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Validation Report

VALIDATION OF THE CARBONFIX-PROJECT: KIKONDA FOREST RESERVE REFORESTATION PROJECT

REPORT NO. 1196712

January 20, 2009

TÜV SÜD Industrie Service GmbH

Carbon Management Service
Westendstr. 199 - 80686 Munich – GERMANY

Industrie Service

Report No.	Date of first issue	Revision No.	Date of this revision	Certificate No.
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Subject: Validation of a CarbonFix Project

Accredited TÜV SÜD Unit:	**TÜV SÜD Contract Partner:**
TÜV SÜD Industrie Service GmbH Certification Body “climate and energy” Westendstr. 199 - 80686 Munich Federal Republic of Germany	TÜV SÜD Industrie Service GmbH Carbon Management Service Westendstr. 199 - 80686 Munich Federal Republic of Germany
Client: Global Woods AG 79244 Münstertal Germany	**Project Site(s):** Uganda

Project Title: Kikonda Forest Reserve Reforestation Project, Uganda

Applied Methodology / Version: General CarbonFix approach	**Scope(s):** 14 (UNFCCC)

First Version of project documentation:	**Final version of project documentation:**
First publication of project documents on the CarbonFix webpage (www.carbonfix.info): 2008-07-08 Version No.: 01	Last update of documents posted on the CarbonFix webpage (www.carbonfix.info): 2008-11-25 Version No.: 03

Emission Reductions: 213,368 $VER_{futures}$ (total, not annual)

(Calculated according to CarbonFix v2.0 requirements based on: 1. the expected mean CO_2 stocks in a reforestation with an 18 year rotation cycle; minus 2. Baseline, 3. Emissions and 4. Leakage).

Assessment Team Leader:	**Further Assessment Team Members:**
Martin Schröder	Hubertus Schmidtke

Summary of the Validation Opinion:

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

☐ The review of the project design documentation and the subsequent follow-up interviews have not provided TÜV SÜD with sufficient evidence to determine the fulfilment of all stated criteria. Hence TÜV SÜD will not recommend the project for registration by the CarbonFix standard organisation and will inform the project participants and the CarbonFix organisation on this decision.

Abbreviations

AR	Afforestation / Reforestation
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CR	Clarification Request
DNA	Designated National Authority
DOE	Designated Operational Entity
EB	Executive Board
EIA / EA	Environmental Impact Assessment / Environmental Assessment
ER	Emission reduction
FSC	Forest Stewardship Councel
GHG	Greenhouse gas(es)
KP	Kyoto Protocol
MP	Monitoring Plan
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
VVM	Validation and Verification Manual

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1 INTRODUCTION

1.1 Objective

The validation objective is an independent assessment by a Third Party (Designated Operational Entity = DOE) of a proposed project activity against all defined criteria set for the registration under CarbonFix Standard. Validation is part of the project cycle and will finally result in a conclusion by the executing DOE whether a project activity is valid and should be submitted for registration to the CarbonFix Standard Organisation. The ultimate decision on the registration of a proposed project activity rests at the CarbonFix Organisation.

The project activity discussed by this validation report has been submitted under the project title: Kikonda Forest Reserve Reforestation Project

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 activities the scope is set by

- the CarbonFix Standard in its most recent version,
- guidance documents provided by the CarbonFix Organisation,
- the AR-CDM additionality tool for afforestation / reforestation projects.

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

2 METHODOLOGY

The project assessment aims at being a risk based approach and is based on the methodology developed in the Validation and Verification Manual, an initiative of Designated and Applicant Entities, which aims to harmonize the approach and quality of all such assessments.

In order to ensure transparency, a validation protocol was customised for the project. TÜV SÜD developed specific checklists and protocols for the CarbonFix standard. The protocol shows in a transparent manner, the criteria (requirements), the discussion of each criterion by the assessment team and the results from validating the identified criteria.

The validation protocol serves the following purposes:

- It organises, details and clarifies the requirements a CarbonFix project is expected to meet;
- It ensures a transparent validation process where the validator will document how a particular requirement has been validated and the result of the validation.

The validation protocol consists of three tables. The different columns in these tables are described in the figure below.

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

Validation Protocol Table 1: Conformity of Project Activity and project documentation				
Checklist Topic / Question	***Reference***	***Comments***	***Draft conclusion***	***Final conclusion***
The checklist is organised in sections following the arrangement of the applied standard. Each section is then further sub-divided. The lowest level constitutes a checklist question / criterion.	*Gives reference to documents where the answer to the checklist question or item is found in case the comment refers to documents other than the project documentation.*	*The section is used to elaborate and discuss the checklist question and/or the conformance to the question. It is further used to explain the conclusions reached. In some cases sub-checklist are applied indicating yes/no decisions on the compliance with the stated criterion. Any* ***Request*** *has to be substantiated within this column*	*Conclusions are presented based on the assessment of the first version of project documentation available on the CarbonFix webpage. This is either acceptable based on evidence provided (☑),* ***or a Corrective Action Request (CAR)*** *due to non-compliance with the checklist question (See below).* ***Clarification Request (CR)*** *is used when the validation team has identified a need for further clarification.*	*Conclusions are presented in the same manner based on the assessment of the final version of project documentation available on the CarbonFix webpage.*

Validation Protocol Table 2: Resolution of Corrective Action and Clarification Requests			
Clarifications and corrective action requests	***Ref. to table 1***	***Summary of project owner response***	***Validation team conclusion***
If the conclusions from table 1 are either a Corrective Action Request or a Clarification Request, these should be listed in this section.	*Reference to the checklist question number in Table 1 where the Corrective Action Request or Clarification Request is explained.*	*The responses given by the client or other project participants during the communications with the validation team should be summarised in this section.*	*This section should summarise the validation team's responses and final conclusions.*

In case of a denial of the project activity more detailed information on this decision will be presented in table 3.

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

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 ensuring that the required skills are covered by the team. The Certification Body TÜV SÜD operates four qualification levels for team members that are assigned by formal appointment rules:

- Assessment Team Leader (ATL)
- Greenhouse Gas Auditor (GHG-A)
- Greenhouse Gas Auditor Trainee (T)
- Experts (E)

It is required that the relevant sectoral scope of the project activity has to be covered by the assessment team.

The validation team was consisting of the following experts (the responsible Assessment Team Leader in written in bold letters):

Name	**Qualification**	**Coverage of technical scope**	**Coverage of sectoral expertise**	**Host country experience**
Martin Schröder	**ATL**	☑	☑	
Hubertus Schmidtke	A	☑	☑	☑

Martin Schröder is appointed as Assessment Team Leader and GHG-Auditor by the certification body "climate and energy". He holds a masters degree in forestry and passed successfully internal training schemes in the field of auditing as well as the technical features of

landfill and energy related projects. Before entering the company, he worked in the field of development projects in the Amazon Region and managed forestry based carbon offset projects.

Hubertus Schmidtke is GHG auditor for forestry projects. He is an expert for forest inventory design with respect to monitoring of carbon pools in afforestation and reforestation projects. He has received extensive training in CDM related issues and participated in AR-CDM project assessments as a trainee auditor and technical expert.

2.2 Review of Documents

The first version of project documents made available by the client (via CarbonFix webpage on 8 July 2008) and additional background documents related to the project design and baseline were reviewed as initial step of the validation process.

A complete list of all documents and proofs reviewed is attached as Annex 2 to this report.

2.3 Follow-up Interviews

In the period of July 22 to 26, 2008 TÜV SÜD performed interviews on-site with project stakeholders to confirm selected information and to resolve issues identified in the first document review. The area included to the project boundary was visited as part of a field survey.

Persons interviewed during the on-site audits (Name, Position, Institution)

Matthias Baldus	Global Woods AG, Project Manager
Shedrack Kajura	Sustainable Use of Biomass (SUB) Ltd Director
Johannes Mokena	SUB Ltd Manger
Moses Otim	SUB Ltd Employee Nursery, Thinning, Pruning
Emanuel Muganza	SUB Ltd Emploee, research
Sediva Bigirueurenkya	Trainee, SUB Ltd

In regard to socioeconomic impacts the carried out analysis by the NGO “Kikonda Community Forestry Association” and their survey work was considered in the context of this audit. As part of the field visits of the audit team, selected intereviews were carried out with villagers in neighboring areas.

2.4 Resolution of Clarification and Corrective Action Requests

The objective of this phase of the validation is to resolve the requests for corrective actions and clarifications and any other outstanding issues which needed to be clarified for TÜV SÜD`s positive conclusion on the project design. The Corrective Action Requests and Clarification Requests raised by TÜV SÜD were resolved during communication between the client and TÜV SÜD. To guarantee the transparency of the validation process, the concerns raised and responses that have been given are summarised in chapter 3 below and documented in more detail in the validation protocol in Annex 1.

2.5 Internal Quality Control

As final step of a validation the validation report and the protocol have to undergo and internal quality control procedure by the Certification Body “climate and energy”, i.e. each report has to be approved either by the head of the certification body or his deputy. In case one of these two persons is part of the assessment team approval can only be given by the other one.

The decision rests at TÜV SÜD’s Certification Body whether a project will be submitted for requesting registration by CarbonFix or not.

In this particualar case, the review process by the Certification Body was carried out by Mr. Javier Castro, Head of the Certification Body, using Mr. Gregor Kochaniewicz, as an Expert in the field to cover the scope.

3 SUMMARY OF FINDINGS

In total, the assessment team expressed 9 Clarification Requests and 10 Corrective Action Requests. The definition of risk procedure by the standard organisation was initially identified as an outstanding issue. All Requests were closed in the course of the audit. Compare Annex 1, table 2 for the details of the closure process. Furthermore, 2 Forward Action Requests have been posed, which should be resolved until the first verification.

In the following, main findings of the project audit in regard to the project design and standard compliance are summarized:

Boundary and eligibility of lands:

The project includes an eligible area of 7,321 ha of which an area of 921 ha has been planted as part of the project activity posterior to the confirmed project start of 1 October 2002. The audit team has been able to fully confirm these area estimates and the good practice applied in the compilation and gathering of area indications as well as the consistency with the national CDM definition of forest in Uganda.

Eligibility of lands for more than 10 years prior to project start (according to CarbonFix requirements) was confirmed by the project team through satellite image analysis, which is considered to follow best practice for such analysis work, and reconfirmed through sampled field assessments of the audit team during the onsite visit. According to the Designated National Authority (DNA) the following criteria defined the relevant forest threshold:·a minimum land area of 1ha, minimum tree crown cover of 30%, a minimum tree height of 5 m.

Considering further areas (wetlands, forest areas) which are part of the associated project activities but not included to the reforestation component and corresponding monitoring activities, the extended total project area consists of 12,182 ha (as per CarbonFix definition of project area).

The project areas have been documented to be under formal control and access of the project participant / owner is global-woods AG, Germany. The areas are legally owned by the Government of Uganda. This leads to the necessity that continued land access is reconfirmed with each verification.

Baseline

The project has applied a field assessment for the complete area considered eligible in order to estimate the baseline stocks in woody and non-woody vegetation as part of the relevant carbon pools aboveground and belowground biomass.

Only one baseline strata was subdivided which is considered acceptable in light of the profound analysis work based on remote sensing. Furthermore it was shown that the baseline study results comply with the uncertainty requirements as defined by the inventory guideline of CarbonFix. In average 32.8 tCO_2/ha have been estimated for woody biomass and 12.5 tCO_2/ha for non-woody biomass, including above and below ground components.

The data was calculated based on actual field estimates and the application of what has been assessed to be adequate and applicable default values (i.e. root to shot, biomass expansion factor, carbon fraction).

The methodological approach of CarbonFix does not indicate requirements on the assessment of baseline removals (by vegetation that would have stayed below the forest threshold). Based on the local site visits and the fact that only patches of non forest vegetation are in-

clude, the audit team concluded that baseline removals can be considered insignificant and that it is acceptable that they are set zero.

Expected actual net removals

- Carbon Sequestration

The expected carbon sequestration by the project activity has been estimated in the context of this validation only for those areas that were planted since project start 1. October 2002 (921 ha). Estimates of expected removals from reforestations on other eligible project areas (7,321) were not considered as this is not part of the current approach of the standard.

The calculations on the expected amounts of sequestered carbon were fully traced and found to be sustained with yield tables applicable to the sites and region as well as defaults for the relevant parameters used in carbon inventory (carbon fraction, root to shoot ratio, biomass expansion factor) which are applicable to the ecological setting of the project and conservative. Partially chosen defaults were adapted as a result of the audit. The estimates were based on a stratification of the project area.

In difference to other carbon standards, it is underlined that the CarbonFix approach does not calculate the (average) annual net removals over a defined crediting period but the total amount of "$VER_{futures}$" for a defined (project specific) timeframe. The main element for this calculation of "$CO_2Quantity$" is the mean stand volume per hectare likely to be achieved i.e. in a rotation cycle. Corresponding calculations were found to have been carried in line with standard guidance and as indicated above they were sustained by applicable yield tables and the estimates were considered to match local site conditions.

It is underlined that no verification of the actual removals by the already established reforestations was carried out as part of the present audit.

- Emissions (including biomass burning)

The default values for emissions and biomass burning have been applied in the calculation of the VERfutures as defined by CarbonFix. The discounts for emissions are applied in the calculations of VERfutures irrelevant to their actual occurrence in the project. No other significant emission sources have been detected in the context of the project audit.

- Leakage

Leakage from the displacement of activities has been considered. The following activities were found relevant: a) Fuelwood use, b. Charcoal burning, c) Livestock grazing. The leakage assessment included the entire eligible project area. The corresponding data was compiled based on surveys, which have been reviewed by the audit team. Corresponding evidence is considered credible. Local conditions have been assessed and considered adequately in the context of the leakage assessment.

The requirements as defined by the CarbonFix Standard are complied with.

Overview table on VERfutures (from www.carbonfix.info, accessed on 3 Dec 2003):

Management Unit	Area (ha)	$CO_{2\ quantity}$ ($CO_{2\ eq}$)*	Project Emis.* ($CO_{2\ eq}$)	Baseline*($CO_{2\ eq}$)	Leakage* ($CO_{2\ eq}$)	Biomass burned ($CO_{2\ eq}$)	$VER_{Futures}$ /ha	Buffer (30%)	$VER_{Futures}$ /MU	Main tree species
202	6	391	2	45	9	5	**330**	99	**1386**	Pinus oocarpa
203	16	391	2	45	9	5	**330**	99	**3696**	Pinus oocarpa
301	0	423	2	45	9	5	**362**	109	**0**	Pinus caribaea
302	22	427	2	45	9	5	**366**	110	**5632**	Pinus caribaea
401	0	440	2	45	9	0	**384**	115	**0**	Pinus caribaea
402	21	396	2	45	9	5	**335**	101	**4914**	Pinus oocarpa
501	20	370	2	45	9	5	**309**	93	**4320**	Pinus caribaea
502	0	440	2	45	9	5	**379**	114	**0**	Pinus caribaea
503	1	440	2	45	9	5	**379**	114	**265**	Pinus caribaea
504	75	440	2	45	9	5	**379**	114	**19875**	Pinus caribaea
601	308	387	2	45	9	5	**326**	98	**70224**	Pinus caribaea
701	129	387	2	45	9	5	**326**	98	**29412**	Pinus caribaea
702	142	387	2	45	9	5	**326**	98	**32376**	Pinus caribaea
703	53	387	2	45	9	5	**326**	98	**12084**	Pinus caribaea
801	128	387	2	45	9	5	**326**	98	**29184**	Pinus caribaea
	921						**5183**		**213368**	

* = calculated based on average stem volume in the rotation period of 18 years as per Option 2 - Rotation Forestry, defined in Item 3.3.7 of CarbonFix v.2.0.

Additionality:

The project activity has seen an early start back in 1 October 2002. The starting date was documented and sustained internally by the date of first plantings. Consideration of carbon finance prior to project start was demonstrated through a Memorandum of Understanding with authorities in Uganda on the specific project from 1 August 1998 (compare Information Reference List). While this document was signed only shortly after the definition of the Kyoto Protocol, it is credibly documented that the corresponding innitiative considered carbon finance in this stage already.

In regard to the alternatives to the project scenario, only the historic land uses cattle-grazing and charcoal burning exist as credible alternative to the project. These alternatives do not face any barrier and could have prevailed.

The project compiled an investment analysis which resumed that the IRR of the project over 36 years (2 rotation periods) would result in a return of 5.4% without carbon consideration. The calculation and the corresponding assumptions have been validated. The scenario was compared to one including carbon income, leading to an IRR of 12.1 %. Long term financial calculations in the context of a country with partially instable framework conditions may impact these estimates, which were nonetheless to be found sufficiently sustained for this

project setting. Hence, the applied input date was considered to be sufficiently sustained with evidence (compare Information Reference List)

In regard to regular discussion of the attractiveness of the project investment, the lowest bond rate available (for a 5 year period) of 13.98% was considered. Corresponding evidence was reviewed (compare Information Reference List). A decrease of 2.0% of average interest rate of Uganda state bonds was applied (for same period) due to a decrease of the value of the currency / USH compared to US$. A return of 11.98% was anticipated. Thus, it is considered credibly that the project scenario without sales of VERfutures is significantly less attractive.

Furthermore, the project team indicated that the non-availability of long-term loans for investments in forestry projects in Uganda from regular financing sources constitutes a barrier.

In regard to the common practice test sources on national forest cover indicate a total plantation area of only aprox. 33.000 ha in Uganda (compare Information Reference List). While recognizing uncertainties in these numbers, it is considered evident that reforestation projects are not commonly found in Uganda.

In conclusion, the audit team considered the project to comply with additionality requirements as per CDM.

Monitoring:

The monitoring plan is compliant with the Standard requirements.

However, the plan is considered to require further definition and specification in order to assure full data consistency and data availability at verification. The level of detail in the current definition of concrete parameters and monitoring frequencies, the consideration of uncertainties and QA/QC on the monitoring process can not fully assure that all relevant data is gathered ahead of a first verification. Hence, risks remain that data gaps emerge at verification.

This is considered to be related to rather broad requirements of the standard in this field.

Simultaneously to the audit, the standard organisation provided guidance on monitoring and forest inventories (compare table 2).

The following FARs have been posed in this context:

-Forward Action Request No.1

Buffer stripes along watercourses shall be controlled and in cases where they are not sufficient they shall be implemented

Forward Action Request No.2

The project boundary and the strata boundary require careful monitoring in order to have a verifiable data basis at verification. In general, the monitoring plan shall be further specified.

Environmental / social impacts and stakeholder consultation:

The standard requirements are considered to be met in this field. The environmental and social impacts of the project were analyzed by the project host. Corresponding evidence which sustains the environmental and social analysis as well as the execution of the stakeholder process has been reviewed (Information Reference List).

In regard to sustainability, the project and its documentation focus on the generation of net positive impacts through the generation of additional employment. This is considered credi-

ble while impacts on local inhabitants through changed land use settings can not be fully excluded. The stakeholder process was carried out in line with Standard guidance in this field.

4 COMMENTS BY PARTIES, STAKEHOLDERS AND NGOS

The project documents were published on the CarbonFix website.link As of 3 Dec 2008, no substantial comments have been received which would require consideration in the audit process.

5 VALIDATION OPINION

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

Kikonda Forest Reserve Reforestation Project, Uganda

Kikonda Forest Reserve Reforestation Project 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 stated criteria. In our opinion, the project meets all relevant CarbonFix requirements. Hence TÜV SÜD will recommend the project for registration by the Carbon Fix Organisation.

An analysis as provided by the applied CarbonFix approach demonstrates that the proposed project activity is not a likely baseline scenario. Emission reductions attributable to the project are hence additional to any that would occur in the absence of the project activity.

Given that the project is implemented as designed, the project is likely to achieve the estimated amount of emission reductions as specified within the version of project documents published on the CarbonFix webpage.

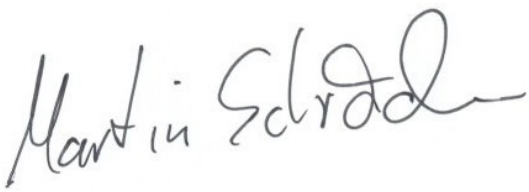
The validation is based on the information made available to us and the engagement conditions detailed in this report. The audit did not include a general assessment pre-defined CarbonFix methodology.

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

Munich, 2009-01-20

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

Munich, 2009-01-20



Assessment Team Leader

Annex 1: Validation Protocol

Checklist for the "CarbonFix Standard, Version 2.0"
Project Title: Kikonda Forest Reserve Reforestation Project
Date of Completion: 3rd December 2008
Number of Pages:21

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CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
1. Preconditions					
1.1. Eligibility					
1.1.1. Is sufficient evidence given to the certification body to be able to confirm that the planting area is eligible according to the requirements of CFS by:					
a) Is information given that the area had not been a forest for a minimum of 10 years before the project start or since the 1st of January 1990?	6	FV, DR	Yes a satellite image classification of 1990 data was conducted. The compiled study follows good practice in remote sensing analysis. A recognized firm carried out the corresponding study. The file GAF_KFR_Eligibility.pdf does not include a cover and a table of contents and authors and date of the study. **Corrective Action Request No.1.** Complement labeling of key relevant maps on historic land use / eligibility.	CAR1	☑
b) Is information given that the area is not wetland or protected area according to the CFS definitions?	6	FV	Yes the mentioned study on eligibility is providing the information.	☑	☑
1.1.2. Is the eligibility of the project area proved by groundtruthed satellite images, aerial photographs, official maps or land-use records?	6, 25	FV	The eligibility is proved by satellite image classification (images from 1990 onwards) and it was checked onsite before any project activities are conducted. This is important for small forest patches which have not been detected by the digital satellite data classification.	☑	☑
1.1.3. Is sufficient evidence given by the project owner that the project activity will lead to a forest according to the national forest definition?	4, 5	FV	Initial forest management plan exists. Soil mapping according to the available Phd study give clear evidence, that the area can be expected to be covered by forest according to the national definition.	☑	☑
1.1.4. Is information about tree species which shall be use in	4	FV	Yes. Tree species are proposed by scientists not	☑	☑

* DR = Desk review, IV = Interview, FV= Field Visit

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
the project activity given? Are the species conforming to the CFS?			part of Global Woods.		
1.1.5. Is sufficient evidence given that the planting area has not been deforested in order to generate CO2 –certificates at a later time?	3, 6	DR, FV	Yes. As explained in the project documentation and proved in the Satellite Image Classification Projects, the deforestation had occurred 10 years prior to project start.	☑	☑
1.1.6. Is sufficient evidence given, if not more than 10% of the project planting area is agriculture area for food production at project start?	6	DR, FV	Satellite image project does not show any agricultural activities. Even in the used scale, 10% would have been detected. Also field visits proofed that.	☑	☑
1.1.7. Is sufficient evidence given, if the project activity is not an agroforestry project?	7	IV, FV	The management plan does not include any agroforestry activity. Confirmed through field visit	☑	☑
1.1.8. Is it proved that the project start was after the 11th of December 1997 (adoption of the Kyoto Protocol)?	8	DR, FV	Tree planting licence from 2001, first trial plantations September 2002. Project start is March 2003.	☑	☑
1.2. Additionality					
1.2.1. Is sufficient evidence given to confirm that the project is additional according to the requirements of CFS.	8	DR	The project was initiated from the beginning on as carbon sequestration project. See CAR 9 and responses.	CR 9	
1.2.2. Is additionality proved by Option 1 or 2?					
1.2.3. Option 1: Is an official statement of a bank which gives evidence that the *project* would not be feasible without the additional financial means from the sale of *VER*$_{futures}$ given? And does the statement base on a realistic cash-flow which has been attached to the document.	3	DR	Not applied	☑	☑
1.2.4. Option 2: Has an analysis of additionality been carried out under the UNFCCC guideline?	3	DR	Option 2 was chosen. The UNFCCC addtionality tool is applied. **Clarification Request No. 1.** In order to demonstrate compliance with UNFCCC requirements, the fulfillment with the additionality tool remains to be demonstrated. A corresponding document /section that reflects on the stepwise	☑	☑

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			approach of the tool remains to be elaborated. Relevance guidance needs to be provided.		
1.2.5. If the project is a non-profit one, has Option 2 been applied?	-	-	Not applicable	☑	☑
1.2.6. Has the responsible state authority approved that the forestation on the *planting area* is not mandatory by any law or regulation **or** if it is mandatory has evidence be given that these laws or regulations are systematically not enforced?	9	IV, FW	The area was dedicated for tree planting since 1963. But under state forest administration this only was resulted in minor planting activities. Thus, it is concluded that the areas would not have been reforested due to regulative requirements as these are not inforced.	☑	☑
1.2.7. Is evidence given, that a forest would not establish itself on the *planting area* under the foreseeable land-use, and without the *project* activities?	3	FV, IV	Yes. As described in the project documentation field visit showed the ongoing degradation process: Grazing and charcoal production, degradation to shrub and grassland.	☑	☑
1.2.8. Is additionality assured for the entire project, even if parts of the project are planted without generating $VER_{futures}$ (e.g. because the land is not eligible)?	6	IV	Some areas to be planted are classified as not eligible because they were old plantations that were harvested after 1990. In the satellite classification they were detected as "natural forests". They are excluded from the "plantation area" of the project and are considered not eligible.	☑	☑
2. Sustainable Forest Management					
2.1. Environmental Aspects					
2.1.1. Is sufficient evidence given to confirm the long-term net positive ecological impact of the project?	3	DR, FV	The 30% conservation area underlines the targeted net positive impact of the project. Monitoring of the biodiversity component is planned.	☑	☑
2.1.2. Description of environmental conditions:					
Have the following parameters been described adequately? a. Soil: nutrients, erosion b. Water: quality, quantity c. Biodiversity: plants, animals d. temperatures, rain	3	DR	There is reference given to studies on the biodiversity. **Corrective Action Request No.2.** Main results of studies on the natural and biodiversity parameters shall be included into the	CAR	☑

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			PDD (item 2.1.2 of checklist).		
Is evidence given, that positive impacts are enhanced and negative impacts are mitigated – respectively avoided – if they are not essential for the project activities? (2.1.3. For point d. no description of impact must be given)	3	DR	See above	CAR2	☑
2.1.4. Are pests managed in an environmental friendly way and preferably without the use of chemical products?	3	IV	No pests are expected to occur in relation to the plantations.	☑	☑
2.1.5. Is the use of herbicides and insecticides or will it be documented? Is a list of all applied products included in the document?	3	IV	Glyphosphate is used. The use is documented in a chemical register, where is documented how many liters go to each one ha plot.	☑	☑
2.1.6. If chemicals are used, is there an adequate training for persons working with the chemicals and is proper equipment provided to minimize environmental impacts?	11, 12	IV	Written instructions are available. Staff is trained in application.	☑	☑
2.1.7. Is waste disposed in an environmental friendly way?	3	IV, FV	Degraded waste is deposed in trash pits without contact to ground water. Non degradeable waste is decomposed.	☑	☑
2.1.8. Have 15 m wide buffer strips along permanent or temporary watercourses (streams, rivers, wetlands, etc.) been implemeted? These buffer areas are part of the nature conservation area.	2	FV	The buffers are mainly implemented correctly. In some cases the buffers are found too narrow. **Corrective Action Request No.3.** Compliance with Buffer requirements (item 2.1.8) shall be taken to the monitoring (plan) and revisited at verification. **Forward Action Request No.1** Buffer stripes along watercourses shall be controlled and in cases where they are not sufficient they shall be implemented by cutting down the trees.	CAR3	☑
2.1.9. Have any flooding irrigation, regular irrigation or drainage been executed?	3	FV	No type of irrigation was applied.	☑	☑
2.1.10. Have been carried out any area-wide ploughing during planting activity? (Not allowed, only restricted to planting holes)	3	FV	No planting areas have been ploughed.	☑	☑
2.1.11. Have been used any genetically modified tree	13,14	FV	Origin of the seeds is declared from stands of pure	☑	☑

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
species? (Not allowed)			natural Pinus Carribaea. No GMO applied.		
2.1.12. Have been used species in mixed stands with a selective harvesting method? (prefered)	3	FV	No selective harvesting. Plantation forests schemes are applied. With planting, thinning, and final clear cut after rotation period.	☑	☑
If not, is it justified by the project owner why no mixed stands were planted according to: -choice of tree species and/or -silvicultural system and/or -harvesting method	7	IV	There are no experiences with mixed plantations. The plantation scheme follows the advice of the National Forestry Authority (NFA).	☑	☑
2.1.13. Are all species site-adapted, also under changing climate conditions (considering the latest IPCC report)?	3, 7	DR, IV	The choice on species is based on scientific sources: management plan approved by the NFA, Masterthesis on soils in Kikonda	☑	☑
2.1.14. Have been included signed statements of: a. a responsible forestry, wildlife or environmental authority b. a registered NGO in the environmental sector including the following confirmations: i) that the project operates according to national environmental laws, ii) that no native endangered (EN) and critically endangered (CR) species from the IUCN Red list are being threatened due to project activities, and iii) that the project has a net positive impact on the environment	3, 7	DR, IV	The NFA confirmed that the operation is according to the law. Also a confirmation by KICOFA Kikonda Community Forestry Association is available on the red list aspect. KICOFA is also conducting plantations and is only locally active. **Clarification Request No. 2.** A confirmation by a further environmental NGO that no endangered species are expected to be threatened and that the project has net positive impacts.	CR1	☑
2.2. Socioeconomic Aspects					
2.2.1. Has sufficent evidence been given to the certification body to be able to confirm long-term net positive socioeconomic impact?	3	DR, IV	It is credibly documented that directly and indirectly the projects is generating hundreds of new jobs in the region.	☑	☑
2.2.2. Have been described the current situations of the following parameters, together with possible impacts caused by the project?					
a) Creation of employment - management	3, 7	IV	The project is causing significant employment to the region. Employment by the project is indicated with	☑	☑

* DR = Desk review, IV = Interview, FV= Field Visit

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
- employees - contractors - workers			currently / long-term Management 3/4 Employees 10/15 Contractors 10/15 Workers 333/400 The employment is substantial in the region and it helps also to reduce the pressure to the project with illegal activities like grazing and charcoal burning.		
b) Capacity building - management - employees - contractors - workers	3, 28	IV	Capacity building on all levels is needed to run the overall project activity and corresponding measures are carried out on a continous basis. Internal Management Procedures are defined.	☑	☑
c) Neighbourhood - displacement of people - welfare activities	3	IV	Global Woods supported the creation of the local NGO KiCoFa to encourage and to enable people to plant trees also on their private land.	☑	☑
Is evidence given that positive impacts are enhanced and negative impacts are mitigated - respectively avoided, if they are not essential for the *project* activities?	3	IV	No explanation on the issue of possible negative impacts is given, because those are assumed not to occur. **Corrective Action Request No.4.** A statement and analysis regarding possible negative impacts shall be included into the PDD.	CAR 4	☑
2.2.3. Is a first aid kit accessible for all workers?	3	IV	Yes. First Aid Kits are provided. Training courses in first aid are conducted. Meetings each month with all workers were held in the intial phase of implementation once validation was carrid out. .	☑	☑
2.2.4. Are workers able to organize themselves and voluntarily negotiate with their employers?	3	IV	Workers are employed by contractors - not by Global Woods. See CR below. Unions are not present in the rural areas. In principle the workers are free by law to organize themselves. No indications were fouund that the workers are not free to negotiate.	☑	☑

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
2.2.5. Is all equipment (tools, machines, substrates, etc.), including those of the *contractors*, be in a safe working mode?	3	FV	Yes. Tools, machines, substrates etc. are provided by the project to the contractors.	☑	☑
2.2.6. Have proper protective equipment and training of the *workers* been implemented - especially when chemicals are used?	11	IV	Yes. A written instruction on the application of herbicide is existing and workers are trained.	☑	☑
2.2.7. Are any children under the age of 16 working for the *project*? (not allowed)	3	IV	At the validation, no such young workers were found to be employed.	☑	☑
2.2.8. Does the working contracts clearly define the following parameters?					
For employees: - Working hours and leave (holiday, sickness and pregnancy) - Duties - Salary - Modalities on health insurance - Modalities on the termination of the contract	3	IV	Permanent employees of Global Woods have regular contracts of employment.Local workers are subcontracted. See CR below.	☑	☑
For contractors: - Tasks (quantity, quality, time) - Payment - Modalities on the termination of the contract	3	IV	The relation between Global Woods and contractors shall be described in the projecct documentation. **Clarification Request No. 3.** The relation between Global Woods and subcontractors that employ additional workers shall be described in the PDD. This shall include a description of the contractual relations with short term workers active for the project activity.	CR 2	☑
2.2.9. Are the workers from the area around the project? (preferably)	3	IV	Yes. The very most are form the neighborhood with walking distance to work	☑	☑
2.2.10. Have spiritual, religious, or other socially important places within the *project area* been treated in consensus with the concerned people?	3	IV	No spiritual, religious, or other places of major social importence places are identified in the project area.	☑	☑

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
2.2.11. Are *Neighbors* able to address their concerns to the *project owner*?	3	IV	Yes. Individually possible, through KiCoFa. **Clarification Request No. 4.** The processes in place to allow stakeholders to address concerns shall be provided and documented in the PDD.	CR3	☑
2.2.12. Is it clearly defined according to concerns of neighbors: a) How decisions which are solving concerns are undertaken? b) How results of these decisions are implemented in a cooperative way.	3	IV	The procedures are described and the responsible persons are indicated. The Monday morning meeting is the central event for that.	☑	☑
2.3. Forest Management					
2.3.1. Is sufficient evidence given to the certification body to be able to confirm that the project bases itself on the principles of sustainable forest management?	4, 7	DR; FV, IV	The management plans clearly show the target of sustainable forest management. It is also a precondition for the contract on land use.	☑	☑
2.3.2. Are the objectives of the projects described?	3	DR, FV	The objectives are described: - sustainable sequestration of CO2 - production of wood - conservation of biodiversity - improvement of economical situation of surrounding areas.	☑	☑
2.3.3. Are the following figures included in the document? a) Area (ha) of the *project area* b) Area (ha) of foreseen *planting area* c) Area (ha) of foreseen *eligible planting area* d) Area (ha) of *nature conservation area*	3	DR, FV	The figures are included in the document. Ad a) The basic contract with the Republic of Uganda indicates 12'186 ha, the calculation of the area according to the coordinates delivered by NFA resulted in 12'181 ha. This figure was used for management purposes. The difference is technically caused and negligible. Ad b), c), d): Satellite data classification delivered the figures for nature conservation area. The remaining areas was planting area out of which that one part of	☑	☑

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CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			that carried plantations before was indicated as not eligible.		
2.3.4. Are the borders of the *project area*, *planting area(s)*, *management units* and *nature conservation area(s)* clearly visible in the field?	3	DR, FV	Yes. Basis is a one ha grid. Each one ha plot is marked with a pole in the south west corner, with the number of the one ha plot written on it. The one ha plots are aggregated to 25 ha blocks. Those blocks are separated with fire strips. Nature conservation areas like swamps differ with vegetation and soil type. The actual area planted and any adaptation of boundary (i.e.due to not planted areas) remains to be confirmed with verification. **Clarification Request No. 5.** Include summary of boundary definition process to PDD, including role of satellite imagery, GPS and later adaptation posterior to planting.	☑	☑
Management of Nature Conservation Area					
2.3.5. Is a description of the selected IUCN management category(ies) and its (their) implementation for the *nature conservation area(s)* included in the document?	3	DR	Yes. The categories are included.	☑	☑
Have one or several of following categories been selected: I, II, III, IV or V – following the guideline 'IUCNcategories'?	3	DR	Category IV was selected	☑	☑
Do the *nature conservation area(s)* consist of different ecotypes (bush, grassland, swamp, etc.).	3	DR, FV	Natural forests and wetlands (Swamps) are the protected ecotypes. This is not included to carbon accounting.	☑	☑
2.3.6. Are there any patches of the *non-eligible area that are* forests, wetlands or protected areas larger than 1 hectare at the *project* start? If yes they become part of the *nature conservation area*.	3, 4,7	DR, FV	All forests at project start, all wetlands are protected.	☑	☑
Management of Planting Area					

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
2.3.7. Have been described the following characteristics about the tree species planted on the *eligible planting area*?					
a) Origin and distribution of the tree species b) Provenance of the seeds c) Main purpose / use of trees d) Possible pests and diseases e) Time when forest products are foreseen to be used	3, 13,14	DR	The characteristics are described; Provenience of the seeds of Pinus Carribaea is proven in written form.	☑	☑
2.3.8. Have the following steps of the technical implementation of the project been described? a) Nursery b) Land preparation (incl. Lining out / spacing) c) Planting d) Beating up (replacing of the seedlings) e) Maintenance f) Pruning g) Thinning h) Harvesting	15	DR	There are detailed descriptions and instructions on all phases of the technical implementation available. They are considered to satisfy the requirements of the standard.	☑	☑
Management units					
2.3.9. Have the following information been submitted for each management unit? - Start of the planting, or start of protection (in case of natural regeneration) - Tree species used - Area (ha) - Foreseen *eligible planting area* (ha) - GPS coordinates of a point within the *management unit* - Future quantity of stored CO_2 (tCO_2/ha) *Chapter 'Future CO_2-fixation'* - Fertilizer application (kg of N/ha) *Chapter 'Project Emissions* - Baseline CO_2 (tCO_2/ha) *Chapter 'Baseline'*	16	DR	The Management unit is the one ha plot. All Management information is related to this unit and available in a data base. This is also accessible in the internet.	☑	☑

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
- Leakage (tCO_2/ha) *Chapter 'Leakage'*					
Maps and Locations					
2.3.10. Have the following maps been provided as JPG? a) The location of the *project's* country. b) The location of the *project* area(s) within the country. c) The *nature conservation area(s).* d) The foreseen *planting area(s).* (eligible and not eligible areas must be differentiated) e) The *management units.* (eligible and not eligible areas must be differentiated) f) The *neighbors* around the *project* area. g) The topography of the *project* area. (optional) h) The soil properties of the *project* area. (optional)	3,30	DR, IV	All required maps are available with the management unit and on the internet. **Corrective Action Request No.5.** The source of the map information (website) on country, project area, nature conservation area neighbors etc. shall be indicated in the project document.	CAR 5	☑
2.3.11. Are the maps from point c) to h) GIS maps? Are they - georeferenced, and Do they visibly include the following information? - Name of the *project* - Printing date - Scale - Direction of North - Legend - Used GPS coordinate system - Infrastructure (roads, houses, etc.), and rivers	3, 30, 31	DR, IV	All required maps are available and the comply with the requirements. **Corrective Action Request No.6.** The source of the maps (website) shall be indicated in the project document. **Corrective Action Request No.7.** Project name and printing date shall be indicated on the maps.	CAR 6 CAR 7	☑
Are the GIS-shapefiles available for the Certification body?	31	DR, IV	Yes. ArcGIS is used as GIS and shape files are available.	☑	☑
3. CO_2 - Fixation					
3.1.1. Has been sufficient evidence given to the certification body to be able to confirm that the variables used for the calculation follow a conservative approach and that the amount of $VER_{futures}$ has been accurately calculated according to the CFS formulas?	3	DR	See below. By the finalisation of the audit the corresponding software on calculations was available on the Carbon Fix webpage.	☑	☑
3.2. Calculation of $VER_{futures}$					☑

* DR = Desk review, IV = Interview, FV= Field Visit

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<table>
<tr><th>CHECKLIST QUESTION</th><th>Ref.</th><th>MoV*</th><th>COMMENTS</th><th>Draft Concl</th><th>Final Concl</th></tr>
<tr><td>3.2.1. Has the right formula according to the methodology been applied for determining the amount of VER futures?</td><td>3, 20, 21</td><td>DR,</td><td>Yes. The right formula was used.</td><td>☑</td><td>☑</td></tr>
<tr><td>3.2.2. Has the formula been used individually for every management unit?</td><td>3, 20, 21</td><td>DR</td><td>Yes. The management units were grouped into strata according to planting season, species, site index.</td><td>☑</td><td>☑</td></tr>
<tr><td>3.2.5. Is the unit for all variables tCO2/ha?</td><td>3, 20, 21</td><td>DR</td><td>Yes CO2/ha was used.</td><td>☑</td><td>☑</td></tr>
<tr><td>3.2.6. Are the following carbon pools selected for calculation of variables for Future CO2-fixation, baseline and leakage?

<table>
<tr><th colspan="3">Carbon Pools</th><th>Examples</th><th>Future CO_2 fixation</th><th>Baseline</th><th>Leakage</th></tr>
<tr><td rowspan="5">Aboveground</td><td rowspan="2">Woody</td><td>Living Biomass</td><td>Stem, bark, foliage and branches</td><td>Selected</td><td>Selected</td><td>Selected</td></tr>
<tr><td>Dead Biomass</td><td>Dead trees or branches</td><td></td><td></td><td></td></tr>
<tr><td rowspan="2">Non-woody</td><td>Living Biomass</td><td>Grass</td><td></td><td>Selected</td><td></td></tr>
<tr><td>Dead Biomass</td><td>Dead grass, litter and seeds</td><td></td><td></td><td></td></tr>
<tr><td rowspan="4">Belowground</td><td rowspan="2">Woody</td><td>Living Biomass</td><td>Roots</td><td>Selected</td><td>Selected</td><td></td></tr>
<tr><td>Dead Biomass</td><td>Died off roots</td><td></td><td></td><td></td></tr>
<tr><td rowspan="2">Non-woody</td><td>Living Biomass</td><td>Grassroots</td><td></td><td>Selected</td><td></td></tr>
<tr><td>Dead Biomass</td><td>Died off grassroots and organic soil</td><td></td><td></td><td></td></tr>
<tr><td colspan="3">Wood products</td><td>Construction timber or furniture</td><td></td><td></td><td></td></tr>
<tr><td colspan="3">Wood as renewable energy</td><td>Replacement of oil or coal</td><td></td><td></td><td></td></tr>
</table></td><td>3, 20, 21</td><td>DR</td><td>Yes the carbon pools indicated were selected.

Based on the evidence reviewed for the net planting area (wetlands are i.e. excluded), it is considered conservative to omit other pools.</td><td>☑</td><td>☑</td></tr>
<tr><td>Parameters for CO2-fixation in biomass
<table>
<tr><th>Parameter</th><th>unit</th><th>listed</th></tr>
<tr><td>Tree form factor</td><td>d.l.</td><td>0.42</td></tr>
<tr><td>Tree hight</td><td>m</td><td></td></tr>
<tr><td>BHD</td><td>cm</td><td></td></tr>
<tr><td>BEF</td><td>d.l.</td><td>0.42</td></tr>
<tr><td>RSR</td><td>d.l.</td><td>0.23</td></tr>
</table></td><td>17, 18</td><td>DR, IV</td><td>All parameters were taken from tables of the GPG according to the Standard and from Alder et. al 2003</td><td>☑</td><td>☑</td></tr>
</table>

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CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
Wood density: t dm/m³ = 0.51; Carbon fraction (0.5): d.l. = 0.5; *add. for baseline*: fresh non-woody biomass: d.l.; Dry-to-wet ratio: d.l.; RSR: d.l.					
Conservative approach					☑
Does the parameter derive from available scientific sources?	17, 18	DR, IV	Yes. The parameters from adequate sources like Good Practice Guidance (GPG) by IPCC.	☑	☑
Does the parameter lead to a conservative calculation approach? Like: a) the future CO2-fixation must unlikely to be overestimated, and b) the project emissions baseline and leakage must unlikely to be underestimated.	17, 18	DR	Yes. The default values from GPG were taken and a very recently finished study on yield of Pinus Carribaea was used.	☑	☑
3.3. Future CO2-fixation					
3.3.1. Has a *management unit* specific and scientifically based growth-model been used to determine the future CO_2-fixation? Is a description of this growth-model given?	17	DR	Yes. A very new growth model for Pinus Carribaea in Uganda was used. It provides growth curves for different site conditions (Site index)	☑	☑
Does the growth-model cover: - in case of selective harvesting or conservation forest, at least the time period up to the forest reaches its equilibrium Stem volume? - in case of rotation forestry, at least the time period of the first rotation?	3, 20, 21	DR, IV	Yes the growth model covers the whole lifetime of forest stands and as such one whole rotation cycle.	☑	☑
3.3.2. If a forest inventory (at least before every certification process) has been conducted has the growth model been adapted corresponding to its results?	3, 20, 21	DR, IV	An inventory of the planted areas was conducted. The inventory data were used to chose the correct site index of the model.	☑	☑

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
Has the inventory be executed according to the "Inventory" guideline?	19, 20	IV, FV	Yes. The Guidelines were followed.	☑	☑
3.3.3. For the conversion to tons of CO2, has the chapter 'Conversion Procedure' and 'Conservative Approach' be followed.	3, 20	DR	Yes. The Procedures were followed accurately.	☑	☑
3.3.4. Has the project owner chosen one of the following methods (options) to determine the future CO2-fixation?	3	DR, IV	Yes, Option 2 was followed.	☑	☑
3.3.5. **Option 1:** "Selective harvesting or conservation Forest"				☑	☑
In case of selective harvesting or conservation forest the future CO_2-fixation is based on the equilibrium Stem volume. If the equilibrium Stem volume is not reached by year 50, the future CO_2-fixation is calculated by the maximum Stem volume within this first 50 years.	-	-	N/A	☑	☑
3.3.6. Does the project owner gives evidence with all aspects of its project that the aim of the project is to use the forest with a selective harvesting regime or to establish a conservation forest?	-	-	N/A	☑	☑
3.3.7. **Option 2:** "Rotation Forestry"					
In case of rotation forestry, the future CO_2-fixation is based on the mean Stem volume during the first rotation period. If the first rotation period takes longer than 50 years, the future CO_2- fixation is calculated by the mean Stem volume within this first 50 years.	3, 20, 21	DR	The mean stem volume of the rotation period was taken for CO2 fixation calculation of Pinus caribea. Consistency of sites characteristics and yield tabels is considered to exist. Actual sequestered amounts will depend on onsite measurements.	☑	☑
3.4. Project emissions					
3.4.1. To account for *project* emissions, have 0.5% of the *projects* CO_2-fixation been deducted due to the use of fossil energy within the *project* (machines, flights, etc.)?	3	DR	Information on project emissions is included in the calculation which are based on a content management system and cannot be validated. **Corrective Action Request No.8.** A statement on the fact that 0.5% of the project fixation are deducted due to use of fossile fuel with	CAR 8 CR 5	☑

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CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			the project shall be sustained and included in the PDD. **Clarification Request No. 6.** Software was not fully accessible. Access to the content management system to be provided. Thus Emissions estimates from fuel were not fully tracable.		
3.4.2. In case fertilizer is used, have 0.4 tCO_2 per kg of nitrogen (N) been deducted?	3	DR; FV	No fertilizer is used. **Corrective Action Request No.9.** A statement on the non use of fertilizer shall be insert into the PDD	CAR 9	☑
3.5. Baseline					
3.5.2. Have the woody and non-woody living biomass values been determined according to the best available scientific references? Do they follow the following order? 1) local default values 2) national default values 3) international default values	21	DR, IV	To calculate the baseline an inventory of the pre existing biomass was conducted. The additional calculations were based on international GPG IPCC values. It is underlined that the baseline vegetation was set zero in regard to future removals. This is currently not fully covered by the standard, but in line with actual field conditions witnessed during the onsite visit for the specific planting areas. **Clarification Request No. 7.** Clarify the availability or non-availability and the sources reviewed in regard to local and national valued for woody and non-woody biomass.	CR 6	☑
3.5.3. For the conversation of default values into tCO2 has been used the 'Conversion Procedure' and 'Conservative Approach'?	21	DR, IV	The conversion procedure is described.	☑	☑

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CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
3.5.4. In case the baseline biomass is burned on the field for the purpose of land preparation, has an increase of 10% of the baseline emissions calculated?	3	DR, IV	Thick stems of the shrub is used for charcoal production. The other biomass is burnt on site. A 10% increase of the baseline emissions were not calculated. **Clarification Request No. 8.** Emissions from Biomass burning need to be clarified. This is part of the calculations of the content management system / software and was not fully accessible.	CR 7	☑
3.6. Leakage					
3.6.4. Has the project owner justified his selection of leakage emissions from the following categories: a) fuel wood use b) charcoal burning c) timber harvesting d) agricultural farming e) resettlement f) livestock grazing	3	DR, FV, IV	Categories a), b) and f) were taken into consideration, an explanation on why c), d) and e) were not considered is provided. A questionnaire was used in 22 villages. This estimate constitute the date sources for leakage estimates. Leakage estimates are tracable. **Clarification Request No. 9.** Templates and evidence for leakage estimates are to be provided.	CR 8	☑
3.6.6. According to leakage by a),b) or c) has been used the right formula to calculate the leakage?	3	DR, FV, IV	Yes the correct formulae were used.	☑	☑
3.6.7. According to leakage by d) or e) has been used the right formula to calculate the leakage?	3	DR, FV, IV	Yes the correct formulae were used	☑	☑
3.6.8. . According to leakage by f) has been used the right formula to calculate the leakage?	3	DR, FV, IV	Yes the correct formulae were used	☑	☑
4. Permanence					
4.1. Management Capacity					
4.1.1. Is a list of the management staff included to the document and does it include following information?	28	DR, IV	Yes a list on management staff with the relevant information has been compiled and has been made	☑	☑

* DR = Desk review, IV = Interview, FV= Field Visit

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
- Educational level - Work experience - Duties - Type of employment - Title - GPS and GIS know-how			available.		
4.1.2. Is the *management* structure be sufficient to the extent of the work and does the description include an organizational chart?	28	DR, IV	Yes the management structure is described including an organizational chart.	☑	☑
4.1.3. Has the general decisions-making process been described? And have the decisions been taken in an open and cooperative way?	28	DR, IV	Yes. The decision making process is described. Central management event is the Monday meeting of all management staff. In the afternoon is meeting with the contractors. Once every month there is a meeting with all employed people.	☑	☑
4.1.4. Has the four eye system used within the *management* structure? (This means that at least more than one person double-checks the work of another person.)	28	DR, IV	All expenditures, the final payroll, work reports, minutes on management meetings are double signed.	☑	☑
4.1.5. Adapted to the extent of the work, has the *management* worked with Standard Operational Procedures SOP?	29	DR, IV	There are internal Management Procedures / IMP on every management and operational process existing which are updated frequently.	☑	☑
4.1.6. Does the *project* collaboratively cooperate with other organizations or individuals to expand capacities of the *management*?	29	DR, IV	There is collaboration with following institutions - Makerere University, Kampala - Nyabyeya Forestry College, Masindi - University for Applied Forest Sciences, Rottenburg Germany - University of Freiburg, Germany - Working on fire International, Nelspruit, South Africa - National Forestry Authority, Uganda	☑	☑

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
4.1.7. Is it assured that the *management* of the *project* is able to continuously extend their knowledge and skills within their working field?	29	DR, IV	Yes. The multiple contacts assure a continuous process of professional education.	☑	☑
4.2. Financial Capacity					
4.2.1. Has the project owner given evidence with help of the cash-flow of the chapter 'Additionality' that sufficient financial means are and will be available to finance the establishment and maintenance of the *project*?	22, 23	DR,IV	Yes. The Balance of Global Woods confirms that.	☑	☑
4.2.2. Has the project owner give evidence of his financial health by for example: a) financial reports from the past 3 years, or b) an official accountant's opinion	23	DR,IV	Yes. The reports are there. There have been always positive results	☑	☑
4.3. Technical capacity					
4.3.1. Does a list describe the equipment used for the following activities: a) Nursery b) and preparation (incl. lining out /spacing) c) Planting d) Beating up (replacing of dead seedlings) e) Maintenance f) Pruning g) Thinning h) Harvesting i) Security (fire, animals, etc.)	3, 23	DR, FV	A list that meets the requirements is provided. For each activity separate instructions are provided.	☑	☑
4.4 Protective Capacity					
4.4.1. Has the mitigation of pests (listed in chapter 'Management of Planting Areas') and other possible risks (such as fire, browsing of animals, etc.) been described?	3, 24	DR, IV	Yes. The mitigation of pest is described as well as possible risks like browsing, disease, wind break, flood, vandalism, theft.	☑	☑
4.4.2. If the *project* is situated in an area with a high fire risk is a 'Fire Management Plan' included to the document? This plan must consider the actions for: a) Fire awareness	24	DR, IV	Fire is a major risk. A separate document "Fire Management Plan is provided with detailed measures.	☑	☑

* DR = Desk review, IV = Interview, FV= Field Visit

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
b) Fire prevention c) Fire equipment d) Fire detection e) Fire suppression f) Fire damage rehabilitation					
Has the risk been calculated according to the "Fire risk" guidelines?	3	DR, IV	**Outstanding Issue:** Carbon Fix did not yet issue a procedure to estimate fire risk. **Corrective Action Request No.10.** Risk from fire needs to be assessed according to pending procedure of CarbonFix.	OI CAR 10	☑
4.5. Secured Land Tenure					
4.5.1. Is it confirmed by official documentation that the *project owner* is the: a) land owner, or b) long-term lease holder, or c) owner of the timber and CO2-rights d) owner of the CO2-rights …of the project area?	8	DR, IV	Documents are provided that the project owner is owner of a 50 years lease of the land. As such the project owner is owner of the timber and the CO_2 rights. The audit team underlines that secured land tenure at validation stage can not assure that land tenure / access to carbon rights is actually maintained over the entire project lifetime. This item shall be monitored.	☑	☑
4.5.2. In case the *project owner* is the land owner or long-term leaseholder, is evidence given that he also owns the CO_2-rights?	8	DR, IV	See above	☑	☑
4.5.3. If the *project owner* is not the land owner, is evidence given that land owner agrees with the foreseen *project* activities?	8	DR, IV	See above	☑	☑
4.5.4. If any relocation of people is required, has it been carried out on a voluntary basis or has it helped to resolve land tenure problems?	8	DR, IV	No relocation of people has been necessary.	☑	☑
If there is encroachment or a possibility of it, has it been described and mitigated in a cooperative way?	8	DR, IV	Currently no risk of substantial encroachment is seen.	☑	☑

* DR = Desk review, IV = Interview, FV= Field Visit

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			The audit team confirmed that the Kikonda Project runs an intensive community forestry project through the Kikonda Community Forestry Association KiCoFa. This has yielded in what is considered to be a positive attitude of the local people towards the project (at the time of validation).		
4.6. Compensation Activities					
4.6.1. If an adaption of the growth-model or the destruction of forest lead to a shortage of calculated *VER$_{futures}$* within a management unit, have compensation activities been implemented?	3	DR, IV	Up to now there is no need to shorten the VERfutures according to the results of the inventory. Therefore no compensation activities have to be implemented yet.	☑	☑
4.6.2. If compensation activities are necessary has the project owner done the compensation within 12 month and by the following options? a) Replanted the *management unit(s)*, and/or b) Allocating *VER$_{futures}$* from other *management units*, and/or c) Purchasing *VER$_{futures}$* from other CFS certified *projects*.	3	DR, IV	Currently not applicable. **Observation:** This item is to be revisited at verification.	☑	☑
Does the compensation lead to the initially calculated amount of *VER$_{futures}$?*	3	DR, IV	N/A This item is to be revisited at verification.	☑	☑
4.7. Buffer Fund					
----------	3	DR, IV	Not yet installed.	☑	☑
5. Transparency					
5.1.1. Is sufficient evidence given to the certification body to be able to confirm that the projects transparency is according to the requirements of CFS?	3	DR	All information required by the standard is uploaded to the internet and as mostly publicly available.	☑	☑
5.1.2. Have the following information be uploaded to the login area of the project owner? a) A short description of the *project*. b) A description of the *project*. c) Pictures of the *project* (minimum 10 pictures).	3	DR	Yes, the information has been uploaded. See above	☑	☑

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
d) The history and logo of the *project owner*. e) The CV and a picture of the *project owner* representative. f) A description of the *project area's* history (including the historical land-use). g) A description of how the *project* can be visited.					
5.1.3. Have all sales of *VER$_{futures}$* been registered?	3	DR	No VERfutures have been registered yet. The audit can not assure that all sales are actually registered.	☑	☑
5.1.4. Have been provided all literature and comments, published and unpublished to the Certification Body? They are part of the certification process.	3	DR, IV	Yes. The certifier was provided with all documents he asked for. Note: The auditor has considered only those comments and documents which were forwarded from CarbonFix.	☑	☑

Industrie Service

Annex 2: Information Reference List

Reference No.	Document or Type of Information
1.	Set of project documents on Kikonda Forest Reserve Reforestation Project as available on CarbonFix webpage for the certifier. Version of 8 July 2008
2.	CarbonFix Standard Version 02
3.	On-site audit carried out during the period July 21 to July 25, 2008: **Validation team:** Dr. Hubertus Schmidtke TÜV SÜD Industrie Service GmbH GHG-Auditor **Persons interviewed during the on-site audits (Name, Position, Institution)** Matthias Baldus Global Woods AG, Manager Shedrack Kajura Sustainable Use of Biomass (SUB) Ltd Director Johannes Mokena SUB Ltd Manger Moses Otim SUB Ltd Employee Nursery, Thinning, Pruning Emanuel Muganza SUB Ltd Emploee, research Sediva Bigirueurenkya Trainee
4.	Initial Management Plan for IUE Kikonda Forest Reserve, 1999
5.	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
6.	Summary of satellite image classification project, GMES Service Element Forest Monitoring (GSE FM), 4 Oct 2005-3 Oct 2006, carried out by GAF Munich.
7.	Management Plan for The Kikonda Forest Reserve for the Period 2007-2012, approved by National Forest Authority.
8.	Agreement to Grow Timber Plantations in Kikonda Forest Reserve, dated 6.09.2001
9.	Photo on entrance sign of the Reserve indicating the establishment of the reserve in 1963 by the NFA National Forestry Authority
10.	Biodiversity paper on IUCN red list species in Kikonda Forest Reserve, date May 2008,
11.	Internal Management Plan Maintenance, Written instruction on the application of herbicide, 2008
12.	Safety and Health in the Use of Agrochemicals: a Guide, ILO International Labor Office, Geneva. 1991

Reference No.	Document or Type of Information
13.	Seed Export, J. A Lewald C. Guatemala City. Declaration on origin of tree seeds stands of “Pure natural Pinus Caribaea”
14.	Expression of interest for Pinus seeds. Order for Global Woods.
15.	Kikonda Internal Management Plans / Standard Operating Procedures on technical aspects, as presented during the onsite visit.
16.	Subdivision on manangement units and main maps: www.carbonfix.info/projects/kikonda/management units/ complemented by Shape files on actual project boundaries and their different project areas categories, provided to the audit team in their final version on 15. Nov 2008
17.	Yields of Eucalyptus and Carribean Pine in Uganda, Denis Alder et. Al. 2003
18.	GPG Good Practice Guidance for Land Use Land Use Change and Forestry, IPCC 2003
19.	Monitoring Guideline, M. Vohrer et al. 2007
20.	Excel spreadsheet: Kikonda – Summary Inventory+Site.xls (summary on carbon stock inventory)
21.	Excel spreadsheet: Kikonda Baseline Inventory 2006.xls (summary on carbon stock inventory in the baseline)
22.	Economic Balance Global Woods, 2007
23.	Balances of Global Woods 2004-2007
24.	Fire Action Plan,
25.	Best Operating Practices (safety and health) Sustainable Use of Biomass Ltd, Johannes Mokwen, Forest Operations Manager
26.	Safety and Training Standards and Documents, Folder
27.	NFA Uganda’s Forests, Functions and Classification, 2005
28.	Statement on Environmental Impact as provided by other environmental NGOs: KYRIDA (Aug 2008) and NEMA (Sep 1999)
29.	Kikonda Internal Management Plan, prepared by P.K. Karani Forestry Consultant, Team Leader EC Funded NFMC Project, Approved by R.M. Musoke, Ag. Commissioner for Forestry, October, 1999
30.	Evaluation of the past cooperation between the non governmental organisation Kikonda Community Forestry Association and the company Sustainable Use of Biomass Kikonda, Uganda Annexes, , 2007, Arne Steiss
31.	Memorandum of Understanding on forest establishement and conservation in the Kikonda Reserve
32.	Uganda State bonds, Overview document from the Bank of Uganda, 2007
33.	Forest Certification in Uganda, Polycarp Musimami Mwima, William Gombya Ssembajjwe, Gerald Eilu, Paper presented at the Symposium

Reference No.	Document or Type of Information
	Forest Certification in Developing and Transitioning Societies Social, Economic, and Ecological Effects, Yale School of Forestry and Environmental Studies, June 10 & 1 , 2004 (including indications on plantation areas)
34	The police, the people and the politics: police accountability in Uganda, Commonwealth Human Rights Initiative 2006