



**Verified Carbon
Standard**

VERIFICATION REPORT

REFORESTATION IN GRASSLAND AREAS OF UCHINDILE, KILOMBERO, TANZANIA & MAPANDA, MUFINDI, TANZANIA



Document Prepared By TÜV NORD CERT GmbH

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Summary:

GRL Tanzania Ltd has commissioned the TÜV NORD JI / CDM Certification Program to carry out the 4th Verification of the project “Reforestation in grassland areas of Uchindile, Kilombero, Tanzania & Mapanda, Mufindi, Tanzania” with regard to the requirements of VCS Version 4.0.

The project consists of 6,571.11 hectares of grasslands subject to reforestation through planting of Eucalyptus and Pine trees. Of the total project area only 5,624.73 hectare are considered for the fourth verification as the remaining area were i) temporarily unplanted, ii) too young for measurements or iii) research compartments.

The CDM-approved methodology AR-AM0005 Version 3 “Afforestation and reforestation project activities implemented for industrial and/or commercial use” is applied by the project to quantify the GHG emissions reductions and/or removals.

In the course of the VCS Verification, 7 Clarifications request (CL) and 6 Correction Action Requests (CAR) were raised and successfully closed.

The VCS Verification was based on the draft monitoring report/^{MR/}, emission reduction calculation spreadsheet/^{XLS/}, the monitoring plan as set out in the validated PD/^{PD/} and supporting documents made available to the TÜV NORD JI/CDM CP by the project participant.

Verification Period: from 28/12/2013 to 27/10/2020 (including both days)

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

- all operations of the project are implemented and installed as planned and described in the validated project design document;

- the monitoring plan is in accordance with the applied approved CDM methodology, i.e., AR-AM0005 – version 3.0;
- the installed equipment essential for measuring parameters required for calculating emission reductions are properly maintained;
- the monitoring system is in place and functional. The project has generated GHG emission reductions.

In addition, the verifier confirms that the GHG emission reductions are calculated without material misstatements in a conservative and appropriate manner. TÜV NORD JI/CDM CP herewith confirms that the project has achieved emission reductions in the above-mentioned reporting period as follows:

Year (vintage)	Baseline emissions or removals (tCO ₂ e)	Project emissions or removals (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Net GHG emission reductions or removals (tCO ₂ e)
2013	0.00	947	0.00	947
2014	0.00	86,455	0.00	86,455
2015	0.00	86,455	0.00	86,455
2016	0.00	86,692	0.00	86,692
2017	0.00	86,455	0.00	86,455
2018	0.00	86,455	0.00	86,455
2019	0.00	86,455	0.00	86,455
2020	0.00	71,296	0.00	71,296
Total	0.00	591,210	0.00	591,210

- Total Emission reductions for this monitoring period: **591,210t CO₂e**
- The longterm average carbon stock estimated with 819,735 tCO₂ is exhausted after issuance of the 591,210 tCO₂ for the 4th monitoring period. LTA (810,735) – VCU_s issued MP 1-3 (228,525) – VCU_s issued MP 4 (591,210) = 0 tCO₂

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INTRODUCTION

GRL Tanzania Ltd has commissioned the TÜV NORD JI / CDM Certification Program to carry out the 4th Verification of the project:

“Reforestation in grassland areas of Uchindile, Kilombero, Tanzania & Mapanda, Mufindi, Tanzania”

with regard to the relevant requirements of the Verified Carbon Standard Version 4/^{VCS}/. The verifier has reviewed the implementation of the monitoring plan (MP) in the VCS project for the monitoring period from 28/12/2013 to 27/10/2020 (including both days).

The project applies the CDM approved methodology AR-AM0005 – Afforestation and reforestation project activities implemented for industrial and/or commercial use – version 3.0.

1.1 Objective

The purpose of this verification, by independent checking of objective evidence, is as follows:

- to verify that the project is implemented as described in the project design document;
- to assess the implementation of the monitoring plan (MP) content in the VCS-PD;
- to assess the project's compliance with other relevant rules, including the host country (Indonesia) legislation;
- to confirm that the monitoring system is implemented and fully functional to generate voluntary emission reductions (VERs/VCUs) or ERs without any double counting; and
- to establish that the data reported are accurate, complete, consistent, transparent and free of material error or omission by checking the monitoring records and the emissions reduction calculation.

1.2 Scope and Criteria

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

The TÜV NORD JI/CDM CP has employed a risk-based approach in the verification, focusing on the identification of significant risks and reliability of project monitoring and generation of emission reductions.

1.3 Level of Assurance

The verification has been planned and organized to achieve a

- ☒ reasonable level of assurance (see section 2.4 for assessment)
- ☐ limited level of assurance

1.4 Summary Description of the Project

The project activity consists of the reforestation of grass land with commercial tree species through direct planting in the districts of Kilombero, Morogoro Region and Mufindi, Iringa Region. The selected species are Eucalyptus (Eucalyptus Saligna, E. Globulus, E. Camadulensis) and Pine (Pinus Patula). Until the end of the fourth monitoring period (27 October 2020) 6,571.11 ha were reforested out of which 5,624.73 hectare are considered for the fourth verification as the remaining area were i) temporarily unplanted, ii) too young for measurements or iii) research compartments.

The overall objective of the project is to establish and manage forest plantations to supply wood raw material and products. Further the project aims to contribute to carbon sequestration, conservation of adjacent forest ecosystems by reducing pressure, socio-economic development of local communities and improvement of infrastructure in the region.

The project further is certified against the FSC sustainable forest management standard/300,06,07/

The 4th monitoring period is from December 28 2013 to October 27 2020. In this period a net carbon emission reduction of 591,210 tCO₂-equivalent has been determined, which results in 532,029 VCUs deducting the 10 % buffer/XLS/.

VERIFICATION PROCESS

1.5 Method and Criteria

The verification of the project consisted of the following steps:

- contract review;
- appointment of team members and technical reviewers;
- desk review of the Monitoring Report^{MR/} submitted by the client and additional supporting documents;
- verification planning;
- remote audit techniques;
- background investigation and follow-up interviews with personnel of the project developer and its contractors;
- draft verification reporting;
- resolution of corrective actions (if any);
- final verification reporting;
- technical review;
- final approval of the verification.

Verification is based on the criteria laid down by VCS.

The sequence of the verification is given in the table 2.1 below:

Table 2.1: Validation/Verification sequence

Topic	Date
Assignment of verification	22/06/2020
Remote audit	29/06/2020 till 16.04.2021 (On 19/05/2020 general possibilities and requirements for remote auditing have been discussed before the actual assignment took place)
Draft reporting finalized	25/03/2021
Stakeholder consultation with community members	16/04/2021
Final reporting finalized	23/04/2021

1.5.1 Appointment of team members and technical reviewer

Based on a competence analysis and individual availabilities, a verification team was appointed. Furthermore, also the personnel for the technical review and the final approval were determined.

The list of involved personnel, the tasks assigned, and the qualification status are summarized in the table 2.2 below.

Table 2.2: Involved Personnel

	Name	Company	Function ¹⁾	Qualification Status ²⁾	Scheme Competence ³⁾	Technical Competence ⁴⁾	Verification Competence ⁵⁾	Host country Competence	On-site visit (remote)
☒ Mr. ☐ Ms.	Martin Opitz	External Expert	TL ^{A)}	LA	☒	14.1	☒	☒	☒
☒ Mr. ☐ Ms.	David Lubanga	External Expert	TM ^{A)}	A	☒	-	☒	☒	☒
☐ Mr. ☒ Ms.	Alexandra Nuske	TN CERT GmbH	FA/TR ^{A)}	SA	☒	14.1	☒	☐	-

¹⁾ TL: Team Leader; TM: Team Member^{A)}; TR: Technical review^{B)}; OT: Observer-Team^{B)}; OR: Observer-TR^{B)}; FA: Final approval^{B)}

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

^{B)} No team member: OT, TR, OR, FA

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

³⁾ GHG auditor status (at least Assessor)

⁴⁾ Technical Area / TR Subcategory as per S01-VA000-F02 or S01-VA070-F01 (such as 1.1, 1.2, ...)

5) In case of verification projects

1.6 Document Review

The VCS-PD/^{PD}/ and supporting background documents related to the project design and baseline were reviewed.

Furthermore, the verification team used additional documentation by third parties like host party legislation, technical reports referring to the project design or to the basic conditions and technical data.

The references used in the course of this verification are summarized in Appendix I.

1.7 Interviews

The verification team has carried out interviews in order to assess the information included in the project documentation and to gain additional information regarding the compliance of the project with the relevant criteria applicable for the VCS.

Before and during the remote audit verification team performed interviews with the representative of project proponent to confirm selected information and to solve issues identified in the document review.

Representatives of the PP, consultant and other parties including the operational staff of the plant and community members affected by the project activity have been interviewed. Details of the interviewed persons are included in Table 4 of Appendix I of this Report. The main topics of the interviews are summarized in Table 2.3.

Table 2.3: Interviewed persons and interview topics

Interviewed Persons / Entities	Interview topics
project proponent project manager consultants and field staff community members (Uchindile/Mapanda)	• General aspects of the project • Technical equipment and operation • Changes since implementation • Monitoring and measurement equipment • Calibration procedures • Remaining issues from last verification • Quality management system • Involved personnel and responsibilities • Training and practice of the operational personnel • Implementation of the monitoring plan • Monitoring data management • Data uncertainty and residual risks • GHG calculation • Procedural aspects of the verification • Maintenance • Environmental aspects • Social-economic aspects • Editorial issues of the Monitoring Report

1.8 Site Inspections

Due to the recent COVID-19 pandemic and Tanzania's imposed travel restrictions, the team leader who is based in Germany was not able to participate the on-site inspection activity in Tanzania.

On the basis of the information note issued by the VERRA secretariat on 24/03/2020 titled "Verra guidance on site visits" in combination with Section 4.1.2 of the VCS Standard, v4.0 TÜV NORD JI/CDM CP has made an exception to the common practice of a site visit, as a reasonable level of assurance can be provided on the basis of the following considerations:

- at the time of contracting, the pandemic was just to start (Proposal from June 2020). At this point in time a site visit was planned as usual.
- this is the 4th verification, three successful verifications have been performed by other VVBs. No risk related CARs/CLs regarding sampling has been opened /01,02,03/.
- a site visit at took place during the previous three VCS verifications as well as the two previous CCBA verifications. The last CCBA onsite inspection between the 22nd and 25th of September 2014 under participation of above-mentioned Lead Assessor (on behalf of another VVB),
- no significant changes occurred at the site since this last verification site visit,
- the monitoring is based on the assessment of satellite pictures respectively the analysis of movies taken during the measurements of the sample plots selected by the Lead Auditor, thus the inspection of the implementation of a correct measurement could be observed without a physical site visit,
- other experienced personnel were not available, due to travel restrictions within Tanzania.

The following alternative approach has been realized:

Team leader conducted a remote audit via interview with project proponent, project manager, consultants and field staff using skype and documents provided for remote review.

Further stakeholder consultations were conducted via phone in Swahili with members of the communities of Uchindile and Mapanda to verify AFOLU-specific safeguards^{CR/}.

1.9 Resolution of Findings

Material discrepancies identified in the course of the verification are addressed either as CARs, CLs or FARs.

A **Corrective Action Request (CAR)** is established where:

- mistakes have been made in assumptions, application of the methodology or the project documentation which will have a direct influence on the project results,
- the requirements deemed relevant for verification of the project with certain characteristics have not been met, or
- there is a risk that the project would not be registered or that emission reductions would not be able to be verified and certified.

A **Clarification Request (CL)** will be issued where information is insufficient, unclear, or not transparent enough to establish whether a requirement is met.

A **Forward Action Request (FAR)** will be issued when certain issues related to project implementation should be reviewed during the next verification.

1.9.1 Forward Action Requests

No FAR has been raised.

1.10 Eligibility for Validation Activities

TÜV NORD CERT GmbH holds accreditation for validation for the relevant sectoral scopes/unfccc/.

VALIDATION FINDINGS

Not applicable, as the project is the fourth regular verification of the registered project.

No gap validation is required; no methodology deviations were needed in the verification activity.

1.11 Participation under Other GHG Programs

This section is not applicable as the project does not seek registration under another approved GHG program. No changes since verification^{/03/}.

1.12 Methodology Deviations

Two methodology deviations were identified in the MR:

1. According to AR-AM0005 Version 3, the number of sample plots for monitoring of carbon stocks has to be designed in order to reach a maximum relative margin error of 10% at the 95% confidence level. The project has deviated from this monitoring requirement by setting the maximum permissible relative error equal to 10% at the 90% confidence level.
2. AR-AM0005 Version 3 provides a list of parameters to be monitored which includes mainly calculated parameters or parameters appearing as intermediate values in calculation steps. The project deviates from this requirement by not monitoring calculated parameters or parameters appearing as intermediate values. Only measured parameters and those taken from existing sources are monitored.

Both deviations have been assessed in the course of the previous verification^{/03/} and have been identified to not negatively impacting the conservativeness of the quantification of GHG emission reductions or removals.

Both deviations have their origin in the fact that the project was started at a time when there were still a diverse number of A/R methodology under the CDM. The deviations are in line with the current CDM A/R methodology AR-ACM0003.

1.13 Project Description Deviations

In the MR a deviation regarding the Root to Shoot ratio applied is described. This has been assessed already during the 1st verification^{/SCS/}.

1. The Monitoring Plan (MP) of the registered PD included a list of parameters that were not required to be monitored by the applicable methodology. Some of these parameters, as

- described in Section 2.2.2 of the MR, are no longer monitored as they are not relevant for monitoring GHG benefits.
2. The MP of the registered PD included a list of parameters that were not required to be monitored or be set by the applicable methodology. Some of these parameters, as described in Section 2.2.2 of the MR, are relevant for monitoring GHG benefits and were set in the registered PD as “available at validation”, yet these were parameters that are monitored in the project.
 3. The MP of the registered PD states that for the estimation of carbon stocks, all tree heights will be measured in every Permanent Sampling Plot (PSP). However, as required by the allometric equation employed to estimate the commercial volume per tree, which includes as independent variable the Dominant Height defined as the average heights of the 100 largest trees per ha, only heights of the four largest trees per PSP are measured.
 4. According to Section C.7 of the PD, baseline net GHG removals are assumed to be in a steady state, therefore, these are zero. However, the registered PD provided ex-ante estimates of baseline net GHG removals, which are in reality emissions from potential removal of existing vegetation/isolated trees. In the MR of the first monitoring period^{/011/}, these emissions were determined to be insignificant following the ‘Guidelines on conditions under which GHG emissions from removal of existing vegetation due to site preparation are insignificant’ (version 1) as were set to zero.
 5. According to the registered PD, the project would target planting 7,252 ha in Uchindile and 6,258 ha in Mapanda. In the MR of the second monitoring period^{/021/}, approximately 5,054 ha were excluded from Uchindile as a consequence of a land dispute with the Ministry of Natural Resources and Tourism of Tanzania.

All listed deviations have been assessed in the course of the previous verification^{/03/} and have been identified to not affect the applicability of the methodology, additionality or the appropriateness of the baseline scenario.

1.14 Grouped Project

Not applicable as this is not a grouped project.

VERIFICATION FINDINGS

1.15 Project Implementation Status

The project activity is completely operational and the same has been confirmed via interviews with Project Owner & Operations Personnel, Consultant and is further annually verified by a third party in the course of a FSC certification^{/300,06,07/}.

The project is implemented according to the description presented in the registered PD except for the deviations mentioned in the previous sections (3.3) of this report.

The verification team confirms, through the assessment of areal pictures as well as publicly available satellite pictures that all physical features of the proposed VCS project activity including data collecting, analysing and storage systems have been implemented in accordance with the registered PD and the above described and accepted deviations.

The verification team confirms, to the best of his knowledge, that the GHG emission reductions generated by the project have not become included in an emissions trading program or any other

mechanism that includes GHG allowance trading. Furthermore, the verification team confirms that the project has not received or sought any other form of environmental credit or has become eligible to do so since validation or previous verification; and that the project has not participated or been rejected under any other GHG programs since validation or previous verification.

The project is contributing to a sustainable development in the affected communities through the creation of job opportunities, provision of further education/training opportunities, the investment in the infrastructure^{/08,09,10/} (electrification of health center building, construction of maternity wards, classrooms, teachers' houses) as well as the sharing of carbon revenues^{/25/}. The mentioned aspects have been confirmed during the last onsite visit of the lead assessor in the year 2014^{/05/} and indirectly via the FSC-Certification^{/300,06,07/} as well as through stakeholder consultations via phone in Swahili with members of the communities of Uchindile and Mapanda^{CR/}.

Related findings:

Finding: 09	MR Sec. 1.5		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding	Please clarify if the communities Uchindile, Kitete, Mapanda and Chogo, that are mentioned in the MR are entities with defined roles/responsibilities for the project activity. If this is the case please add them with all informations required by the table provided in the MR template.		
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	The communities are the most important stakeholders for the project, but they don't have roles/responsibilities within the decision of the project activities, this is decided by GR. The paragraph has been updated.		
DOE Assessment #1	Clarification is provided as requested and crosschecked via interviews held with community members.		
Conclusion	☐ To be checked during the first periodic verification ☐ Appropriate action was taken ☒ Project documentation was corrected correspondingly ☐ Additional action should be taken ☒ The project complies with the requirements		

Finding: 01	MR Sec. 1.11		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding	The MR lists several SDGs (1, 2, 3, 4, 5, 8, 12, 13, 15). Please specify project specific provisions regarding monitoring and reporting of the listed SDGs and provide evidence of their monitoring and reporting.		

Finding: 01	MR Sec. 1.11
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	On reporting and monitoring of listed SDG's the company did the following: - Conducted social economic impact assessment 2018 as part of monitoring the impact of company's activities on the communities surrounding the plantations. - Once every year, the company releases a sustainability report that covers the reporting on the listed SDG See supporting documentation: - GR Sustainability Report-2019 - GR Sustainability Report-2020 - Socio Economic Assessment Report – 2018 With these inputs, the MR section 1.11 has been updated.
DOE Assessment #1	The MR was revised specifying the contribution of GR to the listed SDGs. The information provided is sustained via the sustainability reports and a Socio-Economic Assessment Report conducted by an independent third party respectively.
Conclusion	☐ To be checked during the first periodic verification ☐ Appropriate action was taken ☒ Project documentation was corrected correspondingly ☐ Additional action should be taken ☒ The project complies with the requirements

Finding: 11	MR Sec. 1.11
Classification	☒ CAR ☐ CL ☐ FAR
Description of finding	Please clarify what percentage of woman are employed/contracted and justify why gender equality is established Further: Please clarify what provisions exist to monitor and report in the Section 1.11 mentioned SDGs.
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	The percentage of women employed by GRL is 21% for permanent employees and 19% for contractors by 2020. Further, the number of women hired increase during the planting season since women are hired for activities related to planting and nursery. The number of contractor

Finding: 11	MR Sec. 1.11
	employees depends on the planned activity and the planting season. Due to the physical demanding work (harvesting, carrying log) it might be that the 50% of female worker in the plantation is difficult to reach. However, GRL promotes fair opportunities to its employees with a focus on female participation and all persons are given equal and non-discrimination employment opportunities irrespective of gender, sexuality, race or religion (SDG5 information added). A last paragraph was added to section 1.11 on how GRL monitor and disclose the results every year. As part of its FSC certification, a third-party assessment is done every year on socio-economic and environmental aspects of the forest plantation. Results are publicly available at FSC website and GRL website regarding its sustainability report.
DOE Assessment #1	Clarification is provided as requested and crosschecked via interviews held with community members, the MR was revised accordingly.
Conclusion	☐ To be checked during the first periodic verification ☐ Appropriate action was taken ☒ Project documentation was corrected correspondingly ☐ Additional action should be taken ☒ The project complies with the requirements

1.16 Safeguards

1.16.1 No Net Harm

The project activity consists of the reforestation of degraded grassland that were repeatedly exposed to fires. Species planted are exotic species for the commercial use. In the course of the validation a EIA was elaborated. The MR provides a summary of potential negative environmental and socio-economic impacts^{11/} and how they are mitigated. The following impacts are identified:

1. Environmental Impacts

- Depletion of soil nutrients
- Alteration of biological processes due to change of land use
- Decrease of water levels
- Riverine and valley vegetation
- Spread of tree diseases
- Spread of fungal flora
- Climate change
- Air pollution due to outbreak of fire

- Spray Chemicals/Pesticides
 - Water pollution
2. Socio-Economic Impacts
- Culutral sites
 - Chagne of Land Use
 - Increase in traffic accidents
 - Public health
 - Influx of immigrant workers
 - Unattended Forsest Cover
 - Unattended buildings, equipment and infrastrucutre
 - Mushrooming of economic activities

According to the documents/evidence provide such as shifting of the nursery to another location/^{12/}, Work Orders/^{13/} for Conservation Slashing, Fire Standby, Slashing for external Firebreaks, Site Specific EIAs/^{14/} and corresponding SOP/^{15/}, Soil Test Results/^{16/}, Water Analysis Report/^{17/} Land Use Maps/^{18/} GRL Tanzania Ltd is well conscious about potential negative impacts and is implementing mitigation actions as outlined in the EIA.

The information provided corresponds with the experiences made by the Lead Auditor in the course of two onsite visits/^{03,04/}.

This conclusion is backed by the fact, that the plantations managed by GRL Tanzania Ltd are undertaken an annual surveillance audit by a FSC int. accredited CAB/^{300/}. No deviations were noted for the 2020 report/^{07/}.

Related findings:

Finding: 02	MR Sec. 2.1		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding	Please provide a summary of all potential negative environmental and socio-economic impacts and activities taken to mitigate those. Please clarify if there has been any change regarding negative impacts compared to those identified during the project validation/registration.		
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	See Summary of ESE Mitigation Measures and Clarification documents. MR section 2.1 has been updated accordingly to environmental and social-economic impacts. There have been two changes regarding social impacts in the Project Design Document and the Monitoring Report. These refer to:		

Finding: 02	MR Sec. 2.1
	- Resettlement compensation: no longer applicable since no new areas were acquired for expansion; and GRL do not have plans to expand to other areas. - Conflict over shared resources in Mapanda: GRL has removed the nursery that was in Mapanda plantation (photos and GPS location available to auditor). Table 3 in MR shows the changes from project validation to current monitoring report.
DOE Assessment #1	The MR was revised providing detailed information of identified negative environmental and social impacts and how they can be mitigated. Further changes since last monitoring period are listed. All information provided are sustained with evidence.
Conclusion	☐ To be checked during the first periodic verification ☐ Appropriate action was taken ☒ Project documentation was corrected correspondingly ☐ Additional action should be taken ☒ The project complies with the requirements

Finding: 03	MR Sec. 2.1
Classification	☐ CAR ☒ CL ☐ FAR
Description of finding	Please provide the SOP 013-01 and clarify how many EIAs have been conducted accordingly in the monitoring period.
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	The SOP 013-01 has been replaced with "G009-wi01 Site Specific EIA". Document available in supporting documentation. In the monitoring period, a total of 23 Site Specific EIAs were conducted for harvesting activities. See attached example Site Specific EIA.
DOE Assessment #1	The SOP was provided as required. Further a summary of the outcome of the all site specific EIAs since last monitoring period as well as examples of those have been provided.
Corrective Action #2 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	Section 2.1 of the Report was rephrased as requested.

Finding: 03	MR Sec. 2.1
DOE Assessment #2	The Section 2.1 was completely rewritten emphasizing on potential negative environmental and socio-economic impacts and steps taken to mitigate them.
Conclusion	☐ To be checked during the first periodic verification ☐ Appropriate action was taken ☒ Project documentation was corrected correspondingly ☐ Additional action should be taken ☒ The project complies with the requirements

Finding: 11	MR Sec. 2.1
Classification	☐ CAR ☒ CL ☐ FAR
Description of finding	Please clarify since when and how the mentioned unclarities in regard to properties belonging to individual villagers have been settled.
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	Villagers were never resettled/moved from their territories. GRL compensation was in relation to the planting activity. For example, if there was an area used for maize that now will be used for planting, GRL compensated the valuation according to Tanzania law and regulations. This compensation was done at the beginning of the forestry operations. But it is not applicable anymore since there is no further expansion plans for the forestry project activities. Further, the areas that were compensated by the company are out of the carbon certification scope which are Idete plantation where the compensation occurred in 2006 and 2012, Inkoment plantation in 2012, and Chogo Ukami areas in 2017. A clarification was added in table 3.
DOE Assessment #1	The SOP was provided as required. Further a summary of the outcome of the all site specific EIAs since last monitoring period as well as examples of those have been provided.
Corrective Action #2 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	Section 2.1 of the Report was rephrased as requested.
DOE Assessment #2	Clarification is provided as requested and crosschecked via interviews held with community members, the MR was revised accordingly.
Conclusion	☐ To be checked during the first periodic verification ☐ Appropriate action was taken ☒ Project documentation was corrected correspondingly

Finding: 11	MR Sec. 2.1
	☐ Additional action should be taken ☒ The project complies with the requirements

1.16.2 Local Stakeholder Consultation

The plantations of GRL Tanzania Ltd are well established for more than 20 years now. GRL Tanzania Ltd is fully aware of the importance of good relations with Stakeholders and Communities^{/19/}. In order to be informed of any type of grievance well in advance GRL Tanzania Ltd has established an External Grievance Resolution & Management Procedure^{/20/}. Community meetings are held on a regular basis^{/09,10,21,22/} and Suggestion Boxes are established^{/23/}. Stakeholders^{/24/} are informed about the VCS Verification Process, the same applies for the communities amongst others because a share of 10% of the carbon revenues are transferred to the communities^{/25/}.

There was no input received during the monitoring report period that modified the project design.

The information provided corresponds with the experiences made by the Lead Auditor in the course of two onsite visits^{/03,04/}.

This conclusion is backed by the fact, that the plantations managed by GRL Tanzania Ltd are undertaken an annual surveillance audit by a FSC int. accredited CAB^{/300/}. No severe negative inputs were noted for the 2020 report^{/07/}.

Related findings:

Finding: 04	MR Sec. 2.2
Classification	☐ CAR ☒ CL ☐ FAR
Description of finding	Please provide procedures (e.G. Stakeholder and Community Relations Policy/March 2019) or methods used for engaging local stakeholders and clarify how outcomes of the local stakeholder communication are documented. Further clarify if any input received during ongoing communication in the monitoring period and if it has led to any updates to the project design.
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	<i>See attached 1906 GRAS Stakeholder and Community Relations Policy_1</i> In engaging local stakeholders, the company regularly conducts community meetings where different issues are discussed. The concerns and grievances may arise during the meetings therefore the company is documenting all issues that may arise and provides clarification to the communities and the agreed action to be taken. As part from community meetings, the community may raise their concerns through writing letters to the management or uses suggestion boxes that are available in the village offices and in the plantations.

Finding: 04	MR Sec. 2.2
	Procedure for community meetings have been updated in section 2.2. There were 30 meetings held during the monitoring period. Attached: <i>Regular meetings and Communication on 10% Carbon Distribution to the villages for 2020</i> There was no input received during the monitoring report period that modified the project design.
DOE Assessment #1	The MR was revised providing detailed information of i) the ways of engaging local stakeholders (Stakeholder and community Relation Policy), ii) how it is dealt with grievances in general (External Grievance Resolution & Management Procedure), iii) amount and location of village meetings in the last monitoring period, vi) proof that representatives of the region and villages have been informed about the verification process. Further it is stated that none of the inputs received by stakeholders have lead to an adaptation of the project design, which is plausible given the age of the plantation.
Conclusion	☐ To be checked during the first periodic verification ☐ Appropriate action was taken ☒ Project documentation was corrected correspondingly ☐ Additional action should be taken ☐ The project complies with the requirements

1.17 AFOLU-Specific Safeguards

In accordance with standard requirements sections 3.16.11– 3.16.18, the project proponent is in constant exchange with the communities affected by the project activity. Grievance procedures are in place.

Potential risks for the local communities due to the project activities are well known and dealt with, negative impacts could not be identified.

No discrimination or sexual harassment could be identified.

The PPs have a broad track record in managing carbon projects with community engagement.

No disputes in regard to land tenure, ownership and land-use have been report.

No changes since 3rd verification regarding carbon rights. No new areas have been added.

The verification team concludes from the information provided (see sec. 4.2), from stakeholder consultations with members of the communities Uchindile and Mapanda^{/CR/} as well as from the experience gained during the last onsite visits by the Lead Auditor^{/03.04/} and the results of the surveillance audit by a FSC int. accredited CAB^{/07.300/}, that appropriate measures are in place in case negative impacts should arise.

Related findings:

Finding: 05	MR Sec. 2.3		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding	AFOLU specific: Please specify how the project has communicated the following with local stakeholders: • The results of project implementation, including the results of monitoring. • Any changes, where relevant, to risks, costs and benefits the project may bring to local stakeholders. • Any changes, where relevant, to relevant laws and regulations covering workers' right in the host country. The process of VCS Program verification and the validation/verification body's remote audit.		
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	• The company releases annual sustainability reports that provide description of all company activities including project implementation and monitoring. See attached <i>GR Sustainability Report-2019</i> and <i>GR Sustainability Report-2020</i> and <i>Communication on 10% Carbon Distribution to the villages for 2020</i> • Through regular meetings with stakeholder, the company communicates any changes which are relevant to risk cost and benefit the project may bring to the communities. See attached <i>Regular Meetings</i>. • Through meetings with workers, the company also communicate any changes, where relevant, to relevant laws and regulations covering workers' right in the host country. The company sends official letters to the stakeholders to inform about the process of the VCS program verification and validation. See attached <i>Communication letter for VCS verification</i> Regarding grievance procedures, 2 issues were raised in 2020 during meetings with the stakeholders. - Community complaints on the retrenchments of the security personnel in the plantations due to the changes to the security management system. In order to close the raised issue, the new security company was requested by GRL management to recruit from the local villages. - Plantation external fire line – the communities complained that part of GRL external fire line were encroaching into the community woodlots areas. To close this, GRL management and		

Finding: 05	MR Sec. 2.3
	the communities agreed that the fire line will be shifted during the next fire season (FY: 2021-2022). Section 2.2 and 2.3 has been updated accordingly to the VCS MR requirements.
DOE Assessment #1	The MR was revised providing detailed information of i) communication monitoring results, ii) how communities are informed about any type of changes in regard to risks relevant of the project and iii) proof that representatives of the region and villages have been informed about the verification process.
Conclusion	☐ To be checked during the first periodic verification ☐ Appropriate action was taken ☒ Project documentation was corrected correspondingly ☐ Additional action should be taken ☐ The project complies with the requirements

Finding: 12	MR Sec. 2.3
Classification	☐ CAR ☒ CL ☐ FAR
Description of finding	It is not clear from the section 2 that the standard requirements Sections 3.16.11– 3.16.18 have been followed. A step-by-step approach is missing. (this requirement is new from Standard version 4.0).
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	Section 2 has been updated accordingly to the information in VCS Standard. The section number has been added as footnote in order to provide the auditor that the monitoring report has included the items from 3.16.11 to 3.16.18. GRL complies with all requirements as it is verified every year by a third-party auditor for holding the FSC certification.
DOE Assessment #1	The MR was revised providing detailed information of i) communication monitoring results, ii) how communities are informed about any type of changes in regard to risks relevant of the project and iii) proof that representatives of the region and villages have been informed about the verification process.
Conclusion	☐ To be checked during the first periodic verification ☐ Appropriate action was taken ☒ Project documentation was corrected correspondingly ☐ Additional action should be taken ☐ The project complies with the requirements

1.18 Accuracy of GHG Emission Reduction and Removal Calculations

Compliance of the Monitoring Plan with the Monitoring Methodology

The monitoring plan is in accordance with the approved methodology, AR-AM0005 Version 3, applied by the proposed VCS project activity.

Compliance of the Monitoring with the Monitoring Plan

The monitoring has been carried out in accordance with the monitoring plan presented in the registered PD/^{PD/} expected the deviations discussed in sections 3.2 and 3.3. All parameters contained in the monitoring plan were reviewed by the audit team and found to be monitored according to the registered PD and corresponding Inventory Guideline/^{26/}.

The monitoring of the GHG removals basically consists of direct measurements of the *Tree height* of the four tallest trees as well as the *Diameter at Breast Height (DBH)*.

Out of the 447 sample plots 45 plots were selected by the verification team. The GR inventory team filmed themselves getting to the PSP, allocating the centre of the PSP and the actual measuring of all trees. The films have been transmitted to the Audit Team via DropBox and reviewed entirely/^{RM/}.

Assessment of Data and Calculation of Greenhouse Gas Emission Reductions

The required data for the monitoring was available, and the parameters were monitored in accordance with the registered monitoring plan.

The data collection was conducted by manual measurements in the field. The dbh was measured using calipers, the heights by using a Vertex. The Vertex is calibrated at each PSP. For all trees the distance to the center was measured with the Vertex in order to ensure to measure only those that are actually part of the PSP. The data was collected manually. A de-tailed description of the data generation, storing, processing and aggregating, collating and reporting is described in the MR and the corresponding SOP/^{26/}. The measurement was filmed and reviewed by the audit team. The data collection, pro-cessing, collating and reporting was demonstrated and discussed in depth via interviews/^{AA/}.

In the following table the assessment of the actively monitored parameters are assessed.

Assessment of ex-post determined parameters

Parameter	Description	Value applied	Assessment
<i>Diameter at Breast Height (DBH)</i>	DBH of each tree in with DBH > 2cm located in each permanent sample plot measured to calculate accumulated biomass	See xls_20210217_v2_grdata_inv	<i>DBH</i> is measured with Calipers. For the 45 selected PSP, the GR inventory team filmed themselves getting to the PSP, allocating the centre of the PSP and the actual measuring of all trees. The films have been transmitted to the Audit Team via DropBox and reviewed entirely/ ^{RM/} .
<i>Tree height</i>	Heights of the four tallest trees in each PSP were measured to calculate the	See xls_20210217_v2_grdata_inv	<i>Tree height</i> is measured with a Vertex. For the 45 selected PSP, the GR inventory team filmed themselves getting to the PSP, allocating the centre of the PSP and the actual measuring of all

	accumulated biomass		trees. The films have been transmitted to the Audit Team via DropBox and reviewed entirely ^{/RM/} .
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In total the measurement of 10,06% of all sample plots was filmed and reviewed by the Audit Team.

Baseline emissions are assumed to be in a steady state. Hence, the baseline net GHG removals are zero.

According to the applied methodology (AR-AM0005) only non-CO2 emissions from biomass burning are considered. Thus, in line with the methodology project emissions due to minor fires were quantified in line with equations M.23, M.24 and M.25 of the applied methodology (AR-AM0005)^{/XLS/}.

Changes in carbon stock in trees within the project boundary ($\Delta C_{ACTUAL,t}$) is quantified on basis of the BEF method and equations from M.3-M.5, M.11 – M.14 and M.15 – M.18 of the applicable methodology (AR-AM0005)^{/XLS,XLS1/}.

In line with the CDM-AR-TOOL14 the uncertainty of the estimation of the GHG removals is calculated of 3,5%, thus no discount is required^{/XLS/}.

The long-term-average carbon stock is estimated on basis of the assumptions and equations as mentioned above, taking into account the current volume standing and the management practices such as thinnings and harvestings for the total project period of 99 years. Thus, the long-term-average is estimated in compliance with the methodology and corresponding tools ^{/XLS1&2/}. The audit team expects that the long-term-average carbon stock will vary in the future due to the length of the project period as it is to be expected that the performance of the plantation will increase.

The audit team confirms that the methods and formulae used to estimate the baseline and project emissions are appropriate. The calculation was done in accordance with the methods and formulae described in the registered monitoring plan and applicable methodology.

The audit team confirms that the monitoring report includes all required and relevant parameters. The parameters have been measured at the intervals required by the applied methodology and monitoring plan.

The audit team confirms that all the assumptions, emission factors and default values have been correctly justified. All the emission factors and default values are explicitly mentioned in the monitoring report.

Related findings:

Finding: 06	MR Sec. 3.1		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding	Please provide information of the compartments lost due to fire during the monitoring period. Please clarify if those losses must be classified as loss event in accordance with respective definition provided in the VCS Program Definitions.		
Corrective Action #1 <i>This section shall be filled by the PP. It shall</i>	A tab called "LossC" has been added to the main Excel carbon calculations. Fires areas and carbon stock losses has been calculated.		

Finding: 06	MR Sec. 3.1
<i>address the corrective action taken in details.</i>	The result is 2.41% loss of the previously verified emission reductions. Therefore, it is less than five percent and a VCS loss event report is not required following the VCS Program Definitions.
DOE Assessment #1	Clarification was provided as required. The compartments lost due to fire are named as well as a calculation proofing, that rd. 2,4% of previously verified reductions and removals that have stocked on the lost areas were lost due to the fire event. Thus, no loss event occurred in compliance with the VERRA Program Definitions.
Conclusion	☐ To be checked during the first periodic verification ☐ Appropriate action was taken ☒ Project documentation was corrected correspondingly ☐ Additional action should be taken ☒ The project complies with the requirements

Finding: 07	MR Sec. 5
Classification	☐ CAR ☒ CL ☐ FAR
Description of finding	Please clarify which compartments are considered for this monitoring period. Please ensure, that for the calculation of the precision level reached only those PSPs are considered that area located in the compartments applicably for this monitoring period.
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	We have linked “Area_gis_” tab to the proper spatial information/shapefiles. In the shapefile “Stratum_All_compts” it can be seen the complete project area categorized by stratum. The total project area balance (6,571.11 ha) is the same for both, carbon calculation and spatial area. For the current monitoring period, the area is 5,624.73 ha since it has been subtracted areas recently planted, harvest, temporary unplanted. Please see “Area_gis_” tab and “Carbon calcs” tab, highlighted in blue. The “Area of stratum” has been corrected in “carbon calcs” tab, now the area corresponds to the PSP measured in this monitoring period, and consequently, the precision level has been updated as well.
DOE Assessment #1	Clarification was provided in regard to the compartments monitored for this crediting period.

Finding: 07	MR Sec. 5
	Further the calculations of the precision level reached was updated taking into account only those PSPs which's data have been used for this monitoring period.
Conclusion	☐ To be checked during the first periodic verification ☒ Appropriate action was taken ☒ Project documentation was corrected correspondingly ☐ Additional action should be taken ☒ The project complies with the requirements

1.19 Quality of Evidence to Determine GHG Emission Reductions and Removals

Among several evidence items submitted, the following relevant and reliable evidence material was used by the audit team during the verification process:

- GIS files/^{SHP/}
- Calculation spreadsheets (including raw data)/^{XLS/}
- Calculation Long-term average carbon stock/^{XLS1/}
- QA/QC on Parcels/^{XLS/}
- Movies of measurement of selected plots/^{RM/}

Sufficient evidence covering the full verification period in the required frequency is available to validate the figures stated in the final MR. The source of the evidence was discussed in chapter 2 of this report. Specific cross-checks have been done in cases that further sources were available.

1.20 Non-Permanence Risk Analysis

The risk assessment for this monitoring period was conducted according to the “AFOLU Non Permanence Risk Tool”. Each risk category was calculated based on the VCS guidance and the input provided by the PPs. The information was validated and cross-checked through document and literature review and interviews conducted. Following the VCS guidance, a buffer of 10% is determined.

Risk Factor	COMMENTS	Risk Rating
Internal Risk		
<u>Project Management</u>		
a.	Pine and Eucalyptus are the two main tree species planted in the project, which are both exotic species and associated with more than 25% of the stocks on which GHG credits have previously been issued. However, these species have been proven to be well adapted to the same and similar agro-ecological zone of the southern highlands of Tanzania where the project is located. No changes since 1st, 2nd and 3rd verification, the audit team agrees that this risk is not relevant.	0

Risk Factor	COMMENTS	Risk Rating
b.	There is little threat of encroachment from outside actors. The project is located in an area which is not densely populated, and local communities are being engaged in different social programs/08,09/, including a carbon sharing benefits agreement/25/. Hence, the audit team agrees that this risk is not relevant. FSC auditing 2019 indicated that the period 2018-2019 has not recorded any illegal activities on the project area/07,300/. No changes since 1st, 2nd and 3rd verification, the audit team agrees that his risk is not relevant.	0
c.	GRL management team is made of individuals with significant experience in all skills necessary to successfully undertake project activities/AA/. The company has senior local management with good track record in plantation forestry operations as well as carbon project development, which are also supported by the management team at GRAS, who interact with local team regularly remotely, and visit the team and plantations every few months. Both the local team and staff at GRAS have proven experience with other forest carbon projects such as the Kachung Forest Project (CDM standard); the Bukaleba Forest Project (VCS project). The information provided corresponds with the experiences made by the Lead Auditor in the course of two onsite visits/03,04/. No changes since 1st, 2nd and 3rd verification, the audit team agrees that his risk is not relevant.	0
d.	The management team from GRL is located at Sao Hill, Mufindi district, Iringa region, which is the company's headquarter, situated about 80 km and 110 km from Uchindile Forest Project and Mapanda Forest Project, respectively. All staff that is involved in the management of 1 specific plantation (Mapanda/Uchindile) stay in that plantation. Staff with responsibility for more than 1 plantation such as Operations Manager and, ESG manager are stationed in Mafinga (1 hours from all plantations). The information provided corresponds with the experiences made by the Lead Auditor in the course of two onsite visits/03,04/. No changes since 1st, 2nd and 3rd verification, the audit team agrees that his risk is not relevant.	0
e.	Management team has been involved in the previous verification process and the validation and verification of the other carbon projects mentioned above. Further, the verification event is led by ForestFinest Consulting¹, a consultancy services provided for sustainable land use projects, with proven track record on GHG quantification and successful validation and verification events. The information provided corresponds with the experiences made by the Lead Auditor in the course of two onsite visits/03,04/. No changes since 1st, 2nd and 3rd verification, the audit team agrees that his risk is not relevant.	-2
f.	A Standard Operating Procedures (SOP)-Control and Prevention of illegal activities date 01/05/2015 is in place that describes the methods of prevention, control, and monitoring of possible illegal activities within GRL forest plantations. These include unlawful use, poaching, littering, mechanical damage of trees, illegal harvesting and settlement. FSC auditing 2019 indicated that the period 2018-2019 has not recorded any illegal activities on the project area/07,300/. Further an integrated management system is established	-2
Total Score Project Management		-4
Financial Viability		

¹ ForestFinest Consulting website: <https://www.forestfinestconsulting.com/>

Risk Factor	COMMENTS	Risk Rating
a.	n.a.	0
b.	n.a.	0
c.	n.a.	0
d.	Breakeven point has been calculated to be reached less than 4 years from the current risk assessment/ ^{27/} , "2020 Profitability calculation ".	0
e.	n.a.	0
f.	n.a.	0
g.	n.a.	0
h.	The project has secured more than 80% of funding and currently is under positive cashflow.	0
i.	n.a.	0
Total Score Financial Viability		0
<u>Opportunity Cost</u>		
a.	n.a.	n.a.
b.	n.a.	n.a.
c.	n.a.	n.a.
d.	Baseline activities are subsistence-driven/ ^{PD/} and net positive community impacts are demonstrated through the yearly FSC evaluation/ ^{300,07/} . The project is FSC certified since 2008, which demonstrates the sustainable management of the project, covering social, environmental and economic aspects. The information provided corresponds with the experiences made by the Lead Auditor in the course of two onsite visits/ ^{03,04/} . No changes since 1st, 2nd and 3rd verification, the audit team agrees that his risk is not relevant.	0
e.	n.a.	n.a.
f.	n.a.	n.a.
g.	n.a.	n.a.
h.	n.a.	n.a.
i.	n.a.	n.a.
Total Score Opportunity Cost		0
<u>Project Longevity</u>		
a.	GRL is committed to maintaining the project activities throughout and beyond the 99 year land title that it holds for both sites of the project/ ^{PD/} . The operational lifetime of the project is from 1997 – 2101, with the crediting period from 2002 – 2101. The information provided corresponds with the experiences made by the Lead Auditor in the course of two onsite visits/ ^{03,04/} . No changes since 1st, 2nd and 3rd verification, the audit team agrees that his risk is not relevant.	4.2
b.	n.a.	n.a.
Total Score Project Longevity		4.2
Summary Internal risk		
Project Management		-4
Financial Viability		0
Opportunity Cost		0

Risk Factor	COMMENTS	Risk Rating
Project Longevity		4.2
	TOTAL	0.2
External risk		
<u>Land Tenure</u>		
a.	n.a.	n.a.
b.	The land is owned by the government of Tanzania. The project proponent, Green Resources Ltd, holds a 99 year lease title from 2000 and 2003 for Uchindile and Mapanda Forest Projects, respectively. The information provided corresponds with the experiences made by the Lead Auditor in the course of two onsite visits/^{03,04/}. No changes since 1st, 2nd and 3rd verification, the audit team agrees that his risk is not relevant.	2
c.	FSC 2020/ ^{07/} report states that there is no evidence of unresolved disputes relating to tenure and use rights in the forest.	0
d.	No disputes over access /use rights exist in the project area.	0
e.	Not applicable	0
f.	Not applicable	0
g.	GRL has in place a dispute resolution process/ ^{20/} under the Grievance Management Plan dated July 2015.	-2
Total Score Land Tenure		0
<u>Community Engagement</u>		
a.	There are no households living inside the project area. The information provided corresponds with the experiences made by the Lead Auditor in the course of two onsite visits/^{03,04/}. No changes since 1st, 2nd and 3rd verification, the audit team agrees that his risk is not relevant.	0
b.	According to the PPs more than 20% of the households living within 20 km of the project boundary outside the project area and reliant on the project area have been consulted/^{19,21/}. Further it is stated that due to the pure infrastructure even neighbouring communities were hardly reliant to the project area. The information provided corresponds with the experiences made by the Lead Auditor in the course of two onsite visits/^{03,04/}. No changes since 1st, 2nd and 3rd verification, the audit team agrees that his risk is not relevant.	0
c.	The project is contributing to a sustainable development in the affected communities through the creation of job opportunities, provision of further education/training opportunities, the investment in the infrastructure/^{08,09,10/} (electrification of health center building, construction of maternity wards, classrooms, teachers' houses) as well as the sharing of carbon revenues/^{25/}. According to the FSC Report the project is generating a net positive benefit on the surrounding communities/^{07/}.	-5
Total Score Community Engagement		-5
<u>Political Risk</u>		

Risk Factor	COMMENTS	Risk Rating
Governance score	Governance score is -0.49	4
f. Mitigation:	The country received funding from UNREDD and Government of Norway to implement a REDD+ Readiness package including a REDD+ policy framework covering key components ^{/301,302/} .	-2
<i>Total Score Political Risk</i>		0
Summary External risk		
Land Tenure		0
Community Engagement		-5
Political Risk		2
8 Natural risk		
8.1 Fire Risk		
Ignition by lightning in Tanzania is rare because thunderstorms usually occur in the rainy season when vegetation is too wet to support ignition. Most wildfires are caused by human activities particularly farm preparation^{/303/}. GRL has team fire crew members in each plantation, all have received training on fire fighting and management. All plantations are equipped with radio communication, and most have fire watch towers and/or look outs^{/18,28/}. Significance = Insignificant Likelihood = Less than every 10 years Mitigation = 0.5		0
8.2 Pest and diseases outbreaks		
A few minor observation of potential biotic pest and disease vectors have been described. A list of mitigation measures has been provided. The mitigation measures follow good practice. Significance = Insignificant Likelihood = Less than every 10 years Mitigation = 0.5		2
8.3 Extreme weather		
Extreme weather occasions occurred only in terms of late start and early termination of the rain season which lead according to the PPs to loss only on recently planted stands which do not account as carbon sinks yet. The losses have been balanced by replanting. Mitigation measures are in place in form of the usage of adapted species. Significance = No Loss Likelihood = Less than every 10 years Mitigation = 0.5		5
8.4 Geological risks		
According to the PPs there are no records of earthquake incidents, volcanic eruptions or landslides in the southern highlands of Tanzania for the last 100 years. The information provided was assessed by the audit team and found to be correct. Significance = No Loss Likelihood = Less than every 10 years Mitigation = n.a.		0
8.5 Windthrow		
A few minor records of windthrows have been described. A list of mitigation measures has been provided. The mitigation measures follow good practice. Significance = Insignificant Likelihood = Less than every 10 years Mitigation = 0.5		2
Summary Natural risk Determined by (LS × M)		

Risk Factor	COMMENTS	Risk Rating
Fire (F)		1
Pest and Disease Outbreaks (PD)		1
Extreme Weather (W)		0
Geological Risk (G)		0
Windthrow (ON)		1
Total		3

Overall Risk Rating

Risk Category	Rating
a) Internal Risk	0.2
b) External Risk	0
c) Natural Risk	3
Overall risk rating (a + b + c)	10

Related findings:

Finding:	NPRR Financial Viability		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding	Please clarify why the breakeven of the cash flow is ranked as between 7 and 4 years although the corresponding Excel shows, that the Net project cash flow is positive since 2019. Please provide information how much funding is secured [e) to h)].		
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	The breakeven point is in 2019, therefore, the project is currently on positive balance. The financial viability section has been corrected properly to reflect this. Further, more than 80% funding is secure since the cashflow is positive as it can be seen in the cashflow excel sheet and the funding for the activities is covered.		
DOE Assessment #1	The NPRR was corrected in line with the corresponding excel that shows the cash flow of the project.		
Conclusion	☐ To be checked during the first periodic verification ☐ Appropriate action was taken ☒ Project documentation was corrected correspondingly ☐ Additional action should be taken ☐ The project complies with the requirements		

VERIFICATION CONCLUSION

GRL Tanzania Ltd has commissioned the TÜV NORD JI / CDM Certification Program to carry out the 4th Verification of the project “Reforestation in grassland areas of Uchindile, Kilombero, Tanzania & Mapanda, Mufindi, Tanzania” with regard to the requirements of VCS Version 4.0.

In the course of the verification six (6) Corrective Action Requests (CARs) and seven (7) Clarification requests were raised and successfully closed.

The verification is based on the draft monitoring report^{/MR1/} revised monitoring report^{/MR2/}, the monitoring plan as set out in the validated PD^{/PD/}, the validation report^{/VR/}, emission reduction calculation spreadsheet^{/XLS/} and supporting documents made available to the TÜV NORD JI/CDM CP by the project participant.

In detail the conclusions can be summarised as follows:

- All operations of the project are implemented and installed as planned and described in the validated project description.
- The monitoring plan is in accordance with the applied approved methodology i.e AR-AM0005 Version 3.
- The long-term-average carbon stock is reached, thus no further VCUs can be issued.
- The instruments essential for measuring parameters required for calculating removals is calibrated appropriately.
- The monitoring system is in place and functional. The project has generated GHG removals.

Verification period: From 28/12/2013 to 27/10/2020 (including both days)

Year	Baseline emissions or removals (tCO ₂ e)	Project emissions or removals (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Net GHG emission reductions or removals (tCO ₂ e)	Buffer pool allocation	VCUs eligible for issuance
2013	0.0	947	0.0	947	95	853
2014	0.0	86,455	0.0	86,455	8,645	77,809
2015	0.0	86,455	0.0	86,455	8,645	77,809
2016	0.0	86,692	0.0	86,692	8,669	78,023
2017	0.0	86,455	0.0	86,455	8,645	77,809
2018	0.0	86,455	0.0	86,455	8,645	77,809
2019	0.0	86,455	0.0	86,455	8,645	77,809
2020	0.0	71,296	0.0	71,296	7,130	64,166

Total	0.0	591,210	0.0	591,210	59,121	532,089
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Munich, 23. April 2021



Martin Opitz

Team Leader

JI/CDM Certification Program

Hanover, 23. April 2021



Alexandra Nuske

Final Approver

JI/CDM Certification Program

APPENDIX I: REFERENCES

Table 1: Documents provided by the project proponent

Reference	Document
/MR/	MR 4 th Verification; Reforestation in grassland areas of Uchindile, Kilombero, Tanzania & Mapanda, Mufindi, Tanzania, ver 2.0, 24-February-2021
/NPRR/	Non-Permanence Risk Report; Reforestation in grassland areas of Uchindile, Kilombero, Tanzania & Mapanda, Mufindi, Tanzania, ver 2.0, 24-February-2021
/XLS/	Emission reduction calculation spread sheet (4 th MP); xls_20210217_v3_grdata_inv
/XLS1/	Long-Term-Average Carbon Stock, 210207_v2_GR long term average 99 years_4Ver.xls
/XLS2/	xls2_210108_longterm average_volume
/SHP/	Shapefiles
/RM/	Films of the measurement of the following PSPs: - M211_2011 - M3310_2011 - M243_2011 - M226_2011 - M31_2011 - M55_2011 - M81_2011 - M1013 - M115_2011 - M144_2011 - M16_2011 - M172_2011 - M177_2011 - M198_2011 - M244_2011 - M3 - M6 - M77_2011 - M94_2011 - M460_2013 - M04_2010 - M1006 - M111_2013

Reference	Document
	M130_2011 M17_2013 M206_2013 M227_2013 M24_2010 M317_2013 M388_2013 M479_2013 M693_2013 M943_2013 U393_2011 U764_2013 U407_2011 U598_2011 U838b_2011 U865_2011 U889_2011 U916_2011 U2_2010 U390_2011 U539_2011 U895_2011
PD	Project Description for the Voluntary Carbon Standard ARR project activity: Reforestation in grassland areas of Uchindile, Kilombero, Tanzania & Mapanda, Mufindi, Tanzania; July 7th 2009
VR	Validation Report: Reforestation in grassland areas of Uchindile, Kilombero, Tanzania & Mapanda, Mufindi, Tanzania Report No. 1261936; TÜV SÜD Industrie Service GmbH, 17 July 2009
01	VCS Verification Report Report No. 1261941; Tüv Süd, 1st Verification Period 01 Jan 2002 and 30 Nov 2008
011	1 st VCS Monitoring Report; 1 st January 2002 to November 30 th 20; GreenResources
02	VCS Verification Report No. 60050103; Tüv Süd, 2 nd Verification Period 01/12/2008 – 01/09/2012
021	2 nd VCS Monitoring Report; 01-12-2008 to 1-09-2012; GreenResources
03	VCS Verification Report Report; SCSglobal Services, 3rd Verification Period 2 September 2012 to 27 December 2013

Reference	Document
031	3 rd VCS Monitoring Report; 02-09-2012 to 27-12-2013; GreenResources
04	CCBA REPORT NO. 600501038-10 FIRST MONITORING PERIOD: 01 JAN 1997 TO 01 SEP 2012; Tüv Süd
05	CCBA Report No. 10266SH; second Monitoring Period: 02 Sep 2012 to 31 Dec 2013; Tüv Süd
06	SGS FSC FM Certificate, SGS-FM/CoC-005066
07	AD 36A-20.1, Forest Management Certification Report, SGS, 2020.05.07

Table 2: Background investigation and assessment documents

Reference	Document
08	SOCIO-ECONOMIC IMPACTS ASSESSMENT FOR GR OPERATIONS IN TANZANIA; Deusdedit Kibassa, PhD, July 2018
09	GreenResources Sustainability Report 2018
10	GreenResources Sustainability Report 2019
11	GRL Summary of Environmental and Socio-Economic Mitigation Measures
12	Evidence for shifting of Nursery; KML
13	Workorders Conservation Slashing, Fire Standby, Slashing of External Firebreaks
14	Site Specific EIAs
15	IMS Procedure, Site Specific Impact Assessment, G009-WI01; 28-06-2019
16	Soil Test Results – 2019
17	Water Analysis Report 2019
18	Land Use Map; Indicating RTE Species, Cemetery/Grave, Erosion, Water Sampling Points, Water Pints, Fire Towers

Reference	Document
19	GREEN RESOURCES AS STAKEHOLDER AND COMMUNITY RELATIONS POLICY REVISED MAY 2019
20	IMS Procedure, External Grievance Resolution & Management Procedure, G030-002; 9/01/2020
21	Summary of Community Meetings
22	Regular Meetings; meeting minutes_2020, 2018, 2017, 2015
23	Evidence of allocation of Suggestion Letter Box, Uchindile Village Office
24	Communication letter for VCS verification to District Managers
25	Communication on 10_ Carbon Distribution to the villages for 2020
26	Inventory Guidelines for Green Resources AS Version 05; 22 June 2020
27	20210215_Cash Flow 99 years_(Final).xls
28	Fire Management Plan 2020 - 2021

Table 3: Background investigation and assessment documents

Reference	Document
/300/	https://info.fsc.org/details.php?id=a0240000005sUDGAA2&type=certificate
/301/	https://www.forestcarbonpartnership.org/country/tanzania
/302/	REDD+ Annual country progress reporting. Available at: https://www.forestcarbonpartnership.org/system/files/documents/Tanzania%20Country%20progress%20report%20July%2015%202017.pdf
/303/	FAO, 2013. A fire baseline for Tanzania. Sustainable Forest Management in a changing climate. Available at: http://www.fao.org/forestry/39605-016494740dc4dd315b0b298b573b083b.pdf

Table 4: List of interviewed persons

Reference	Mol ¹		Name	Organization / Function
/ AA /	V	☐ Mr. ☒ Ms.	Andrea Vera	Consultant / FFC
/ AA /	V	☐ Mr. ☒ Ms.	Hampus Hamilton	GM / GRL
/ AA /	V	☐ Mr. ☒ Ms.	Victor Kimey	ESG / GRL
/ AA /	V	☒ Mr. ☐ Ms.	Demetrius Kweka	Group ESG / GRL
/ AA /	V	☒ Mr. ☐ Ms.	Kazaula Geofrey	Mapping, GIS Manger / GRL
/ AA /	V	☒ Mr. ☐ Ms.	Archford Muchando	Natural Resources Manager / GRL
/CR/	V	☒ Mr. ☐ Ms.	Obedi Madembo	Village Chairman / Mapanda
/CR/	V	☒ Mr. ☐ Ms.	Amani Kiwkelo	Council member / Mapanda
/CR/	V	☒ Mr. ☐ Ms.	Tom Kagno	Council member / Mapanda
/CR/	V	☐ Mr. ☒ Ms.	Valentina Mkandawile	Village executive officer / Mapanda
/CR/	V	☐ Mr. ☒ Ms.	Stefani Lugona	Village Chairperson / Uchindile

Reference	Mol ¹		Name	Organization / Function
/CR/	V	☒ Mr. ☐ Ms.	Hassan Omari Maulo	Village executive officer / Uchindile
/CR/	V	☒ Mr. ☐ Ms.	Amos Samuel Matimbwi	Council member / Uchindile
/CR/	V	☐ Mr. ☒ Ms.	Caroline Mukonda	Council member / Uchindile
/CR/	V	☐ Mr. ☒ Ms.	Yohana Dandi Mekala	Council member / Uchindile

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