1.50

root-shoot-ratio = 0.40 (see CAR 14)

Carbon fraction = 0.50

C/CO₂ ratio 3.67

See Inventory_2009_Kikonda_Stratum 2002-2_22-07-11_BM.xls table "Entry form" cells E259:F264

The formula for single tree volume was used correctly.

The mean height was derived correctly.

The formula to determine the standing timber volume per ha per plot was used correctly.

The formula to calculate the standing timber volume per ha per stratum was used correctly.

Other validated parameters are:

Parameters as mentioned under future fixation plus

Form Factor = 0.42 (Alder)

According Ref. 6

Findings: Calculation details

Stem biomass correct formula: Stem biomass = Basal area*Mean height*form factor
Biomass (aboveground)= Stem biomass * BEF
Biomass (belowground) = Biomass (aboveground) * (root to shoot ratio)
Total biomass = Biomass (aboveground) + Biomass (belowground)
Carbon = Total biomass * CF (0.5)
Gross CO ₂ = carbon * 3.667
Baseline CO ₂ = 2.6 (see CAR 15)
Net CO₂



4. In case of rotation forestry, the future CO₂-fixation is based on the mean stand volume during the first rotation period.

The calculations in the table above were checked in the Excel-tables and found correct, except for Baseline see CAR 15

Error calculation:

Findings: Per each stratum the error of the mean was calculated. The correct t-value column for 95% confidence interval was used. The t-value used was 2.09 which is valid for 20 degrees of freedom or 21 sample plots.

Findings: last page of template of PDD chapter 06 CO₂ Fixation is not provided with any information

References (IRL): 6, 8, 11

CARs / FARs / NCRs

Future fixation:

Corrective Action Request No 10

In order to ensure correct calculations of emission reductions, the PP shall clarify and indicate the rotation duration of the plantations by site index.

Response by PP

- Image is a screen shot of the Ref.10 06-02_Kikonda-Alder_model_May 2003.pdf page 14
- The rotation age of 18 years was determined based on the information given by the Alder model. It is showing that at this age the annual height growth is at its maximum and the first MAI declination appears.
- Nevertheless, the length of the rotation is constantly being scrutinized based on actual growth of the stands (reflected in the site index) as well as market requirements in terms of log sizes. According to the Alder model used, the growth rate is reduced passing the 18th year.

Conclusion of the audit team

A general rotation duration of 18 years is indicated. It is derived from the Alder model Ref 10. It will be adjusted according to the actual growth and markets requirements. Request is closed.

Corrective Action Request No 11

Ensure compliance with formula for calculation of the mean stand volume.

Response by PP

The calculation for the CO₂-Fixation has been redone and is now broken down into its 18 years of growth according to the Alder growth model and some interpolations (see document CO₂-Fixation_KFR_according_Alder_and_iste_index_2012.xls)

All parameters are uploaded to the climateprojects online CO₂-Fixation calculation system.

Conclusion of the audit team

The formula for calculating the mean stand volume is now applied correctly by including year 1 and 18. The amount of Emission Reductions stated in the CarbonFix internal "Climate Projects" system is not in compliance with the actual calculations that were checked by TÜV SÜD. Considering that the figures and calculations in "Climate Projects" are not traceable, the audit team cannot confirm the figures that



4. In case of rotation forestry, the future CO₂-fixation is based on the mean stand volume during the first rotation period.

are provided by Climate projects (in particular the document "Management-Units_KFR_CFS.pdf" for this project).

Corrective Action Request No 12

The PP shall clarify if fire lines are included in the area.

Response by PP

See "Forest inventory summary (2012)_20092012_BM.pdf, page 6"

Within the KFR there are two different sizes of fire lines use, with a width of 6m and 9m. For deduction an average mean width of 7.5m has been taken. This leads to the following calculation:

$67 \text{ km} \times 7,5\text{m} = 50.25 \text{ ha}$

$\text{Fire line (ha)} / \text{Planted area (ha)} \times 100 = 50.25 \text{ ha} / 3408.93\text{ha} \times 100 = 1.47 \%$

=> 1.47% of each hectare have to be deducted as area used as fire-line

Conclusion of the audit team

Fire strips are estimated conservatively and deducted from the plantation area. The approach is conservative due the length of 6m fire lines is more than that of 9 m fire lines. Eligible area less fire lines was used for ex post calculations.

Ref 11b: 06-03_Kikonda - summary inventory + site index update 06112012_Nov_2012.xls

Work sheet "future co2 calculation" cells J2-J34. Request is closed.

Corrective Action Request No 13

The correct references on the present fixation parameters shall be indicated.

Response by PP

The inventory 2011 showed that the mean dominant height of the trees in 2011 is above the level expected in the growth models. (Ref.11 "06-03_Kikonda_....xls." Worksheet "Site index 2007 +2011") In consequence the site index and with it the potential of the site to grow trees and store carbon is higher than what the model suggests. The project developer opts not to increase the expected amount of carbon stored at this point in time but rather wait until the end of the first rotation when data for the growth during one full rotation cycle is available. ...

The inventory in 2011 showed a standing timber volume that is lower than what is expected according to the model.

The reason for that is, that the stocking at inventory date is below what was foreseen in the model due to lower seedling survival in the first months after planting.

It is expected though, that the stocking will get in line with the values used in the model latest after the second thinning at age 12.

Combined with a dominant height being beyond the figure used in the model (as lined out before), the volume growth and carbon fixation projections remain to be conservative and sound.

Conclusion of the audit team

References regarding the present carbon fixation parameters are indicated (Ref 11, new 11b). CAR is closed

Corrective Action Request No 14

Clarify and provide evidence for the different parameters for tree volume calculation in present fixation (form factor, wood density and root-shoot-ratio).



06 CO₂-Fixation

4. In case of rotation forestry, the future CO₂-fixation is based on the mean stand volume during the first rotation period.

Response by PP

Ref. 13 "SOP_Inventory" page 38

It is the current policy of global-woods to use a standard form factor of 0,5 in the forest inventories for all tree species. Reason is, that using various form factors would be an additional source of errors in the processing of inventory field data.

For future purposes this might be reviewed as more precise form factors become available and the inventory team has gained more experience.

Data input required for:

- Species Name that are planted within this stratum (i.e. *Eucalyptus grandis*)
- Species ID (i.e. EG)
- Date of planting
- The Species Parameter can be disregarded as all species will be calculated with the blue highlighted form factor of 0,50!

Conclusion of the audit team

Clarification on parameters is provided and found correct. CAR is closed

Calculation details:

Corrective Action Request No 15

Clarify and provide evidence for the amount of baseline carbon stocks (2.6 tCO₂/ha)

Response by PP

The Inventory Excel-sheet (Ref.14) is only used for the calculation of the wood growth. It has been altered accordingly in 2009. The values given and used for the CO₂-fixation have no further use for the calculation of the CO₂-fixation. All calculation of the CO₂-Fixation is done by separate sheet and the Climateprojects.org webpage. For the calculation of the baseline the value 45 tCO₂/ha is used (See page 50 Ref.2)

Conclusion of the audit team

A baseline of 45 tCO₂/ha is now used according Ref 2, the respective calculations were checked and found correct. The CAR is closed.

Corrective Action Request No 16

Error calculation: The number of sample plot shall be indicated for each stratum and the t-value taken accordingly. Correct the precision calculation using the correct t-values depending on actual number of plots per each stratum.

Response by PP

The number of sample plots has been added. The calculation of the precision of the values has been corrected accordingly

Conclusion of the audit team

Correct values are taken per each stratum depending on number of sample plots.

Ref 15b: 06-07_ KFR_Precision level_of_Inventory 2011_CFS_2012_Nov_2012_TD

The PP shall follow the calculation procedure of CFS for carbon fixation if the error is more than 20% in a MU.

Response by PP

For the next inventory the areas with higher values than 20% will be taken into consideration for an increasing of the sample plot number. The revised and some new documents are uploaded to "climateprojects". These documents contain the required information



4. In case of rotation forestry, the future CO₂-fixation is based on the mean stand volume during the first rotation period.

Conclusion of the audit team

The CFS Methodology Forest Inventory Guideline p.5 considers a reduction of the mean if precision level is above 20%. This is done in Ref 15b column D and Ref 33, table P-L Calculation, column D .

Ref 15b: 06-07_KFR_Precision level_of_Inventory 2011_CFS_2012_Nov_2012_TD

Ref 33: 06-09_CO2-Fixation_KFR_according_Adler_and_site_index_2012_Nov_2012.xls

Ref 11b: 06-03_Kikonda - summary inventory+site index update 06112012_Nov_2012.xls

The CAR is closed.

Corrective Action Request No 17

Provide information required on the last page of the PDD 06 CO₂ fixation.

Response by PP

The requested information has been added. It is also contained within the documents "06-07_Calculation Precision level Inventory 2011 KFR for CFS_2012.xls" and "06-03_Kikonda - summary inventory+site index update 06112012.xls"

Conclusion of the audit team

All calculation found correct based on following Excel sheet

Ref 15b: 06-07_KFR_Precision level_of_Inventory 2011_CFS_2012_Nov_2012_TD

Ref 33: 06-09_CO2-Fixation_KFR_according_Adler_and_site_index_2012_Nov_2012.xls

Ref 11b: 06-03_Kikonda - summary inventory+site index update 06112012_Nov_2012

The CAR is closed.

Overall conclusion for CFS requirement 6.4:

The audit team reviewed the calculation and respective references. The calculation as presented in the PDD and the respective Excel file is in line with CFS requirement.

The total carbon sequestered in the trees is 69,253 t CO₂ equivalents. In order to calculate the total number of credits, the project emissions, baseline and leakage have to be deducted, as well as the risk buffer. (see respective section of the protocol below).

The calculation is done via the automated CarbonFix internal "Climate Projects" system, as well as in a traceable Exel file (IRL 11, 33, 35). TÜV SÜD assessed the Excel file and its underlying calculation and confirms that the calculations were carried out in line with the CFS.

The final amount of net GHG removals equals 15,847 t CO₂-equivalents. Based on 69,253 t CO₂ equivalents removals by trees, 40,815 t CO₂-e emissions from the baseline, 4,428 t CO₂-e project emission, and 8,163 t CO₂-e leakage, all numbers calculated following the CFS and based on the information provided in the PDD.

Final Conclusion

- Accepted
 Accepted with FAR (...)
 Not accepted with NCR (...)



07 Project Emissions

1. In order to account for project emissions due to the use of fossil fuels within the project (e.g. through machines, flights, etc.), 0.5% of the future CO₂-fixation must be deducted.

Findings

The default figure of 0.5% reduction of the CO₂-fixation is stated to be used and considered in the calculations.

Ref. 11: Kikonda - summary inventory+site index update 12112008. Reduction used in table "future CO₂ fixation" cells R3-R17.

References (IRL): 11

CARs / FARs / NCRs

Corrective Action Request No 18

Calculations on emissions need to be updated in line with requests 10 – 18 in section 06.1

Response by PP

Baseline		Leakage		Project emissions ¹				Net CO ₂ reduction	
	Σ		Σ	ME	BB	FU	Σ		Σ
45	45	9	9	0	4.50	0 kg N	4.5	0 (-59)	0 (-59)
0	45	0	9	0	0.00	0 kg N	4.6	13	0 (-46)
0	45	0	9	0	0.00	0 kg N	4.8	55	9
0	45	0	9	0	0.00	0 kg N	5.2	69	78
0	45	0	9	1	0.00	0 kg N	5.7	111	189
0	45	0	9	1	0.00	0 kg N	6.4	135	325
0	45	0	9	0	0.00	0 kg N	6.4	2	327
0	45	0	9	0	0.00	0 kg N	6.4	0	327

Project Emissions (ME = Management emissions [0.5% * CO₂ reduction]) are automatically deducted by the Climateproject webpage system

The parameters for the calculation have been adjusted and corrected accordingly to CAR 10-18

Conclusion of the audit team

Ref. 33: 06-09_CO₂-Fixation_KFR_ according_Adler_and_site_index_2012_Nov_2012.xls Reduction used in table "CO₂-Fixation per MU & ha & a" "table 3.5 lines 180 ff. The calculations were checked and found correct.

The total amount of emission is 0.5% of the carbon sequestered in the trees (69,253 t CO₂ equivalents), which equals to 346 t CO₂ for MUs 002-016 for the first monitoring period.

Final Conclusion

- Accepted
 Accepted with FAR (...)
 Not accepted with NCR (...)

07 Project Emissions



2. In case fertilizer is used, 0.005 tCO₂ per kg of nitrogen (N) must be deducted. Hereby, no differentiation is made between synthetic and organic fertilizer.

Findings

No fertilizer is foreseen to be used in the project. This was confirmed during interviews onsite and visit of the nursery.

CARs / FARs / NCRs

-

Final Conclusion

- Accepted
 Accepted with FAR (...)
 Not accepted with NCR (...)

3. In case the biomass of the baseline is burned on the field for the purpose of land preparation, an additional 10% of the baseline emissions must be accounted for. This is due to other greenhouse gases (N₂O and CH₄) that are released during the burning process.

Findings

It is indicated that on all MUs biomass is burned for site preparation. This is the standard procedure and this could be confirmed during onsite visit. 10% additional baseline emissions are accounted for that.

CARs / FARs / NCRs

Check of final calculation spreadsheet considering CAR's 10 – 18 in 06.1

Response by PP:

The information is included in the Climateprojects webpage. The 10% additional emission of the biomass burned is here deducted automatically by the system. All values have been checked and CARs have been considered for the calculation

Conclusion of the audit team

Ref 11b: Kikonda - summary inventory+site index update 12112008_Nov_2012_3.xls work sheet "future co2 fixation" column Y

Ref 33: CO2-Fixation_KFR_ according_Alder_and_site_index_2012_Dec_2012.xls. Reduction used in table "CO2-Fixation per MU & ha & a" "table 3.5 lines 180 ff

4.5 tCO₂/ha (10% of 45 tCO₂ baseline emission) are deducted in the calculation. Considering the 907 ha considered for this verification it amounts to 4,082 t CO₂ e in total for the MUs 002-016 for the first monitoring period. The calculations were checked and found correct. CARs 10-18 are closed

Final Conclusion

- Accepted
 Accepted with FAR (...)
 Not accepted with NCR (...)

08 Baseline

1. The baseline is the 'woody biomass' and 'non-woody biomass' on the eligible planting area just before the planting start. The calculation can be done in two different ways:

- a. By executing field measurements. Here, the 'Forest Inventory' guideline shall be applied.
- b. By estimating the biomass in reference to similar areas
 - regional and national default values shall preferably be used
 - international default values can only be used if other values are not available

Findings

The PDD does not mention the structure required by the standard.

Option a) is indicated to be followed:

Woody	Non-Woody:
Wood density: 0.58	Wet-to-Dry ratio: 0.36
Biomass Expansion Factor: 1.4	Root-to-Shoot ratio: 0.48
Root-to-Shoot ratio: 0.48	Carbon fraction: 0.5
Carbon fraction: 0.5	C to CO ₂ -ration: 3.666
C to CO ₂ -ration: 3.666	

Key parameters used came from Ref 2 p.48 and p 49

Ref 2b: 02_CFS_KFR_PDD_2008, Page 47-50

The parameters were certified in Ref. 6: "Validation Report" Validation Protocol pp 15-16.

The baseline used in the calculation of the fixation is 2.6 tCO₂/ha.

References (IRL): 2b

CARs / FARs / NCRs

See CAR 15: Explain the Baseline value of 2.6 tCO₂/ha

Response by PP

The baseline for the calculation used, is the value given above and in Ref.2 :PDD_KFR_CFS_2008, page 48 and 49

The values which have been certified in 2008 of baseline and leakage were not correct (the value 45t and 9t were switched in the climateprojects system. This has now been corrected. This had an influence on the calculation of the "biomass burned" calculation.

The baseline mentioned above is an artifact within the inventory sheet, which is not used anymore and has therefore no influence on the calculation.

Conclusion of the audit team

New correct baseline value of 45 tCO₂/ha is used. Considering the area of the MUs of 907 ha, total emissions expected from the baseline carbon stocks are 40,815 t CO₂-e as per the CFS.

Ref 11b: Kikonda - summary inventory+site index update 12112008_Nov_2012_10.xls work sheet "future co2 fixation" column W

And Ref 33: CO₂-Fixation_KFR_ according_Alder_and_site_index_2012_V2_18_Dec_2012.xls

Reduction used in table "CO₂-Fixation per MU & ha & a" "table 3.5 lines 180 ff

Final Conclusion

- Accepted
 Accepted with FAR (...)
 Not accepted with NCR (...)

9 Leakage



Leakage is caused by an increase of emissions outside of the project area as a result of the project activity. Leakage emissions can be caused due to a shift of the following activities:

- | | |
|----------------------|-------------------------|
| a. fuelwood use | b. charcoal burning |
| c. timber harvesting | d. agricultural farming |
| e. resettlement | f. livestock grazing |

Findings

Overview of the results of the leakage analysis is presented in the PDD. The information was reviewed by the audit team and confirmed to be correct.

Information regarding leakage was further confirmed through interviews with relevant stakeholders during the onsite visit.

Following parameters were used for Fuelwood use:

- Stem volume: 14.9 m³/ha
- Wood density: 0.58
- Biomass Expansion Factor: 1.4
- Root-to-Shoot ratio: - (no selected carbon pool)
- Carbon fraction: 0.5
- C to CO₂ -ration: 3.666

Following parameters were used for Charcoal burning

- Stem volume: 14.9 m³/ha
- Wood density: 0.58
- Biomass Expansion Factor: 1.4
- Root-to-Shoot ratio: - (no selected carbon pool)
- Carbon fraction: 0.5
- C to CO₂ -ratio: 3.667

The parameters were certified during the initial certification for the entire project area: 9 t CO₂-e per ha, considering a total of 907 ha, a total of 8,163 t CO₂-e were calculated as leakage for the first monitoring period for MUs 002-016 as per the CFS.

Ref. 02_CFS_KFR_PDD, Page 51-56, Ref. 6 : Validation Report, Validation Protocol p.16

References (IRL): 2, 6

CARs / FARs / NCRs

Final Conclusion

- Accepted
 Accepted with FAR (...)
 Not accepted with NCR (...)

**Capacities****Findings**

Project is FSC certified.

In line with the Carbon Fix procedures for combined certification, the section and requirements on “Capacities” do not need to be assessed, if a valid FSC certificate is provided.

During onsite visit a valid FSC certificate was provided (Ref. 28) and crosschecked on FSC webpage.

<http://info.fsc.org/PublicCertificateDetails?id=a0240000006tLs3AAE>

FSC License Code: FSC-C102912

Certificate Code: SGS-FM/COC-009362

References (IRL): 28

CARs / FARs / NCRs**Final Conclusion**

- Accepted
- Accepted with FAR (...)
- Not accepted with NCR (...)



1. Evidence must be given that the project developer has an uncontested legal land title of the project area, for a minimum period of the project's crediting period.

Findings

All new MUs are part of the already certified project area. The legal status of the project owner is not indicated.

Global Woods is Long-term leaseholder

Ref 2: 02_CFS_KFR_PDD, Page 67

Ref. 6 : Validation Report Validation Protocol p. 19-20.

Ref. 26 : Agreement to grow timber plantations in Kikonda forest reserve.

References (IRL): 2,6,26

CARs / FARs / NCRs

Corrective Action Request No 19

Indicate the legal status of the project owner and provide to the respective evidence to the audit team.

Response by PP

The document (02_CFS_PDD_KFR_CFS_2008, Page 67) confirms all relevant necessities, see also Ref. 'Kikonda - Secured land tenure - tree planting licence.pdf', The license has duration of 50 years, global-woods is the long-term leaseholder as indicated.

Conclusion of the audit team

Legal status is indicated and referenced (Ref. 2b and Ref 26). Evidence is provided that the project developer has an uncontested legal land title of the project area, for a minimum period of the project's crediting period.

Final Conclusion

- Accepted
- Accepted with FAR (...)
- Not accepted with NCR (...)

11 Land & CO₂ Tenure



2. Evidence must be given that all necessary permits for the implementation and management of the project (planting permits, harvesting permits, infrastructures permits, etc.) are secured for a minimum period of the project's crediting period.

Findings

It is not indicated that the permissions are secured for the project lifetime.

CARs / FARs / NCRs

Corrective Action Request No 20

Confirm and sustain with evidence if all necessary permits for the implementation and management of the project are secured for a minimum period of the project's crediting period

Response by PP

The project owner has a contract with the Ugandan government which is confirming the securement of the project for its lifetime, see Ref. 'Kikonda - Secured land tenure - tree planting licence.pdf,

Conclusion of the audit team

Necessary permits for the implementation and management of the project were provided to the audit team. The audit team reviewed the documents and considers that the CFS requirements are met (Ref. 2b and Ref 26)

Final Conclusion

- Accepted
- Accepted with FAR (...)
- Not accepted with NCR (...)



3. On overview on the contact details of the project participants must be provided.

Findings

The contact details are included in the PDD:
Project developer (project owner), Contact person: Matthias Baldus
Owner of the CO₂-rights: global-woods AG
Owner of the land: State of Uganda
Owner of the timber: global-woods AG
Owner of other resources: State of Uganda
Project financier: global-woods AG

CARs / FARs / NCRs

Corrective Action Request No 21

Indicate a specific contact with "State of Uganda"

Response by PP

The responsible administrative organ within the Ugandan government for the Kikonda Forest Reserve is the National Forestry Authority's of Uganda NFA

Executive Director NFA
mail@nfa.org.ug
10/20 Spring Road, Nakawa
Kampala, Uganda

Conclusion of the audit team

Contact details for "State of Uganda" are provided. The audit team confirmed that the information are correct through document review of respective contracts and interviews during the onsite visit (see also initial certification report). Respective requirements of CFS are met.

Final Conclusion

- Accepted
- Accepted with FAR (...)
- Not accepted with NCR (...)



11 Land & CO₂ Tenure

4. Evidence must be given that the project developer is the
- Owner of the CO₂-rights AND
 - Owner of the land AND
 - Owner of the timber AND
 - Owner of other resources
 - Project financier

If the project developer is not all of the above, evidence must be given that the respective participant agrees with the expected project activity for the minimum period of the project's crediting period.

Findings

In Chapter 11.3 it is indicated that global woods is owner of a. c. and is e. and the State of Uganda is owner of the land and of other resources.

Reference is given to the PDD 2008 (Ref 2 p.67) which is only indirectly sustaining the statements with the evidence.

References (IRL): 2

CARs / FARs / NCRs

Corrective Action Request No 22

The PP shall provide evidence for the ownership, or present respective contracts as requested by CFS.

Response by PP

The CO₂ right are generated through tree planting. Since global-woods is the legal owner of the planted trees within the Kikonda Forest Reserve, (see Ref. Ref. 'Kikonda - Secured land tenure - tree planting licence.pdf) global-woods is also owner of the carbon sequestered by its trees

Conclusion of the audit team

Evidence (Ref 26) is provided to sustain ownership situation. The audit team confirmed that the information are correct through document review of respective contracts and interviews during the onsite visit (see also initial certification report). Respective requirements of CFS are met.

Final Conclusion

- Accepted
 Accepted with FAR (...)
 Not accepted with NCR (...)



5. In case the owner of CO₂-rights is a group of multiple individuals, authorization for the issuance and assignment of the CO₂-certificates must be given to the project developer with a written approval.

Findings

Chapter is indicated as not applicable, as Global Woods is the only owner of the CO₂-rights (IRL 26)

CARs / FARs / NCRs

Final Conclusion

- Accepted
- Accepted with FAR (...)
- Not accepted with NCR (...)



001 Documentation Format

1. Templates shall be filled out with a green colour and the font type Calibri, size 10.
2. Red coloured comments in the template shall be deleted before document submission.
3. Maps shall include the following information: Name of the project, Direction of North, ID of the project, Used GPS coordinate system (e.g. WGS 84), Legend, GPS grid, Printing date, Infrastructure (roads, houses, etc.) and rivers, Scale, Information on the satellite or aerial picture used (date, resolutions, data source)
4. Figures above one thousand shall be formatted with a space (1 000 000), whereby decimals will be separated by a point (1.35).
5. Pictures, graphs and tables within project documents shall be clearly marked with a unique ID.
6. Supporting documents must be numbered according to the format outlined in the CFS. In the project documents, ONLY the reference number (01-02) shall be stated, together with the exact location of the referred information.
7. The project documents and supporting documents must be submitted in English, OR a language which has been agreed upon by the project developer, the technical board of CarbonFix and the certification body that executes the certification process.
8. The ClimateProjects platform must be used to submit the project information for any pre-validation and certification process. All project information must be made publically available through the ClimateProjects system, except for confidential information.

Findings

(include at least one sentence per requirement above)

Ad 1.: Templates are filled as required

Ad 2.: Not all red colored comments are deleted

Ad 3.: Maps were provided during onsite visit containing all information as required by the standard.

Ad 4.: The format of figures are not in line with the requirements

Ad 5.: There is only one picture (satellite image) in the PDD, no graphs. Tables don't have an ID.

Ad 6.: The supporting documents are not according the CFS.

Ad 7.: The documents are all provided in English language.

Ad 8.: Project information is provided on the ClimateProjects platform

CARs / FARs / NCRs

Corrective Action Request No 24

Follow the formal requirements of CFS:

Ad 4.: Indicate the format of figures in line with the requirements

Ad 5.: Mark pictures and tables with an ID as required by the standard.

Ad 6.: Number the supporting documents according the CFS.

Response by PP

- Ad 4.)The figures within the PDD are corrected to be in line with the requirements
- Ad 5.)The Pictures and tables received an ID as required
- Ad 6.) The supporting documents received their ID according to CFS

Conclusion of the audit team

Format requirements are fulfilled (Ref 3b).

Final Conclusion

Accepted



010 Avoidance of Double Counting

1. In case a project is located in a district or country that is part of a national or pan-national scheme that must report its forest area, the project developer can only assign its CO₂-certificates to a CO₂-buyer using minimum one of the following options:

1a. The CO₂-buyer explicitly agrees in purchase agreements to the statement as detailed in the CFS

1b. The respective agency of the projects host-country gives a statement as detailed in the CFS

1c. The project developer retires

- one additional CO₂-certificate from another project certified according to the Carbon Fix Standard, OR
- one additional Gold Standard certificate

for every CO₂-certificate assigned to a CO₂-buyer.

Hereby, the additional retired certificate must carry the ID of the assigned CFS CO₂-certificate.

Findings

Not applicable: Uganda is not part of a national or pan-national scheme that must report its forest area for the aim of carbon accounting at the time of the certification

CARs / FARs / NCRs

-

Final Conclusion

- Accepted
 Accepted with FAR (...)
 Not accepted with NCR (...)

List of Reference



Industrie Service

Annex 2: List of References

Ref. No.	Author/Editor/ Issuer	Title, Type of Document	Date	
1.	TÜV SÜD	Interview during field visit	03 Sep 2012 – 08 Sep 212	
		Otim Moses		Senior Forester Global Woods
		Blessing Mutambukye		Forester Global Woods
		Asiimwe Johs Paul		Forester Global Woods
		Ariho Alex Nelson		Forester Global Woods
		Francois Jacobs	Estate Manager Global Woods	
2.	global-woods AG	PDD_KFR_CFS, pdf PDD 2008 2b: PDD_KFR_CFS_2008.pdf, renamed, unchanged	Dec 2008	
3.	global-woods AG	PDD_KFR_CFS PDD pdf 2012 3b: PDD_KFR_CFS_2012_30112012 final version	18 Apr 2013	
4.	CarbonFix e.V.	CarbonFix Standard Version 02		
5.	CarbonFix e.V.	CarbonFix Standard Version 3.2	Dec 2011	
6.	TÜV SÜD, 2009	Certification-Report_KFR_CFS pdf, Validation Report	2009	
7.	global-woods AG	Certification-Report_KFR_CFS 2009 pdf, Certification Report	2009	
8.	UNFCCC	LULUCF good practice Anx_3A_1_Data_Tables	2003	
9.	global-woods AG	06-01_Inventory report-2011_Aug 2011.pdf	Aug 2011	
10.	Alder et al. 2003	06-02_Kikonda-Alder-model_May 2003.pdf, Yields of Eucalyptus and Carribean Pine in Uganda, Denis Alder et. Al. 2003	2003	

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Ref. No.	Author/Editor/ Issuer	Title, Type of Document	Date
11.	global-woods AG	06-03_Kikonda - summary inventory+site index update 25032012.xls 11b 06-03_Kikonda - summary inventory+site index update 06112012_Nov_2012_10.xls	Nov 2012
12.	global-woods AG	06-04_Calculation of Eligible Area 2012.xls	2012
13.	global-woods AG	06-05_SOP - Inventory 7.01.11_BM	Jan 2011
14.	global-woods AG	06-06_Inventory results_200811_BM, zip-file	Aug 2011
15.	global-woods AG	06-07_Calculation Precision level Inventory 2011 KFR 15b. 06-07_KFR_Precision level_of_Inventory 2011_CFS_2012_Nov_2012_TD	Nov 2012
16.	global-woods AG	Eligible areas for CFS 2012 shape file	2012
17.	global-woods AG	Reserve Boundaries shape file	2012
18.	global-woods AG	KML Dateien der neuen MU 2012 für CFS	2012
19.	global-woods AG	PSPs as of 15082011, shape file of sample plots	2012
20.	Alder	yield model xls, yield model Carribean Pine in Uganda	2012
21.	Paul Jacovelly	Kikonda - planting trees law not enforced. Paul Jacovelly, Chief Technical Advisor of the National Forest Authority of Uganda (NFA) (16.09.2004, Kampala)	Sep 2004
22.	global-woods AG	Initial Management Plan for IUE Kikonda Forest Reserve, 1999	199
23.	Matthias Baur 2007	Soil description as the basis for soil classification, soil and site assessment and suitability evaluation for planting Pinus Caribaea and/or other species at the Kikonda Forest Reserve in the north-west of Uganda. August 2007, BSc thesis Matthias Baur	Aug 2007
24.	GAF Munich 2006	GAF_KFR_Eligibiliy.pdf, Summary of satellite image classification project, GMES Service Element Forest Monitoring (GSE FM), 4 Oct 2005-3 Oct 2006, carried out by GAF Munich.	Oct 2006
25.	global-woods AG	Management Plan for The Kikonda Forest Reserve for the Period 2007-2012, approved by National Forest Authority.	2012

List of Reference



Industrie Service

Ref. No.	Author/Editor/ Issuer	Title, Type of Document	Date
26.	The Republic of Uganda	'Kikonda - Secured land tenure - tree planting licence.pdf, Agreement to grow timber plantations in Kikonda forest reserve.	
27.	global-woods AG	SOP «Site Preparation» rev.	08 Mar 2011
28.	FSC	Certificate of FSC : FSC License Code: FSC-C102912, Certificate Code: SGS-FM/COC-009362 http://info.fsc.org/PublicCertificateDetails?id=a0240000006tLs3AAE	Apr 2012
29.	global-woods AG	Planted_area_2002-2008 shape file	2008
30.	global-woods AG	Planted_area_2009-2012 shape file	2012
31.	global-woods AG	Planted Area_2002-2008_Eligible_for_CFS shape file	2008
32.	global-woods AG	Planted Area_2009-2012_Eligible_for_CFS shape file	2012
33.	global-woods AG	06-09_CO2-Fixation_KFR_ according_Adler_and_site_index_2012_Nov_2012 Excel	Nov 2012
34.	global-woods AG	CFS_Kikonda_Inconsistencies_17.04.13. Word-file, Clarifications on areas	Apr 2013
35.	ClimateProjects/global-woods AG	Management-Unit_KFR_CFS.pdf	18 Apr 2013