

VERIFICATION OF MAKAME SAVANNAH REDD

Document Prepared By



Project Title	Makame Savannah REDD
Version	United Republic of Tanzania, Tanganyika District
Report ID	ESSPL/ VCS-CCB/2019/073

Report Title	Verification of Makame Savannah REDD
Client	Carbon Tanzania
Pages	56
Date of Issue	14 th October 2020
Prepared By	EPIC Sustainability Services Private Limited
Contact	No.41, Anugraha, 1st Cross road, Sundar Nagar, Near BEL Circle, Gokula, Bengaluru, PIN code 560054, Karnataka State, India.
Approved By	K. Suryanarayana Murthy, Managing Director
Work Carried Out By	Dr. G. Vishnu (Lead Auditor)

Summary

Carbon Tanzania (CT, Ltd.) has appointed EPIC Sustainability Services Private Limited to perform the first periodic verification under the VCS and CCB standards. The assessment covered the scope of the verification of the emission reductions reported and sustainable benefits achieved for the project titled "Makame Savannah REDD" VCS ID: 1900 for the period from 27 April 2016 to 26 April 2019.

The verification was based on the Project Implementation Report (PIR), and other supporting documents submitted to the assessment team by the client. The assessment criteria was based on the requirements in VCS Standard v4.0, the applied GHG methodology "VM0007: REDD Methodology Modules (REDD-MF), Version 1.5" and its associated modules as well as the VCS Non- Permanence Risk, the VT0001 "Tool for the demonstration and assessment of additionality in VCS Agriculture, Forestry and Other Land Use (AFOLU) Project Activities" v3 and the CCB Standard v3.1.

The project activity is a REDD+ project, eligible under the Agriculture, Forestry and Other Land Use Scope in VERRA scheme located in the Kiteto District, Arusha Region in the United Republic of Tanzania. the project aims to engage and support local communities in the protection of their village forest reserves in order to contribute to the conservation of important wildlife habitat and to mitigate climate change.

The project combines sustainable development with carbon sequestration and supports biodiversity conservation efforts. Carbon credit sales generate participant income and provide project funding which contribute to infrastructure benefits. These sustainable benefits are verified by the additional CCBA certification.

The scope of this assessment is defined as a periodic independent review and ex-post determination by EPIC, of the monitored VCS project design and CCBA indicators during defined verification period, and consisted of the following three phases

- a) Desk review of the project documents and supporting evidences;
- b) Physical site inspection and follow-up interviews with project stakeholders;
- c) Resolution of outstanding issues and the issuance of the final report

The overall verification, from Contract Review to Verification Report & Opinion, was conducted using EPIC's internal procedures.

The assessment team identified, through the assessment process, Corrective Action Requests (CARs) and Clarification and Information Requests (CRs). A total of 02 CLs, 11 CARs, 01 FAR and 04 IRs have been issued. were identified in the current assessment. The client has taken actions and submitted to EPIC the revised reports and supporting evidence. The assessment team, through the verification process, confirmed that the project applies the applicable methodology by meeting the requirements of the monitoring aspects of the methodology and is able to record real and measurable emission reductions, which are achieved by the project activity. The emission reductions during the monitoring period are correctly calculated in the monitoring report, Version 3.0 dated 5th October 2020. Therefore, EPIC certifies the emission reductions amounting to 233,060 ton CO₂e removals for the period from 27 April 2016 to 26 April 2019 (both days inclusive).

On the basis of the physical site inspection of the project activities and review of the documents submitted by the project participant, the assessment team confirms that the monitoring plan conforms

with VCS and CCB requirements and both the GHG reductions and the CCB indicators have been monitored in line with the methodological and project design requirements. In conclusion, it is EPIC's opinion that the VCS/CCBA first Monitoring and Implementation Report for The Makame Savannah REDD Project Version 3.0 dated 5th October 2020, meets all relevant requirements established by the VCS Standard, applicable Methodology VM0007: REDD Methodology Modules (REDD-MF), Version 1.5 as well as the identification of social, economic and environmental impacts and the presentation of the results obtained in accordance to the CCBA indicators. The project has also achieved the Gold level criteria by implementing benefits that qualify under exceptional community level, climate and biodiversity.

Table of Contents

1	Introduction.....	5
1.1	Objective	5
1.2	Scope and Criteria	5
1.3	Level of Assurance.....	5
1.4	Summary Description of the Project	6
1.5	Audit Team Composition (<i>Rules 4.3.1</i>)	6
1.6	Method and Criteria.....	7
1.7	Document Review	7
1.8	Interviews	8
1.9	Site Inspections	8
1.10	Resolution of Findings.....	9
1.11	Eligibility for Validation Activities	9
2	Validation Findings.....	9
2.1	Participation under Other GHG Programs	9
2.2	Methodology Deviations	9
2.3	Project Description Deviations (<i>Rules 3.5.7 – 3.5.10</i>)	10
2.4	Minor Changes to Project Description (<i>Rules 3.5.6</i>).....	10
2.5	Grouped Project (G1.13 – G1.15, G4.1)	10
3	Verification Findings.....	10
3.1	Public Comments (<i>Rules 4.6</i>)	10
3.2	Summary of Project Benefits.....	10
3.3	General.....	10
3.4	Climate	15
3.5	Community	19
3.6	Biodiversity	22
3.7	Additional Project Implementation Information	24
3.8	Additional Project Impact Information	25
4	Verification Conclusion	25
	Appendix 1: NON-PERMANENCE RISK ASSESSMENT CHECKLIST	27
	Appendix 2: VALUES (Ex-ante and Ex- post) AND ESTIMATIONS AND THEIR VALIDATION	35
	Appendix 3: RESOLUTION OF FINDINGS	45

1 INTRODUCTION

1.1 Objective

EPIC Sustainability Services Private Limited (EPIC) has been contracted by Carbon Tanzania to undertake the first periodic VCS and CCB verification of the project titled "Makame Savannah REDD":

- To verify that the actual monitoring system and procedures are in full compliance with the system and procedures described in the monitoring plan of validated PD as well as with the applicable methodology;
- To verify the monitoring and Project Implementation Report with deviations are in compliance with monitoring plan and VCS / CCB rules;
- To identify social, economic and environmental impacts as well as the presentation of the results obtained in accordance to the CCBA indicators;
- To verify that the data reported were accurate, complete, consistent, transparent and free of material error or omission by checking the monitoring records and the emissions reduction calculation; and
- To provide a reasonable level of assurance that the project implementation and monitoring meet the criteria as per VCS Standard ver 4.0 and CCB Standard ver 3.1.
- To verify and certify GHG emission reductions reported for the project for the period from 27 April 2016 to 26 April 2019.

1.2 Scope and Criteria

The scope of the verification was the independent and objective review and ex-post determination of the monitored reduction of GHG emissions from the project "Makame Savannah REDD". The verification of this project was based on the validated and verified project description (PD), validation report, first monitoring reports and supporting documents made available to the verification team. These documents were reviewed against the requirements of the VCS standard version 4.0, VCS guidelines, related rules and guidance, the VCS Validation and Verification Manual, Version 3.2, and the CCB Standard ver 3.1.

The CCB Standard for this project activity being complimentary to the VCS, does not in itself set the criteria regarding the project type, location, and size, crediting period or baseline and monitoring methodologies; it covers only criteria of climate community and biodiversity impact of the project, but not for emission reductions themselves.

The scope of the verification covers the independent evaluation of this specific project activity by a certifying entity against the requirements of the CCB Standard and its indicators, on the basis of the Project Implementation Report (PIR) report submitted.

The implementation status of the monitoring regarding the Climate, Community and Biodiversity indicators are verified based on the CCB requirements in order to confirm that the impacts arising from a carbon offset project for the indicators are documented with adequate justification and can be reasonably verified.

The verification is not meant to provide any consulting towards the client. However, stated request for clarifications and/or corrective actions may provide input for improvement of the project design.

1.3 Level of Assurance

In line with VCS requirements and as per ISO 14064-3:2006 para A.2.3.2, a reasonable level of assurance is defined for the verification of the project. This implies that based on the process and procedures conducted, EPIC should state whether the information in the monitoring report is materially correct, is a fair representation of the actual project details, and is prepared in accordance with the VCS requirements and the applied VCS methodology for information pertaining to additionality, GHG quantification, monitoring and reporting.

1.4 Summary Description of the Project

The project activity is a REDD+ project covering an area of 104,065 hectare, eligible under the Agriculture, Forestry and Other Land Use Scope in VCS located in the Kiteto District in the United Republic of Tanzania. the project aims to engage and support Wildlife Management Area (WMA) in the protection of their village forest reserves in order to contribute to the conservation of important wildlife habitat and to mitigate climate change. The Makame Savannah REDD project is estimated to generate approximately 136,504 tCO₂e in GHG emissions reductions on an average annual basis.

The Makame Savannah REDD project will protect the Makame WMA from land grabbing and encroachment, and the conversion of land from forest to agriculture, thereby stopping deforestation and preventing GHG emissions generated through tree harvesting and clearing land for agriculture. In doing so the Masai communities living within the WMA will receive improved land tenure, grazing rights and significant income. This REDD project protects the southern extension of the Tarangire-Manyara ecosystem and in doing so protects significant biodiversity and megafauna, both resident and migratory. Verification Process

1.5 Audit Team Composition (*Rules 4.3.1*)

The following team members from EPIC were involved in the assessment:

Name	Role	Components reviewed
Dr G Vishnu	Lead Auditor	Completeness check, desk review, onsite inspection, Interview with project representatives, issuance of findings, report preparation.
Mr Daudi Mollel	Host Country Expert	Interviews with community and forestry land use patterns, desk review
Mr R. Vijaya Raghavan	Technical Review	Checking and verifying of information related to draft final report.

The summary of the audit team is provided as below:

Dr. G. Vishnu holds a Master's and Doctorate in Environmental Science. He has around 8 years of experience in the field of research and consultancy related to water, wastewater, solid waste management systems, ecological impact assessments, implementation of new, Cleaner Production technologies and biomass assessment studies. He has more than 10 years' experience in validation verification of more than forty CDM, GS and VCS projects and has undergone extensive training on GHG validation and verification and has been qualified as Lead Auditor for various technical areas. He is also an ISO 26000 lead auditor certified by Professional Evaluation and Certification Board (PECB). He is a Certified Sustainability Assurance Practitioner (CSAP) from AccountAbility, UK. He has successfully completed the e-course on Carbon Monitoring in CDM Afforestation and Reforestation projects conducted by World Bank Institute. He has participated in forestry projects across various regimes and has undergone training in methodologies and processes related to forestry auditing. He has experience in community forestry projects under VCS, CCB and Plan Vivo in African region.

Mr. R. Vijaya Raghavan holds BE in Mechanical Engineering, M.Tech in Energy Conservation and Management and MBA in Technology Management. He is certified as Energy Auditor by Bureau of Energy Efficiency (BEE), Government of India. He has 10 years of working experience in energy sector including validation / verification of fifty CDM and VCS/GS projects and has undergone extensive training on CDM validation and verification and has been qualified as technical reviewer for several sectoral scopes. He is also an ISO 26000 lead auditor certified by Professional Evaluation and Certification Board (PECB). He is a Certified Sustainability Assurance Practitioner (CSAP) from AccountAbility, UK. He has successfully completed the e-course on Carbon Monitoring in CDM Afforestation and Reforestation projects conducted by World Bank Institute. He is qualified as a technical reviewer for this project as per EPICs internal procedures.

Mr Daudi Mollel holds a diploma in wildlife management from the college of African wild life management, Tanzania. He has more than five years of work experience related to Development of Wildlife Information Landscape database, training the various data collection techniques to Rangers, technical oversight and supervision of monitoring and evaluation of all patrol activities in the field, community management, geospatial data collection and management. He is qualified as a host country and technical expert for this project as per EPICs internal procedures.

1.6 Method and Criteria

The verification and sampling plan methodology was based on VCS guidance documents and ISO 14064-3. Based on inventory information, a total of 39 plots were measured across the single identified strata – miombo woodland.

The sample design was a simple random sample employing clusters of four fixed 10m-radius plots. Within the project area, the validation team visited randomly sample plots that were used to determine the carbon stock within the project area. In each plot, the assessment team observed the PP inventory team implementing the Standard Operating Procedure – Forest Inventory. The plots were consequently re-measured either completely or partly and findings compared with the original inventory date of the respective plots.

The objective of the field assessment was to assess the project's ability to re-identify both plots and trees originally subjected to the inventory, whose data were entered in the carbon model and to assess the quality of the work performed within the field during the data collection. In addition to the site visit, whereby the assessment team assessed the performance of the inventory practices, the team performed an office audit during which it examined the data processing, quality controls and carbon modelling. This was to determine the correctness of the assumptions that the PD provided on the project eligibility criteria in relation to Methodology, as well as the project's ability to implement the project design over the duration of the project crediting period. During the various site visits, both in the Reference Area and Project Area, the assessment team performed interviews with the aim of obtaining information about agricultural practices within the project area. A risk-based approach was used to select the samples, allowing for a review of target members representing a wide geographic range of sites that reflect the different project activity area (PAA) strata. This was done to obtain the necessary sample size and to meet a reasonable level of assurance.

1.7 Document Review

The verification was performed based on the review of the PD, monitoring report and PIR as well as the supporting documentation. This process included:

The documents submitted were initially reviewed and EPIC requested that the PP present supporting evidence. Additional background information and documents related to project performance were also reviewed by EPIC. Through the process of the verification, the revised monitoring report and the supporting documents were evaluated to confirm the actions taken by the PP in response to the CARs and CRs issued by EPIC. The documents reviewed by EPIC are listed in References section of this report. EPIC reviewed the final version of the documents, such as the MR/PIR dated 25th July 2020, to

confirm that all changes agreed had been incorporated. The entire list of documents reviewed is summarized in Section 6.0.

1.8 Interviews

Interviews were conducted during the site visit inspection from July 15th to 27th, 2019. Both the Carbon Tanzania team and Terra Carbon LLC team were interviewed at the head office in Arusha and respective field offices during the site visits.

Name Designation	Company	Interview Topics
Mr. Marc Baker	Carbon Tanzania	Project design, Project implementation Monitoring plan and Procedures, Training details, field measurement
Mr David Soch Mr Ben Rifkin	Terra Carbon LLC	Monitoring plan and Procedures, Training details, field measurements
Mr David Soch Mr Ben Rifkin	Terra Carbon LLC	Field measurements, Species identification, data entry, Carbon measurement practices
Mr. Marc Baker	Carbon Tanzania	Procedures and policies of Tanzania government for forestry conservation and community forestry.
Mr. Edward Lekaita	Board member of Makame WMA	Policies, management structure and activities of Makame WMA
- Makame WMA office – meeting with project partners and natural resource officer - Makame WMA office – meeting with village council and villagers	Villages interviewed to review CCB indicators	Farming practices followed, Meeting with village council and VGS, benefit sharing mechanisms, village boundary visit for buffer zone verification.

1.9 Site Inspections

An onsite visit was conducted during the period July 15th to 27th, 2019. The sampling criteria were based on strata classified as described in section 2.1. The on-site assessment which was conducted as a part of the verification activity involved:

- 1) An assessment of the implementation and operation of the VCS and CCB project activity as per the registered PD;
- 2) A review of information flows for generating, aggregating and reporting of the monitoring parameters;
- 3) Interviews with relevant personnel to confirm that the operational and data collection procedures are implemented in accordance with the Monitoring Plan;
- 4) A cross-check between information provided in the PD, MR and data from other sources;
- 5) Observations of monitoring practices against the requirements of the PD and the applied methodology;

- 6) Interviews with local stakeholders to confirm that the project meets the sustainability benefits criteria as defined by CCB;
- 7) A review of calculations and assumptions made in determining the GHG data and ERs, and
- 8) An identification of QA/QC procedures in place to prevent, or identify and correct, any errors or omissions in the reported monitoring parameters.

1.10 Resolution of Findings

The objective of this phase of the verification was to resolve the corrective action requests and clarifications and any other outstanding issues which needed to be clarified prior to EPIC's positive conclusion on the monitoring report. During the verification process, 02 CLs, 11 CARs, 01 FAR and 04 IRs have been issued. . 1 FAR (FAR 1 and FAR 2) raised during the earlier validation was addressed during this verification.. All the CARs and CLs were resolved during this phase. In order to ensure the transparency of the validation process, the concerns raised and responses given are summarized in Appendix 3 of this report and documented in more detail. All the corrective actions and responses have been incorporated into the monitoring report.

An internal Technical Reviewer is appointed to review the final draft reports. The comments made by the Technical Reviewer are taken into consideration and incorporated in the final verification report. The final verification report (after resolutions of all findings) is then submitted for approval.

1.10.1 Forward Action Requests

No FAR was raised during the verification. In order to ensure the transparency of the validation process, the concerns raised and responses given are summarized in Appendix 3 of this report and documented in more detail

1.11 Eligibility for Validation Activities

EPIC is accredited for validation and verification for the scopes 1-11 and 13-15 by CDM UNFCCC as well as by the VCS board.

2 VALIDATION FINDINGS

This section is not applicable as the scope of this assessment covered verification. Assessment of validation of methodology deviations and project description deviations, and the inclusion of new project activity instances into grouped projects is also not applicable.

2.1 Participation under Other GHG Programs

The project has not applied for other GHG programs such as CDM, GS, etc. The same is verified through the declaration letter from the PP confirming that the project is not claiming any other environmental credits. Additional certification under CCBA does not quantify GHG credits by itself and is rather used as a qualitative tag for the VCS credits, representing community and social aspects. The verification team also checked the national and international credits trading systems to assess double-counting risks. Other applicable GHG mechanisms such as CDM, GSF, Plan Vivo were checked by the audit team to verify this aspect.

2.2 Methodology Deviations

Assessment of the methodology deviations listed in Section 2.1.12 of the PIR was done by the audit team. As all deviations were approved during the validation and are applicable for this monitoring period,

it is the overall conclusion of the audit team that the methodology deviations applied to the project are valid.

2.3 Project Description Deviations (*Rules 3.5.7 – 3.5.10*)

The verification team has assessed that there are no deviations in the project descriptions by review of the project design documents and validation report.

2.4 Minor Changes to Project Description (*Rules 3.5.6*)

This section is not applicable as no minor changes to project description were observed for this verification period.

2.5 Grouped Project (*G1.13 – G1.15, G4.1*)

This section is not applicable as it is not grouped project.

3 VERIFICATION FINDINGS

3.1 Public Comments (*Rules 4.6*)

The Makame Savannah REDD Project was open for public comment from 10/09/2020 to 10/10/2020 as confirmed from the VERRA public registry. No comments have been received during this period as per the information in the VERRA registry as verified from the Link below and confirmed from VERRA.

<https://registry.verra.org/app/projectDetail/VCS/1900>

3.2 Summary of Project Benefits

Section 1 of the PIR describes the project benefits – both unique and standard benefit metrics. The unique benefits are described as the strengthening of the land rights of the WMA dependent communities comprising of the five villages and protection of grazing lands of the traditional Masai pastoral community. The sustainable development metrics are based on the PD template and provide estimated benefits that are included and benefits that will not be monitored and/or are not applicable are labeled accordingly. Supporting documents have been verified by the audit team to verify that all achievements reported are substantiated with information provided. The reference sections list the documents reviewed by the audit team

3.3 General

3.3.1 Implementation Status (*G1.9*)

The following aspects were assessed according to the requirement of this Section:

The current verification has not identified existence of any material discrepancies between project implementation and the project description. Compared to the previous period, there have been no material changes to the implementation status of the monitoring plan and the completeness of monitoring, including the suitability of the implemented monitoring system except for a project deviation, which does not affect the overall monitoring or results. The project start date is 27th April 2016. The CCB project life is 60 years. The GHG crediting period is 30 years, with the option of a 30-year renewal. The assessment as per the verification team is as follows:

Climate benefit – Implementation of project activities over a period of 3 years resulted in n 233,060 tons t CO2e removals with a buffer pool contribution of 44,281 t CO2e and a total emission reduction of 150,425 t CO2e after accounting for leakage and uncertainty (22,291 t CO2e). The audit team has also verified the same by means on site observations and document review.

Unique Community benefit – improvement in strengthening of the land rights of the WMA dependent communities comprising of the five villages and protection of grazing lands of the traditional Masai pastoral community, access to increased revenue from wildlife-based tourism and general improvement in connectivity of biodiversity corridors are listed as unique project benefits which are in line with the validated project design. The audit team has also verified the same by means on site observations and document review.

Standardized Benefit metrics- provision of training, employment opportunities and general improvement of overall community well-being are listed under this section which are in line with the validated project design. The audit team has also verified the same by means on site observations and document review.

The project is currently registered under VCS certification and additionally certified under CCB. The GHG emission reductions or removals generated by the project were not included in any other emissions trading program or any other mechanism that includes GHG allowance trading. The project has not received, nor sought out, any other form of environmental credit, nor has it become eligible to do so since validation or any previous verification. The project also has not participated in, or been rejected under, any other GHG program since validation or any previous verification.

There previously validated methodology deviations have been included and are valid for this verification period. No project description deviations, or minor changes to the project description (as per VCS requirements, each verification report must contain an exhaustive list of all deviations or changes applied to the project) were observed. It has also been verified that overall, the project has been implemented as described in the Project Description.

The overall aim of the project is to engage and support local communities in the protection of their village forest reserves in order to contribute to the conservation of important wildlife habitat and to mitigate climate change which is described in the VCS-CCB PD. In summary, the audit team concludes that the project has been implemented as described in the project description.

3.3.2 Risks to the Community and Biodiversity Benefits (G1.10)

The audit team took the following steps to assess the accuracy of the likely natural and human-induced risks to the expected climate, community, and biodiversity benefits during the project lifetime identified by the project.

- Through on-site observations and interviews with project personnel, the audit team confirmed that the discussion of risks in Section 2.1.16 of the MR is comprehensive and also includes risk identified as part of the non-permanence risk analysis (see Section 3.3.10 below);
- The audit team concludes that measures proposed are effectively implemented to mitigate the risks as per the project description such as poaching, ineffective implementation of RMP, climate change and invasion of land by migrants.
- Through on-site observations and interviews with project personnel, the audit team confirmed that the mitigation measures are appropriate, and that the risk has been reduced during to an extent appropriate during this verification period.
- Project risks were also assessed in detail in the VCS Non-permanence Risk Report (version 3.0 dated 24th July 2020), which will be updated periodically as part of the VCS monitoring and verification process. The risk factor of 19% applying the VCS AFOLU Non-permanence Risk Tool

relate to risks of reversals of climate benefits but equally to community and biodiversity benefits and is assessed to be a fair estimate of the overall risks.

3.3.3 Community and Biodiversity Benefit Permanence (G1.11)

Two principal strategies to ensure the maintenance and enhancement of the project benefits beyond the project lifetime are described in the PDD which have been implemented in the PIR

The first is capacity development. The project has provided awareness programs and training that the capacity development ensues for the lifetime of the project.

The second strategy relates to land use and the planned use of pastoral lands in a sustainable way. The project has provided awareness programs and training in this aspect.

Therefore, the protection measures adopted in the project accounting area during this verification period is forecast to set the stage for future protection beyond the project lifetime, leading to maintenance and enhancement of the climate and biodiversity benefits beyond the project lifetime. Hence the audit team concludes based in the current project implementation the project activities designed to strengthen capacity development and improve community well-being should extend beyond the project lifetime.

3.3.4 Stakeholder Access to Information (G3.1- G3.3)

The audit team has taken the following steps to validate the project's stakeholder engagement plans and practices as per information provided in section G3.1 – G3.3 of the MR.

- A detailed review information in the MR which contains information regarding steps made to communicate and publicize the MR and other project documentation, the project validation process, and the CCB public comment period.
- Visited project communities as indicated in the audit plan, as well as project offices and sub-offices. In these locations, audit team observed that the project MR was available, as well as executive summaries of the MR, informing of the project (in English and local language).
- conducted interviews with community members and verified the stakeholder engagement practices.
- Ongoing consultations with the community for this verification period was also verified by means of site visit observations and document review

In summary, given the evidence of awareness of project information in most project communities, the audit team concludes that the project has made project documentation accessible to communities and other stakeholders

3.3.5 Stakeholder Consultation (G3.4 – G3.5)

The audit team took the following steps to verify the project's method(s) for conducting effective consultation with stakeholders.

- Verified that the PIR includes a detailed description of the stakeholder consultation process.
- While onsite, the audit team interviewed project personnel involved in community outreach who confirmed that the consultation process was implemented as described in the PIR.

- Moreover, the audit team reviewed meeting minutes, photographic evidence and attendance sheets confirming the level of outreach that was performed by the project personnel.
- The framework of the RMP, as described in the validated PD and its use as an implementing tool by the Makame WMA was verified by the audit team to be a correct approach based on the site observations.

Finally, interviews with community chiefs confirmed that the consultation process is on-going with representatives from all participating communities being represented in order to learn from project successes and failures in order to ensure the project is being implemented using an adaptive management framework.

In summary, given the evidence collected, the audit team concludes that the project's method(s) for conducting effective stakeholder consultations, as described in the PIR, fully satisfy the VCS requirements.

3.3.6 Stakeholder Participation in Decision-making and Implementation (G3.6)

The audit team has assessed the information in the PIR by means of site observations to verify that the project has been effectively communicated with all communities, including disadvantaged groups, and that they have been given an opportunity to participate .

- The audit team confirmed that the project design process has been implemented in a collaborative manner ensuring that all potentially affected stakeholders are included throughout the project design process.
- The audit team interviewed community members across the project zone and confirmed that meetings were held in the relevant local language.
- The audit team confirmed through interviews that invitations were extended to community leaders, leaders of community forests, and commune leaders within a meaningful timeframe and in such a manner that each stakeholder could respond

3.3.7 Anti-discrimination (G3.7)

The audit team has taken the following steps to assess the measures needed and designed to ensure that all entities involved in project design and implementation are not involved in, or complicit in, any form of discrimination or sexual harassment during the current verification period.

- The audit team confirmed that the PIR contains detailed description of measures designed to ensure that all entities involved in project design and implementation are not involved in any form of discrimination or sexual harassment and is consistent with information in the PD.
- While onsite, the audit team interviewed project personnel involved in community outreach who attested that entities involved in project design were not involved or complicit in discrimination or sexual harassment.
- The audit team confirmed that the project has established formal grievance redressal system which is in place for the verification period.

3.3.8 Stakeholder Feedback and Grievance Redress Procedure (G3.8)

The audit team has assessed the following regarding the project's feedback and grievance redress procedure. The audit team agrees that the project's formalized process is consistent with requirements of the CCB Standards

- The audit team reviewed the submitted formal Grievance and Redress Mechanism document and agreed that it outlines a procedure for receiving, hearing, responding to and attempting to resolve grievances within a reasonable time period.
- While on site, the audit team interviewed project partners, government officials (of the WMA) and members of local communities. It was confirmed that the grievance process described in the PD is consistent with their understanding.
- During the current verification, no grievances have been raised as of this point.

In summary, the audit team concludes that the feedback and grievance redressal procedure described in the PIR fully satisfies the requirements of G3.8.

3.3.9 Worker Relations (G3.9 – G3.12)

The audit team has assessed by means of the following steps the requirements of G 3.9 – G 3.12 as summarised below:

- The audit team confirmed that the PIR contains a detailed description of employee induction, training and capacity building measures that are either occurring or planned related to project activities.
- While onsite, the audit team interviewed community members who confirmed that training, orientation and capacity building is ongoing. Example – the VGS training and employment records were verified for the current verification.
- As the project has started implementation, some of the training has been initiated during the verification period. Review of the training records was done to verify the same.
- The audit team confirmed based on the PD equal opportunity policy to different socio-economic groups are met.
- The audit team verified that the project complies with all relevant laws and regulations covering worker's rights and the measures needed and designed to inform workers about their rights as per information in the PIR.
- The audit team reviewed the Health and Safety Policy, and confirmed that it informs workers of risks and explains how to minimize such risks.

3.3.10 Management Capacity (G4.2 – G4.3)

The audit team has made an independent assessment on information on the management team's expertise and prior experience implementing land management and carbon projects at the scale of this project.

- Through prior validation and verification engagements, audit team can confirm that the project proponent (CT) currently holds the role of project proponent with respect to the other two REDD+ projects (1 registered plan vivo project and one VCS+CCB project in pipeline) in Tanzania, both of which were at a scale similar to this project.
- Through discussions with the management team, audit team can confirm that this entity has adequate experience in development and maintenance of REDD+ projects at a scale similar to this project.

- There is no change in the management team and partnerships from the validated PD.

Hence it is the opinion of the audit team that the project implementation is in accordance with the validated project description.

3.3.11 Commercially Sensitive Information (Rules 3.5.13 – 3.5.14)

No information categorized as commercially sensitive information has been withheld from the PIR.

3.3.12 Rights Protection and Free, Prior and Informed Consent (G5.1-G5.5)

The audit team has taken steps to verify actions taken and measures implemented by the project proponent to protect the rights of Indigenous in compliance with sections G 5.1-G5.5 as summarized below:

- The audit team reviewed the PIR and confirmed that it contains detailed descriptions of statutory and customary rights as relates to land, territory and resources in the project. As there are no deviations from the PD, the audit team concludes that all property rights are recognized, respected and supported in the project design as described in the PD for the current verification.
- The assessment of FPIC was done by the audit team based on a series of informational consultation meetings with the District Government and village representatives by Carbon Tanzania from April 2016 onwards. Consultative meetings have been held periodically during the current verification as verified from the review of documents. It is the overall conclusion of the validation team that project is respecting the property rights of the communities and is line with CCB requirements.
- For the current verification it has been assessed by the audit team during site visit interviews that the project activities do not involve any involuntary removal or relocation of property rights holders from their lands. The project follows the effective implementation of the RMP and there is no such case of involuntary removal or relocation of property rights holders in the project area.

3.3.13 Legal Status (G5.6)

Through interviews with government representatives the audit team confirmed that the project has been granted approval from the appropriate officials. This was also verified from the MoU and contracts signed. During interviews with community leaders, the audit team confirmed that the project has also been granted approval from appropriate community leaders. The verification team is of the opinion that sufficient compliance to requirements regarding the project's approval from appropriate authorities, including established formal and/or traditional authorities customarily required by the communities is achieved and no deviations were observed for this verification period.

3.4 Climate

3.4.1 Accuracy of GHG Emission Reduction and Removal Calculations

The audit team has assessed the quantification methods for GHG emission reductions and removals generated by the project. based on information provided in the PD and supporting documents. The assessment of the data and sources used is validated as per the summary provided below:

Spatial boundaries

As observed from the project maps and site visit, the project area consists of one contiguous parcel of land near the northern Kiteto District boundary in north east Tanzania which is under threat of deforestation, which is under threat of deforestation. The project proponents are undertaking project activities in and around the project area to mitigate deforestation pressures and stop deforestation. The total project area is 104,065 ha and was 100% forested at the start of the project as verified from the historical GIS data. It was verified by the audit team that there were no changes in spatial boundaries as compared to the validated PD.

Quantification of baseline emissions

The validation team has assessed that the project baseline emissions from unplanned deforestation, both rate and location, which was conducted in conformance with the VCS modular REDD methodology VM0007, specifically the BL-UP module is sufficiently justified. The project has used the simple historic approach. The simple historic approach is conservative in this case compared to the alternate population driver approach because the population in Tanzania is expanding rapidly, at a national rate of 3.0% per year, according to the population growth published by World Bank in 2019. Also this approach is conservative and acceptable as by applying the simple historic approach the baseline scenario will conservatively exclude the impact of a growing population on the rate of deforestation in the RRD.

Project Emissions

Forest carbon stocks were directly measured in a forest inventory of the project area in 2016-2017. Results are detailed in the "Forest biomass carbon inventory for the Makame Project, Kiteto District, Tanzania" 2017 which can be found in the project database. The sample design was a simple random sample employing clusters of four fixed 10m-radius plots. Several approaches were tested to post-stratify the inventory, looking at slope, aspect, elevation, Enhanced Vegetation Index (EVI) and distance to nearest population centre.

The forest strata present in the Project area include Acacia dominated shrubland (MAS) and Acacia-Commiphora woodland (MWF). The results of the inventory as reviewed by the audit team indicated a total biomass carbon of 54.6 t CO₂e/hectare in live trees for the MAS strata and 99.0 t CO₂e/hectare for MWF strata estimated with a 90% confidence interval. Total forest biomass carbon was estimated as the sum of the sampled pools live trees and standing dead wood. All supporting calculations were verified from the accompanying Excel file.

The validation team has performed an assessment on the Parameters and Values used to Calculate Annual the net project emissions which are summarized in Appendix 2.

Harvested Wood Products

Total carbon stocks entering and emitted from the harvested wood products pool over 100 years were calculated using the VCS module CP-W VMD0005. These are excluded as no commercial harvesting for wood products takes place in the baseline (as part of the forest conversion process) or with project scenarios.

Monitoring of Ex-post net carbon stock changes and greenhouse gas emissions

The net carbon stock change as a result of deforestation in the project area;

Based on table 3.1 in the PIR and emission reduction calculation sheets, it was verified that Forest cover change due to deforestation and natural disturbance is monitored through periodic assessment of classified satellite imagery, covering the project area. Emissions for deforestation and natural disturbance

are estimated by the multiplying areas for deforestation and natural disturbance, respectively, by average forest carbon stock per unit area.

The project area and leakage belt boundary as described in the PD, serves as the initial “forest cover benchmark map” against which changes in forest cover are assessed over the interval of the first monitoring period; For this monitoring period, change in forest cover is assessed against the preceding classified forest cover map marking the beginning of the monitoring interval. The area of remaining forest in the RRL ($A_{RRL, forest, t}$) is derived by subtracting the non-forested area within the RRL, as found in the forest benchmark map from the total area of the RRL.

The net carbon stock change as a result of degradation in the project area

It was verified by the audit team that the emissions due to illegal logging (illegal degradation) is monitored by conducting surveys in the surrounding areas every two years. Locations surveyed include:

- Families residing in the WMA directly adjacent to the project area; and
- Nearby villages and rural lands, outside of the WMA approaching the project area.

As the most recent surveys, conducted as part of community meetings with local villages in interviews with community members, indicate that illegal logging is below the threshold to warrant further investigation of degradation from illegal logging in the project area, Area potentially impacted by degradation processes in stratum i ($ADegW_{i,t}$) is set to 0 in this monitoring period.

The net carbon stock change as a result of natural disturbance in the project area:

Project emissions from biomass burning has been verified to be calculated in accordance with the methodology based on information in Table 3.3 in the PIR and the emission reduction calculation sheets.

Monitoring of leakage

The monitoring of activity shifting leakage and immigrant leakage has been verified to be calculated in accordance with the methodology based on information in Table 3.4 and Table 3.5 in the PIR and the emission reduction calculation sheets.

The greenhouse gas emissions as a result of deforestation and degradation activities within the project area.

As verified from the inventory SOP and validated PD, forest carbon stock estimates are derived from field measurements less than or equal to 10 years old. Aboveground and belowground live tree and dead wood stocks are to be re-assessed on or before November 2026. Carbon stocks and baseline greenhouse gas emissions are based on estimates from the initial inventory conducted in 2016.

Calculation of Net Emission Reductions:

The Estimated GHG emission reduction credits = Baseline emissions, fixed for 10 years at validation – monitored Project emissions – monitored Leakage – Non-permanence Risk Buffer withholding – Uncertainty deduction (applied to produce *Adjusted NER REDD*).

Parameter Uncertainty_{BSL,SS} was calculated to be 22.6% at the 95% confidence level as verified from the “Makame Inventory Calcs 2017.08.17-2.xlsx” for the initial forest inventory

Non-permanence Risk Buffer withholding of 19 % (calculated as a percent of net change in carbon stocks prior to deduction of leakage, see “VCS-Non-Permanence-Risk-Report_Makame.docx” and “VCS-Risk-Report-Calculation-Tool-v3.1-Makame.xlsx”). was also verified to be calculated and applied correctly. The assessment of risk analysis is attached as Appendix 3 as part of the verification report.

Estimates of GHG credits eligible for issuance as VCUs were calculated as per Table below which was verified by the audit team from review of the excel calculation sheets to be accurate:

Years	Estimated baseline emissions or removals (tCO ₂ e)	Estimated project emissions or removals (tCO ₂ e)	Estimated leakage emissions (tCO ₂ e)	Risk buffer (%)	Deductions for AFOLU pooled buffer account (tCO ₂ e)	NER REDD	Adjusted NER REDD	GHG credits eligible for issuance as VCUs (tCO ₂ e)
2017	8,283	6,218	0	19%	392	2,066	1,908	1,516
2018	67,247	6,218	5,438	19%	11,596	55,591	51,354	39,759
2019	176,183	6,218	16,853	19%	32,293	153,112	141,444	109,150
Total	251,714	18,654	22,291	19%	44,281	210,769	194,706	150,425

The audit team is of the opinion that overall the methodology and referenced tools have been applied correctly to calculate baseline emissions, project emissions, leakage and net GHG emission reductions and removals.

3.4.2 Quality of Evidence to Determine GHG Emission Reductions and Removals

The verification of all the data ex-ante and data ex-post (monitoring parameters), including data measurement, data transfer, data archiving, aggregation and calculation of baseline emissions, project emissions and leakage emissions was done for the current verification period .

The verification team has performed an assessment on the Parameters and Values used to Calculate Annual the net project emissions which are summarized in Appendix 2.

3.4.3 Non-Permanence Risk Analysis

The audit team has performed an independent assessment of the non-permanence risk rating determined by the project proponent. For each risk factor it is verified that the rationale, assumptions and justifications used to support the risk score are appropriate. Relevant documents have been reviewed to support the risk score and the overall risk rating is verified to be appropriate and suitable in the context of the project design.

Non-permanence Risk Buffer withholding of 19 % (calculated as a percent of net change in carbon stocks prior to deduction of leakage, see “VCS-Non-Permanence-Risk-Report_Makame.docx” and “VCS-Risk-Report-Calculation-Tool-v3.1-Makame.xlsx”). was validated to be calculated and applied correctly. The assessment of risk analysis is attached as Annex B as part of the validation report.

The audit team is of the opinion that overall the methodology and referenced tools have been applied correctly to calculate baseline emissions, project emissions, leakage and net GHG emission reductions and removals.

3.4.4 Dissemination of Monitoring Plan and Results (CL4.2)

The audit team has assessed that adequate dissemination of the monitoring plan and results was done. Through interviews with the relevant project personnel, the audit team confirmed that the climate monitoring plan is made available for public review in the Project Office. In addition, results will be communicated to the communities and other stakeholders during the periodic meetings. Results of monitoring is planned to be made publicly available during this verification event and was confirmed as such. The copies of the project documentation including a local language version of this PD and all MRs with the District Government and partner NGOs were reviewed by the audit team and it is the opinion of the audit team that the information meets the requirements of this section.

3.4.5 Optional Gold Level: Climate Change Adaptation Measures (GL1.3)

The plan is designed to provide for planned seasonal grazing in Makame WMA. Development of dams for water storage for both livestock and wildlife. Increase mobility for both grazing and access to water for cattle and wildlife during the dry season.

Hence it is the opinion of the audit team that the measures implemented are based on the causal model described in response to G1.8 of the PD and the activities are planned to deliver the intended impacts.

3.4.6 Optional Gold Level: Climate Change Adaptation Benefits (GL1.4)

Not Applicable as per information in validated PD and PIR

3.5 Community

3.5.1 Community Impacts (CM2.1)

The audit team reviewed the PIR and verified that it includes an estimate of the changes in the well-being of communities, including all constituent socio-economic or cultural groups such as indigenous peoples under the without-project scenario. The audit team confirmed that the project uses the Theory of Change methodology and SBIA assessments, as suggested by the CCB Standards. While on site, the audit team interviewed local community members who confirmed that the assumptions in the model were a result of the consultation process and are therefore clearly defensible. Furthermore, the focal issues used as indicators was used to distinguish the 'with project' and 'without project' scenarios. The section identifies land conflicts between pastoral activities and agriculture and weak governance structures that lead to ineffective implementation of RMP as the main threats.

The PIR includes a detailed breakdown of anticipated impacts by group and shows the result to be net positive for all groups, therefore meeting the requirements of this indicator. Hence it is overall conclusion of the audit team that the assessment of impacts is accurate.

3.5.2 Negative Community Impact Mitigation (CM2.2)

The audit team reviewed the PIR and confirmed it addresses community impacts and measures needed to mitigate potential negative impacts on community groups. While on site, the audit team interviewed local community members who confirmed that potential negative community impacts and measures to counteract them were collaboratively addressed during outreach efforts. In addition, the project's monitoring systems are designed to monitor for negative impacts to community-related HCV attributes. Hence it is opinion of verification team that the mitigation actions were implemented in accordance with the validated project description.

3.5.3 Net Positive Community Well-being (CM2.3)

The audit team reviewed the PIR and confirmed that the anticipated net well-being impacts of the project are predicted to be positive for all identified community groups. While on site, the audit team interviewed local community members who confirmed these claims.

The audit team therefore concludes that the project's anticipated net well-being impacts for this verification period are overall positive for all identified community groups compared with their anticipated well-being conditions under the without-project land use scenario.

3.5.4 Protection of High Conservation Values (CM2.4)

The audit team has provided an assessment of the requirements of this section based on the information in the PIR and confirmed that the community-related HCV's are not negatively affected by the project. Areas identified as HSC areas will similarly not be negatively impacted. While on site, the audit team interviewed local community members for verification of the information.

3.5.5 Other Stakeholder Impacts (CM3.2-CM3.3)

The relevant district government is identified as the other stakeholders as per information verified in the PD. The benefits anticipated for these districts include additional financial resources for district development as well as increase of conservation awareness, capacity building, and revenues from carbon sale which is accepted by the audit team as appropriate. During this verification it was assessed by the verification team by means of site observations the net impacts of project activities on the well-being of other stakeholders is positive.

3.5.6 Community Monitoring Plan (CM4.1, CM4.2, GL2.2, GL2.3, GL2.5)

The validation team has performed an independent assessment of the community monitoring plan and verifies it is meeting the CCB standards requirements. The Plan based on the validated PD was assessed for the implementation in the PIR and confirmed that it employs the Theory of Change and impact assessments. The audit team confirmed that the plan has selected variables that are directly linked to the project's community development objectives and impacts, and that the appropriate sampling methods, frequencies, and reporting methods are used. While on site, the audit team interviewed local community members who confirmed that the community variables were produced as a result of the consultation process and are anticipated to be positive. As there was no deviation from the validated PD, it is the opinion of the validation team that the community monitoring plan was carried out in accordance to the validated project description.

3.5.7 Community Monitoring Plan Dissemination (CM4.3)

The audit team has assessed that adequate dissemination of the monitoring plan and results was done. Through interviews with the relevant project personnel, the audit team confirmed that the climate monitoring plan is made available for public review in the Project Office. In addition, results will be communicated to the communities and other stakeholders during the periodic meetings. Results of monitoring is planned to be made publicly available during each verification event.

3.5.8 Optional Gold Level: Short-term and Long-term Community Benefits (GL2.2)

Based on public information it has been validated by the audit team that the project zone is in a low human development country. As the project is primarily implemented by the government entity such as the WMA which the PP actively supports, and strengthens the land management and ownership of the

communities in the five villages, the project qualifies under exceptional community benefits criteria. The quantification of the community benefits achieved as summarised in the monitoring plan was verified by means of site observation and document review. Hence it is overall conclusion of audit team that whether the project is on track to generate short term and long term net positive well-being benefits for smallholders/community members.

Some of the short term and long term achieved by the project during the verification are summarised below:

- increased understanding of natural resource management,
- improved management capacity by the WMA and local leaders through training,
- solar electricity and radio facilities added to WMA office,
- gaining of rights of non-timber forest products,
- employment of VGS and continued functioning of the Women's Forums.
- Approval of RMP

3.5.9 Optional Gold Level: Smallholder/community member Risks (GL2.3)

Not applicable as it has not been reported in the PIR

3.5.10 Optional Gold Level: Marginalized and/or Vulnerable Community Groups (GL2.4)

The validation team has conducted an independent assessment to verify the steps taken by the PP for compliance of project in line with GL2.4 requirements on the marginalized and/or vulnerable community groups that the project is engaging that is planned to gain net positive benefits. For each community group, the Net positive impacts, Benefit access and Negative impacts have been verified based on information provided in the PIR. Non-cattle owning Masai are identified as vulnerable and are expected to experience net positive impacts from the project as a result of several activities. These include improved livelihoods resulting from projects supported by the Village Government using project carbon revenues. The progress by the project during this verification indicates that the implementation is on track to address the requirements of this section.

3.5.11 Optional Gold Level: Net Impacts on Women (GL2.5)

As per the benefits and implemented activities, the audit team by means of interviews and document review assessed that the project will seek to have a positive influence on the status of women in the project area with benefits including improved livelihoods, influence in decision-making and has organized forums for their training. The information in PIR supports the information made available to the audit team and hence it is the opinion of the validation team that the CCB criteria are addressed satisfactorily.

3.5.12 Optional Gold Level: Benefit Sharing Mechanisms (GL2.6)

The validation team has assessed by means of information in the PD and site visit observations that the project's benefit sharing mechanism(s) meet the requirements of GL2.6. As there are no deviations observed during this verification, it is the opinion of the audit team that benefit sharing mechanism has been implemented according to the project's validated design.

3.5.13 Optional Gold Level: Governance and Implementation Structures (GL2.8)

A step wise assessment was done by the audit team on the project's governance and implementation structures, and any relevant self-governance or other structures used for aggregation of

smallholders/community members. It has been validated that the project's governance and implementation structures enable full and effective participation of smallholders/community members in project decision-making and implementation.

The verification team by means of site visit interviews and document review has assessed the following information to be correctly stated in the PIR and verified from information in the PD:

- The project governance structure is led by Carbon Tanzania in partnership with the Makame WMA. Carbon Tanzania, as the project proponent, holds overall responsibility for the project in ensuring that its objectives are attained.
- The local government is also a key actor in project governance and implementation, particularly in ensuring that the forest protection and village development activities are implemented.
- The project relies on the existing governance structure represented by the Makame Wildlife Management Area administration. The governance of the WMA is distributed between the Village Council and the Authorised Association (AA), in collaboration with the District Government. It is these authorities that will enforce the WMA resource management plan which forms the foundation of this project, through which the enactment of traditional land management will create much of the CCB benefits.
- The responsibilities of these authorities and the regulations are based on the WMA Regulations 2012.
- In addition, project governance and implementation is supported by UCRT

As there are no deviations observed during this verification, the information is assessed to meet the requirements of GL 2.8

3.5.14 Optional Gold Level: Smallholders/Community Members Capacity Development (GL2.9)

The verification team by means of site visit interviews and document review has assessed the information on capacity development is sufficient and ensures that the smallholders and/or community members, and relevant local organizations or institutions, to participate effectively and actively in project design, implementation and management. Hence it is overall conclusion of audit team that sufficient capacity is being developed by the project of smallholders/community members, and relevant local organizations or institutions, to participate effectively and actively in project design, implementation and management.

3.6 Biodiversity

3.6.1 Biodiversity Changes (B2.1)

The audit team has performed a step wise assessment of the biodiversity impacts during the verification period. Net positive biodiversity impacts on the 6 target threatened species present within the project area have been summarized in the PIR which indicate a stable or increase of population. This accuracy of the data submitted was reviewed and it is the opinion of the audit team that the project's assessment of changes in biodiversity resulting from project activities in the project zone during the monitoring period are accurate.

3.6.2 Mitigation Actions (B2.3)

The project does not anticipate negative impacts to biodiversity in the project area. The audit team agrees given that the primary project activity is protection of the forest, and thereby the species' habitat. Therefore no mitigation measures are needed. For the maintenance of the HCV attributes of the project area, the audit team agrees that no measures beyond the project activities such as effective implementation of the RMP are needed. During this verification, as the effective implementation of the RMP was observed, no negative impacts were observed.

3.6.3 Net Positive Biodiversity Impacts (B2.2)

The audit team is of the opinion that the implementation of the project activities designed to avoid deforestation and forest degradation are expected to have only positive impacts on the project's biodiversity as the status of biodiversity is inherently correlated with the climate benefits of the project. The information in the PIR and onsite observations supports this assessment sufficiently.

As there are no deviations from the PD, the audit team concludes that the project has generated net positive biodiversity impacts from the verifiable implemented actions.

3.6.4 High Conservation Values Protected (B2.4)

The project does not anticipate negative impacts to biodiversity-related HCV's in the project area. The audit team agrees given that the primary project activity is protection of the forest, and thereby the species' habitat. For the maintenance of the biodiversity HCV attributes of the project area, the audit team concludes that positive impacts has been observed for this verification period.

3.6.5 Invasive Species (B2.5)

This indicator is not applicable as no species are used by the project, and furthermore no invasive species are used in the project.

3.6.6 Impacts of Non-native Species (B2.6)

This indicator is not applicable as no non native species are used in the project

3.6.7 GMO Exclusion (B2.7)

This indicator is not applicable as no GMO's will be used to generate emission reductions or removals

3.6.8 Inputs Justification (B2.8)

It was verified by the audit team that No agricultural inputs have currently been used for this verification period.

3.6.9 Negative Offsite Biodiversity Impacts (B3.1) and Mitigation Actions (B3.2)

The audit team concludes that only positive biodiversity impacts have occurred due to the project; as a result, potential negative offsite impacts on biodiversity outside the project zone are not likely.

3.6.10 Net Offsite Biodiversity Benefits (B3.3)

The audit team concludes that only positive biodiversity impacts have occurred due to the project; as a result, evaluation of unmitigated offsite impacts is not applicable.

3.6.11 Biodiversity Monitoring Plan (B4.1, B4.2, GL3.4)

It was verified by the audit team that the Net positive biodiversity impacts on the 6 target threatened species within the project area have been analysed.

This data was established through annual ground transects, camera trapping exercise giving an indication of relative abundance (calculated as the mean number of independent photographic 'events' per trap day x 100) and occupancy (where relevant). Occupancy was further modelled using spoor counts in April 2019.

The audit team confirmed that the plan has selected biodiversity indicators that are directly linked to the project's biodiversity objectives, and that the appropriate sampling methods, frequencies, and reporting methods are used. Based on onsite observations and interviews of the field team involved in the surveys, carbon plot monitoring, the competence to perform the wildlife and vegetation monitoring protocols was verified. In addition, the audit team was able to independently confirm the accuracy of the GIS and remote sensing work performed by the project partners.

The data and summary provided in table 1.3.1 are verified to be in line with the biodiversity monitoring plan and have been carried out in accordance to the validated project description.

3.6.12 Biodiversity Monitoring Plan Dissemination (B4.3)

The audit team has assessed that adequate dissemination of the monitoring plan and results was done. Through interviews with the relevant project personnel, the audit team confirmed that the climate monitoring plan is made available for public review in the Project Office. In addition, results will be communicated to the communities and other stakeholders during the periodic meetings. Results of monitoring is planned to be made publicly available during each verification event.

3.6.13 Optional Gold Level: Trigger Species Population Trends (GL3.3)

The audit team has performed a step wise assessment of the biodiversity impacts during the verification period. Net positive biodiversity impacts on the 6 target threatened species present within the project area have been summarized in the PIR which indicate a stable or increase of population. Trigger species as identified in the section above are part of the biodiversity monitoring plan and the projected trends in trigger species populations and the projections meet the requirements of GL3.2 and GL3.3.

This accuracy of the data submitted was reviewed and it is the opinion of the audit team that the project's assessment of changes in biodiversity resulting from project activities in the project zone during the monitoring period are accurate.

3.6.14 Optional Gold Level: Effectiveness of Threat Reduction Actions (GL3.4)

Not applicable as per information in validated PD and PIR

3.7 Additional Project Implementation Information

It is the overall conclusion of the audit team that the additional project implementation information provided is suitable for the verification of the project's adherence to its validated project description.

3.8 Additional Project Impact Information

Not applicable as per information in validated PD and PIR

4 VERIFICATION CONCLUSION

Carbon Tanzania (CT, Ltd.) has appointed EPIC Sustainability Services Private Limited to perform the first periodic verification under the VCS and CCB standards. The assessment covered the scope of the verification of the emission reductions reported and sustainable benefits achieved for the project titled “Makame Savannah REDD” VCS ID: 1900 for the period from 27 April 2016 to 26 April 2019.

The verification was based on the Project Implementation Report (PIR), and other supporting documents submitted to the assessment team by the client. The assessment criteria was based on the requirements in VCS Standard v4.0, the applied GHG methodology “VM0007: REDD Methodology Modules (REDD-MF), Version 1.5” and its associated modules as well as the VCS Non- Permanence Risk, the VT0001 “Tool for the demonstration and assessment of additionality in VCS Agriculture, Forestry and Other Land Use (AFOLU) Project Activities” v3 and the CCB Standard v3.1.

The project combines sustainable development with carbon sequestration and supports biodiversity conservation efforts. Carbon credit sales generate participant income and provide project funding which contribute to infrastructure benefits. These sustainable benefits are verified by the CCB certification.

The net community and biodiversity benefits achieved by the project during the project implementation period have been verified with the actual implementation and verified to be a valid estimate. Further, the implementation verified during this period is on track to achieve their stated net community and biodiversity benefits and community and biodiversity objectives.

The verification of the GHG emission reductions was based on the validated PD, the baseline and monitoring methodology, validation reports, emission reduction spread sheets and other supporting documents made available to the EPIC verification team by the Project Proponent. The Project Proponent management team is responsible for the preparation and reporting of GHG emissions data, and the reported GHG emission reductions based on the project monitoring plan.

It is the responsibility of the EPIC verification team to express an independent GHG verification opinion on the reported GHG emissions from the project for the monitoring period, from 27 April 2016 to 26 April 2019, and on the calculation of GHG emission reductions from the project based on the verified emissions for the same period.

EPIC concludes, with a reasonable level of assurance that the net anthropogenic GHG removals of the “Makame Savannah REDD” for the period 27 April 2016 to 26 April 2019 are fairly stated in the monitoring report (version 3.0), dated 5th October 2020. The net anthropogenic GHG removals have been calculated correctly on the basis of the approved baseline and monitoring Methodology and the monitoring plan contained in the validated and registered VCS-PD dated 30th September 2020.

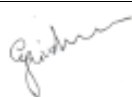
Verified GHG emission reductions and removals in the above verification period:

Years	Estimated baseline emissions or removals (tCO ₂ e)	Estimated project emissions or removals (tCO ₂ e)	Estimated leakage emissions (tCO ₂ e)	Risk buffer (%)	Deductions for AFOLU pooled buffer account (tCO ₂ e)	NER REDD	Adjusted NER REDD	GHG credits eligible for issuance as VCUs (tCO ₂ e)
2017	8,283	6,218	0	19%	392	2,066	1,908	1,516
2018	67,247	6,218	5,438	19%	11,596	55,591	51,354	39,759
2019	176,183	6,218	16,853	19%	32,293	153,112	141,444	109,150
Total	251,714	18,654	22,291	19%	44,281	210,769	194,706	150,425

Monitoring period: From [27-04-2016] to [26-04-2019]

Verified GHG emission reductions and removals in the above verification period:

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)
2017	8,283	6,218	0	1,516
2018	67,247	6,218	5,438	39,759
2019	176,183	6,218	16,853	109,150
Total	251,714	18,654	22,291	150,425

Prepared and submitted by:

Dr G Vishnu
(Lead Auditor)

APPENDIX 1: NON-PERMANENCE RISK ASSESSMENT CHECKLIST

Risk Factor	Risk Factor and/or Mitigation Description	Risk rating as per WWC LLC	VVB opinion	Method of verification
INTERNAL RISKS				
Project Management				
a)	Species planted (where applicable) associated with more than 25% of the stocks on which GHG credits have previously been issued are not native or proven to be adapted to the same or similar agro-ecological zone(s) in which the project is located.	0	The Makame REDD+ Project does not involve any reforestation / afforestation with non-native species for carbon stocks. Not Applicable for the verification period.	Validation report, Project Design, PIR, risk report and Onsite inspection
b)	Ongoing enforcement to prevent encroachment by outside actors is required to protect more than 50% of stocks on which GHG credits have previously been issued.	2	The on-site visit inspection indicated that the ongoing enforcement is required as applicable for the verification period. No incidents of encroachment were reported for the verification period.	Onsite inspection, PIR and risk report
c)	Management team does not include individuals with significant experience in all skills necessary to successfully undertake all project activities (i.e., any area of required experience is not covered by at least one individual with at least 5 year's experience in the area).	0	It was verified during the on-site visit that both management team and consulting and local teams has extensive experience that exceeds five areas in all areas. Hence the experience and skills of the personnel are considered as sufficient to meet the criteria. Not Applicable	Validation report, Project Design, PIR, risk report and interviews
d)	Management team does not maintain a presence in the country or is located more than a day of travel from the project site, considering all parcels or polygons in the project area.	0	It was verified that full time professional staff are located in the country and Carbon Tanzania has management staff and field personnel. The activities in the field including training, quantification and auditing are coordinated by managers, quantifiers and farmers, being in touch with project managers.	Validation report, Project Design, PIR, risk report and interviews

			Not Applicable	
e)	Mitigation: Management team includes individuals with significant experience in AFOLU project design and implementation, carbon accounting and reporting (e.g., individuals who have successfully managed projects through validation, verification and issuance of GHG credits) under the VCS Program or other approved GHG programs.	-2	It was verified during the on-site visit that both management team and consulting and local teams has extensive experience that exceeds five areas in all areas. Hence the experience and skills of the personnel are considered as sufficient to meet the criteria. Not Applicable Hence the experience and skills of the personnel are considered as sufficient to meet the criteria.	Onsite inspection, project webpage
f)	Mitigation: Adaptive management plan in place.	-2	The WAM RMP provide a framework for continued management of forest land within each village's jurisdiction, and provide them agency to take adaptive measures to conserve forested areas.	Onsite inspection ,Document review
Total Project Management [a + b + c + d + e + f]		-2	Risk rating perceived is appropriate in this section considering all applicable criteria	Applicable as above
Financial Viability				
a)	Project cash flow breakeven point is greater than 10 years from the current risk assessment.	0	Not Applicable	project financial plan
b)	Project cash flow breakeven point is between 7 and up to 10 years from the current risk assessment	0	Not Applicable	project financial plan
c)	Project cash flow breakeven point between 4 and up to 7 years from the current risk assessment.	0	Not Applicable	project financial plan
d)	Project cash flow breakeven point is less than 4 years from the current risk assessment.	0	Not Applicable	project financial plan
e)	Project has secured less than 15% of funding	0	Not Applicable	project financial plan

	needed to cover the total cash out before the project reaches breakeven			
f)	Project has secured 15% to less than 40% of funding needed to cover the total cash out required before the project reaches breakeven.	2	It is verified from the project financial plan and Project cash flow	project financial plan
g)	Project has secured 40% to less than 80% of funding needed to cover the total cash out required before the project reaches breakeven	0	Not Applicable	project financial plan
h)	Project has secured 80% or more of funding needed to cover the total cash out before the project reaches breakeven.	0	Not Applicable	project financial plan
i)	Mitigation: Project has available as callable financial resources at least 50% of total cash out before project reaches breakeven.	0	It is verified from the project financial plan that Project cash flow	project financial plan
	Total Financial Viability (FV) [as applicable, ((a, b, c or d) + (e, f, g or h) + i)]	2	Risk rating perceived is appropriate in this section considering all applicable criteria	Applicable as above
Opportunity Cost				
a)	NPV from the most profitable alternative land use activity is expected to be at least 100% more than that associated with project activities; or where baseline activities are subsistence-driven, net positive community impacts are not demonstrated.	8	The highest risk rating has been chosen as the NPV from the most profitable alternative land use activity (annual crop agriculture) is expected to be at least 100% more than that associated with project activities	Document review of validation report and risk report. An NPV analysis is not required as the chosen risk rating is the highest and most conservative
b)	NPV from the most profitable alternative land use activity is expected to be between 50% and up to 100% more than from project activities.	0	NPV from the most profitable alternative land is expected to be between 50% and up to 100% more than from project activities	Document review of validation report and PD and validated risk report
c)	NPV from the most	0	NPV from the most	Document review of

	profitable alternative land use activity is expected to be between 20% and up to 50% more than from project activities.		profitable alternative land use activity is expected to be between 20% and up to 50% more than from project activities	validation report and PD and validated risk report
d)	NPV from the most profitable alternative land use activity is expected to be between 20% more than and up to 20% less than from project activities; or where baseline activities are subsistence-driven, net positive community impacts are demonstrated.	0	NPV from the most profitable alternative land use activity is expected to be between 20% more than and up to 20% less than from project activities; or where baseline activities are subsistence-driven, net positive community impacts are demonstrated	Document review of validation report and PD and validated risk report
e)	NPV from project activities is expected to be between 20% and up to 50% more profitable than the most profitable alternative land use activity.	0	NPV from project activities is expected to be between 20% and up to 50% more profitable than the most profitable alternative land use activity	Document review of validation report and PD and validated risk report
f)	NPV from project activities is expected to be at least 50% more profitable than the most profitable alternative land use activity.	0	NPV from project activities is expected to be at least 50% more profitable than the most profitable alternative land use activity	Document review of validation report and PD and validated risk report
g)	Mitigation: Project proponent is a non-profit organization.	-2	The project proponent, Carbon Tanzania, is a non-profit organization.	Not Applicable
h)	Mitigation: Project is protected by legally binding commitment (see Section 2.2.4) to continue management practices that protect the credited carbon stocks over the length of the project crediting period.	-2	Project is protected by legally binding commitment to continue management practices that protect the credited carbon stocks over the length of the project crediting period (see project longevity) The project is protected by a 30-year contract between Carbon Tanzania and Makame WMA to continue management practices that protect the credited carbon stocks over the length of the project crediting period. The contract was signed 27 April 2017 and is in effect	Document review of contracts

			through 26 April 2046.	
i)	Mitigation: Project is protected by legally binding commitment (see Section 2.2.4) to continue management practices that protect the credited carbon stocks over at least 100 years.	0	Project is protected by legally binding commitment to continue management practices that protect the credited carbon stocks over the length of the project crediting period (see project longevity)	Not Applicable.
	Total Opportunity Cost (OC) [as applicable, (a, b, c, d, e or f) + (g or h)]	4	Risk rating perceived is appropriate in this section considering all applicable criteria	Applicable as above
Project Longevity				
a)	Without legal agreement or requirement to continue the management practice.	0	Not Applicable.	Not Applicable.
b)	With legal agreement or requirement to continue the management practice.	15 $15 = (30 - 30/2)$	The project is protected by a 30-year contract between Carbon Tanzania and Makame WMA to continue management practices that protect the credited carbon stocks over the length of the project crediting period. The contract was signed 27 April 2017 and is in effect through 26 April 2046.	Document review of contracts
	Total Project Longevity (PL)	15	Risk rating perceived is appropriate in this section considering all applicable criteria	Applicable as above
	Total Internal Risk (PM + FV + OC + PL)	19	Risk rating perceived is appropriate in this section considering all applicable criteria	Applicable as above
EXTERNAL RISKS				
Land Tenure and Resource Access/Impacts				
a)	Ownership and resource access/use rights are held by same entity(s).	0	Not Applicable	Not Applicable
b)	Ownership and resource access/use rights are held by different entity(s) (e.g., land is government owned and the project proponent holds a lease or concession).	2	The individual villages have rights to resource access, but the government retains the right to ownership.	Document review
c)	In more than 5% of the project area, there exist disputes over land	0	Not Applicable	Not Applicable

	tenure or ownership.			
d)	There exist disputes over access/use rights (or overlapping rights).	0	Not Applicable as no known disputes exist for the current verification period.	Not Applicable
e)	WRC projects unable to demonstrate that potential upstream and sea impacts that could undermine issued credits in the next 10 years are irrelevant or expected to be insignificant, or that there is a plan in place for effectively mitigating such impacts.	0	Not Applicable	Not Applicable
f)	Mitigation: Project area is protected by legally binding commitment (e.g., a conservation easement or protected area) to continue management practices that protect carbon stocks over the length of the project crediting period.	-2	The project is protected by a 30-year contract between Carbon Tanzania and Makame WMA to continue management practices that protect the credited carbon stocks over the length of the project crediting period. The contract was signed 27 April 2017 and is in effect through 26 April 2046.	Document review of contracts
g)	Mitigation: Where disputes over land tenure, ownership or access/use rights exist, documented evidence is provided that projects have implemented activities to resolve the disputes or clarify overlapping claims.	0	No land disputes exist over land tenure, ownership or access/use rights among the villages in and around the project area.	Not Applicable
	Total Land Tenure (LT) [as applicable, ((a or b) + c + d + e+ f + g)]	0	Risk rating perceived is appropriate in this section considering all applicable criteria	Applicable as above
Community Engagement				
a)	Less than 50 percent of households living within the project area, who are reliant on the project area, have been consulted.	0	Representatives from 8 villages located within the project area who represent the households have been consulted as detailed in the Mpanda District Council Reconnaissance Report.	Site visit, Document review.
b)	Less than 20 percent of households living within 20 km of the project boundary	0	More than 20 percent of households living within 20 km of the project boundary outside the project area,	Site visit, Document review.

	outside the project area, and who are reliant on the project area, have been consulted.		and who are reliant on the project area, have been consulted. This includes the five member villages of Makame WMA	
c)	Mitigation: The project generates net positive impacts on the social and economic well being of the local communities who derive livelihoods from the project area	-5	The project generates net positive impacts on the social and economic well-being of the local communities who derive livelihoods from the project area.	Site visit, Document review.
d)	Total Community Engagement (CE) [where applicable, (a+b+c)]	-5	Risk rating perceived is appropriate in this section considering all applicable criteria.	Applicable as above
Political risk				
a)	Governance score of less than -0.79.	0	Not Applicable	Not Applicable
b)	Governance score of -0.79 to less than -0.32.	4	The requirement for the non-permanence risk tool is to average the governance score for the last 5 years. The score is calculated as -0.48 for the years 2014 through 2018 (the most recent available data).	Verified from VCS guidance based on the World Bank Institute Worldwide Governance Indicators from the website.
c)	Governance score of -0.32 to less than 0.19.	0	Not Applicable	Not Applicable
d)	Governance score of 0.19 to less than 0.82.	0	Not Applicable	Not Applicable
e)	Governance score of 0.82 or higher.	0	Not Applicable	Not Applicable
f)	Mitigation: Country is implementing REDD+ Readiness or other activities, as set out in this Section 2.3.3.	-2	Tanzania is engaged in the World Bank Forest Carbon Partnership Facility ¹ and is implementing REDD+ readiness activities.	Document review
g)	Total Political (PC) [as applicable ((a, b, c, d or e) + f)]	2	Risk rating perceived is appropriate in this section considering all applicable criteria	Applicable as above
	Total External Risk (LT + CE + PC)	0	Risk rating perceived is appropriate in this section considering all applicable criteria	Applicable as above
NATURAL RISKS				
F	Fire	0	There is no natural fire categorized as catastrophic	Site visit inspection

¹ <https://www.forestcarbonpartnership.org/tanzania>

			risk in this ecosystem as the fires risk is reduced by the grazing activities as applicable for the current verification period	
PD	Pest and Disease Outbreaks	0	As a relatively intact natural ecosystem, there is no likelihood nor reported examples of pest outbreaks causing destruction to this area of the project zone Forest as applicable for the current verification period	Site visit inspection
W	Extreme Weather	0	It has been verified for that there has been no forest loss events due to extreme weather in the project zone as applicable for the current verification period	Site visit inspection
G	Geological Risk	0	Historical data in the region indicates that risks such as earthquakes, volcanic activity have been identified to impact the project as applicable for the current verification period	Document review
ON	Other Natural risk	NA	NA	NA
	Total Natural Risk (as applicable, F + PD + W + G + ON)	0	Risk rating perceived is appropriate in this section considering all applicable criteria	Applicable as above

Summary of assessment:

Risk Category	Risk rating	Requirements for risk rating
Internal risk	19	Note: - Overall risk rating shall be rounded up to the nearest whole percentage. - The minimum risk rating shall be 10, regardless of the risk rating calculated. - If the overall risk rating is over 60 then the project fails the entire risk analysis.
External risk	0	
Natural risk	0	
Overall Risk rating a) + b) + c)	19	
Total risk assessment buffer applicable	19%	VVB Assessment: The buffer applied reflects the risk rating as applicable to the project activity and meets the requirements of AFOLU Non-Permanence Risk Tool.
Gross emission reductions (GERs)	2,188,746	
Emission reductions buffer	44,281	
Net emission reductions	150425	

APPENDIX 2: VALUES (EX-ANTE AND EX- POST) AND ESTIMATIONS AND THEIR VALIDATION

Parameters and Values used to Calculate Annual Ex-Ante Project Emissions.

Parameter	Assessment by validation team
Net carbon stock change as a result of degradation in the project area in the project case in stratum i at time t; t CO ₂ e	This is calculated as Zero as No emissions from degradation are expected to occur due to the prevalence of available fuelwood outside the project area. Forest patrols will further deter degradation activities. Ex-ante degradation is therefore estimated as zero. Emissions resulting from degradation due to selective logging of FSC certified areas (parameter $\Delta CP_{SelLog,i,t}$) equates to zero as no selective FSC logging occurs in either the baseline or with-project case. Hence justification is accepted by audit team
Net carbon stock change as a result of natural disturbance in the project area in the project case in stratum i at time t; t CO ₂ e	This is calculated as Zero Forests in Mpanda district have a low incidence of natural disturbance and hence no disturbances are likely which result in tree death and CO₂ emissions. Hence justification is accepted by audit team
Greenhouse gas emissions as a result of deforestation and degradation activities within the project area in the project case in stratum i in year t; t CO ₂ e	The calculations were verified from excel sheet provided.
Net carbon stock change as a result of forest growth and sequestration during the project in areas projected to be deforested in the baseline in stratum i at time t; t CO ₂ e	Excluded on Conservative basis

Parameters and Values used to Calculate Annual Ex-Ante Deforestation Emissions

Parameter	Description	Justification
$\Delta CP_{DefPA,i,t}$	Net carbon stock change as a result of deforestation in the project case in the project area in stratum i at time t; t CO ₂ e	Table 3.25 of PD, calculated annually as per methodology
$A_{DefPA,u,i,t}$	Area of recorded deforestation in the project area stratum i converted to land use u at time	$A_{DefPA,u,i,t}$ is derived assuming a project effectiveness of 80% (i.e., 20%

	t; ha	of baseline deforestation occurs in the project case). Table 3.25 of PD, calculated annually as per methodology
$\Delta C_{pools,Def,u,i,t}$	Net carbon stock changes in all pools in the project case in land use u in stratum i at time t; t CO ₂ e ha-1	This value is the strata area weighted mean based on forest inventory sheet $\Delta C_{pools,Def,u,i,t} = 68.3$

Parameters and Values Used to Calculate Annual Ex-Ante GHG Emissions

Parameter	Description	Justification
GHGP,E,i,t	Greenhouse gas emissions as a result of deforestation activities within the project area in the project case in stratum i in year t; t CO ₂ e	Table 3.27 a of PD, calculated annually as per methodology
EBiomassBurn,i,t	Non-CO ₂ emissions due to biomass burning in stratum i in year t; t CO ₂ e	Table 3.27 b of PD, calculated annually as per methodology

Parameters and Values used to Calculate Annual Ex-Ante GHG Emissions in the Leakage Belt.

Parameter	Description	Justification
$\Delta CLK-ASU-LB$	Net CO ₂ emissions due to unplanned deforestation displaced from the project area to the leakage belt; t CO ₂ e	Calculated as per Table 3.30 as per methodology
$\Delta C_{BSL,LK,unplanned}$	Net CO ₂ emissions in the baseline from unplanned deforestation in the leakage belt; t CO ₂ e	Derived as per Table 3.38 as per methodology
$\Delta CP, LB$	Net greenhouse gas emissions within the leakage belt in the project case t CO ₂ e	Ex-ante estimate is calculated by multiplying the estimated baseline carbon stock changes and greenhouse gas emissions for the project area by a factor < 1.0 representing the % of deforestation expected to be displaced into the leakage belt. This result is then added to the estimated baseline for the leakage belt. Calculated as per Table 3.30 as per methodology

Parameters and Values used to calculate the Proportional Leakage for Areas with Immigrating Populations.

Parameter	Description	Justification
LKPROP	Proportional leakage for areas with immigrating populations; proportion	0.073, calculated as per methodology
PROIMM	Estimated proportion of baseline deforestation caused by immigrating population; proportion	0.091 calculated as per methodology
PROPLB	Area of forest available for unplanned deforestation as a proportion of the total national forest area available for unplanned deforestation; proportion	0.0036751 calculated as per methodology
PROPCS	The proportional difference in stocks between areas of forest available for unplanned deforestation both inside and outside the Leakage Belt; proportion	0.800 calculated as per methodology

Parameters and Values used to Calculate the Net CO₂ Emissions due to Unplanned Deforestation Displaced Outside the Leakage Belt.

Parameter	Description	Justification
ΔCLK-ASU,OLB	Net CO ₂ emissions due to unplanned deforestation displaced outside the leakage belt; t CO ₂ e	Calculated in Table 3.35, as per methodology
ΔCBSL,LK,unplanned	Net CO ₂ equivalent emissions in the baseline from unplanned deforestation in the leakage belt; t CO ₂ e	Calculated in Table 3.38, as per methodology
ΔCP,LB	Net CO ₂ equivalent emissions within the leakage belt in the project case; t CO ₂ e	Calculated in Table 3.30, as per methodology
LKPROP	Proportional leakage for areas with immigrating populations; proportion	Calculated as per methodology

Parameters and Values used to Estimate Total Leakage due to the Displacement of Unplanned Deforestation.

Parameter	Description	Justification
ΔCLK-AS,unplanned	Net greenhouse gas emissions	Calculated in Table 3.37, as per

	due to activity shifting leakage for projects preventing unplanned deforestation Net CO ₂ emissions; t CO ₂ e	methodology
ΔCLK-ASU-OLB	Net CO ₂ emissions due to unplanned deforestation displaced outside the leakage belt; t CO ₂ e	Calculated in Table 3.35, as per methodology
ΔCLK-ASU-LB	Net CO ₂ emissions due to unplanned deforestation displaced from the project area to the leakage belt; t CO ₂ e	Calculated in Table 3.30, as per methodology

Parameters for monitoring:

Parameter	Description	Justification
Net CO ₂ emissions in the baseline from unplanned deforestation in the project area	Derived and calculated in Section 3.2 of PD	<i>Used in Calculation of baseline emissions, estimated correctly</i>
Net CO ₂ emissions in the baseline from unplanned deforestation in the leakage belt	Derived and calculated in Section 3.2 of PD	<i>Used in Calculation of leakage emissions, estimated correctly</i>
Carbon fraction of biomass	IPCC 2006GL	<i>Global default value applied coorectly</i>
Average aboveground tree carbon stock for forests available for unplanned deforestation outside the Leakage Belt	Values transformed from NAFORMA data. p48 NAFORMA, Ministry of Natural Resources and Tourism, Tanzania Forest Services Agency, Government of Finland, AND FAO. 2015. NAFORMA - National Forest Resources Monitoring and Assessment of Tanzania Mainland - Main Results. Estimated in Section 3.2 of PD	<i>Used in Calculation of leakage emissions, estimated correctly</i>
Allometric equation for species j linking measured tree variable(s) to aboveground biomass of living trees.	Data resulting from the forest inventory	<i>Justified as national level region specific data is used</i>
Root to shoot ratio appropriate to species or forest type / biome	Root biomass density was calculated using an IPCC root to shoot ratio of 0.28 for dry tropical forest, as found in the VM-0007 module CP-AB, "Estimation of carbon stocks in the above- and belowground biomass in live tree and non-tree pools".	<i>Calculated for baseline and project emissions as per VMD0001</i>

Net carbon stock change as a result of deforestation in the project case in the project	Year	$\Delta CP, DefPA, i, t$ (t CO2-e)		Calculated correctly as per VMD0015 equation 3. Monitoring frequency- at least 5 years
	2017	5,917		
	2018	5,917		
	2019	5,917		
Net carbon stock change as a result of deforestation in the project case in the leakage belt in stratum i at time t	Year	$\Delta CP, DefLB, i, t$ (t CO2-e)		Calculated correctly as per VMD0015 equation 4. Monitoring frequency- at least 5 years
	2017	26,489		
	2018	26,489		
	2019	26,489		
Net carbon stock change as a result of natural disturbance in the project case in the project area in stratum i at time t	Year	$\Delta CP, DistPA, i, t$ (t CO2-e)		Calculated correctly as per VMD0015 equation 20. Monitoring frequency- at least 5 years
	2017	0		
	2018	0		
	2019	0		
Area of recorded deforestation in the project area stratum i converted to land use u at time t	None.			Estimated as per ARCGIS. Monitoring frequency- at least 5 years
Area of recorded deforestation in the leakage belt stratum i converted to land use u at time t	Monitoring responsibilities are listed in section 3.3. used for calculation of leakage			Estimated as per ARCGIS. Monitoring frequency- at least 5 years
Area impacted by natural disturbance in post-natural disturbance stratum q in stratum i, at time t		$A_{DistPA, q, i, t}$		Estimated as per ARCGIS. Monitoring frequency- at least 5 years
	2017	0		
	2018	0		
	2019	0		
Carbon stock in all pools in the baseline case in stratum i	Strata	CBSL _i (t CO2-e ha-1)		Calculated based on forest inventory - frequency- at least 10 years
	MAS	54.6		

	MWF	99.0		
Carbon stock in all pools in post-deforestation land use u in stratum i	0			Calculated correctly as per VMD0015 equation 5. Monitoring frequency- at least 10 years
Area potentially impacted by degradation processes in stratum i	0, used for project emissions			Repeated each time the PRA indicates a potential for degradation. PRA conducted every < 2 years
Biomass carbon of trees cut and removed through degradation process from plots measured in stratum i at time t	0			Calculated correctly as per VMD0015 equation 8. Monitoring frequency- at least 5 years
Total area of degradation sample plots in stratum i	Calculated using ARCGIS			frequency- at least 5 years
Net carbon stock changes as a result of degradation in stratum i in the project area at time t	Monitoring responsibilities are listed in section 3.3.			Calculated correctly as per VMD0015 equation 8. Monitoring frequency- at least 5 years
Estimated proportion of baseline deforestation caused by immigrating population	Calculated based on results of survey of communities in the area around the project –used for leakage calculation.			frequency- at least 5 years
diameter at breast height	Monitored during the course of each forest inventory – used for leakage and project emissions			Verified from forest inventory and SOP frequency- at least

		10 years												
Basal diameter	Monitored during the course of each forest inventory – used for leakage and project emissions	Verified from forest inventory and SOP frequency- at least 10 years												
Height of tree	Monitored during the course of each forest inventory – used for leakage and project emissions	Verified from forest inventory and SOP frequency- at least 10 years												
Percentage uncertainty (expressed as 95% confidence interval as a percentage of the mean where appropriate) for carbon stocks and greenhouse gas sources in the with-project case (1,2...n represent different carbon pools and/or GHG sources)	Calculation of baseline emissions Calculation of project emissions	Monitored at least once every 10 years												
Carbon stock or GHG sources (e.g. trees, dead wood, soil organic carbon, emission from fertilizer addition, emission from biomass burning etc.) in the baseline case	<table><tr><td>Strata</td><td>Live aboveground tree biomass</td><td>Belowground biomass</td><td>Standing dead wood</td></tr><tr><td>MAS</td><td>3,062,053</td><td>857,375</td><td>11,415</td></tr><tr><td>MWF</td><td>2,446,006</td><td>684,882</td><td>44,024</td></tr></table>	Strata	Live aboveground tree biomass	Belowground biomass	Standing dead wood	MAS	3,062,053	857,375	11,415	MWF	2,446,006	684,882	44,024	Verified from forest inventory. Monitored at least once every 10 years
Strata	Live aboveground tree biomass	Belowground biomass	Standing dead wood											
MAS	3,062,053	857,375	11,415											
MWF	2,446,006	684,882	44,024											
Average aboveground biomass stock before burning stratum i, time t	<table><tr><td>Bi,t (tonnes d.m./ha) Ex- ante Project Area</td><td>31.0</td></tr><tr><td>Bi,t (tonnes d.m./ha) Ex- ante Leakage Belt</td><td>31.0</td></tr></table>	Bi,t (tonnes d.m./ha) Ex- ante Project Area	31.0	Bi,t (tonnes d.m./ha) Ex- ante Leakage Belt	31.0	Verified from forest inventory. Monitored at least once every 10 years								
Bi,t (tonnes d.m./ha) Ex- ante Project Area	31.0													
Bi,t (tonnes d.m./ha) Ex- ante Leakage Belt	31.0													
Aboveground	Calculation of baseline emissions	Verified from SOPs												

biomass density	Calculation of project emissions		<i>Monitored at least once every 10 years</i>
Area of sample plots in ha	forest inventory procedures are provided in the SOPs.		<i>Verified from forest inventory. Monitored at least once every 10 years</i>
Carbon stock in all pools in post-natural disturbance q in baseline stratum i	Year	CP,Dist,q,i (t CO ₂ -e)	<i>Monitored at least Prior to each verification event and at least every 5 years</i>
	2017	0	
	2018	0	
	2019	0	
Total area of stratum i	Strata in Project	Ai (ha)	<i>Verified from ARCGIS analysis</i>
	MAS	71,990	
	MWF	32,075	
	Strata in LB	Ai (ha)	
	MAS	71,940	
	MWF	32,075	

Data and Parameters for Monitoring Illegal Degradation.

Parameter	Description	Justification
$A_{DegW,i,t}$	Area potentially impacted by degradation processes in stratum i	Delineated based on survey results indicating general area of project potentially accessed and typical depth of penetration of illegal harvest activities from points of access. Meets methodology requirements.
$C_{DegW,i,t}$	Biomass carbon of trees cut and removed through degradation process from plots measured in stratum i at time t	Estimated from diameter measurements of cut stumps in sample plots
AP_i	Total area of degradation sample plots in stratum i	Calculated as 3% of $A_{DegW,i,t}$. Meets methodology requirements.
$\Delta C_{P,DegW,i,t}$	Net carbon stock changes as a result of degradation in stratum i in the project area at time t	Calculated. Meets methodology requirements.

Data and Parameters for Monitoring Emissions from Biomass Burning

Parameter	Description	Justification
E BiomassBurn,t	Greenhouse emissions due to biomass burning as part of deforestation activities in stratum i in year t	Calculated. Meets methodology requirements.
Aburn,i,t	Area burnt for stratum i at time t	Monitored for each verification event. Meets methodology requirements.
Bi,t	Average aboveground biomass stock before burning stratum i, time t	Conservatively assumed to be the carbon stock in all pools in the baseline case (CBSL,i). Meets methodology requirements.
COMF i	Combustion factor for stratum i; dimensionless	0.45 for primary open tropical forest. Derived from Table 2.6 of IPCC, 2006. Meets methodology requirements.
Gg,i	Emission factor for stratum i for gas g	GCH ₄ = 6.8 g kg ⁻¹ and GN ₂ O = 0.2 g kg ⁻¹ . Derived from Table 2.5 of IPCC, 2006. Meets methodology requirements.
GWPg	Global warming potential for gas g	Default values from IPCC SAR: CH ₄ = 21; N ₂ O = 310). Meets methodology requirements.

Data and Parameters for Monitoring Activity Shifting Leakage.

Parameter	Description	Justification
ΔCP,LB	Net greenhouse gas emissions within the leakage belt in the project case	Calculated. Meets methodology requirements.
ADefLB,i,t	Area of recorded deforestation in the leakage belt at time t	Monitored for each verification event. Meets methodology requirements.
ΔC _{P,Def,i,t}	Net carbon stock change as a result of deforestation in the project case in the project area in stratum i at time t	Calculated. Meets methodology requirements.

Data and Parameters for Monitoring Immigrant Leakage

Parameter	Description	Justification
PROPIIMM	Proportion of area deforested by immigrant agents in the leakage belt and project area	Monitored prior to each verification event and at least every 5 years. Meets methodology requirements.
PROPRES	Proportion of baseline deforestation caused by population that has been resident for ≥5 years	Monitored prior to each verification event and at least every 5 years. Meets methodology requirements.

TOTFOR	Total available national forest area	Monitored prior to each verification event and at least every 5 years. Meets methodology requirements.
PROTFOR	Total area of fully protected forests nationally	Monitored prior to each verification event and at least every 5 years. Meets methodology requirements.
MANFOR	Total area of forests under active management nationally	Monitored prior to each verification event and at least every 5 years. Meets methodology requirements.

APPENDIX 3: RESOLUTION OF FINDINGS

Finding 1 – CL 01

The unique project benefits achieved indicate 550 community members with improved skills and/or knowledge resulting from training provided and 210 female community members who are expected to have improved skills and/or knowledge resulting from training. Clarify and provide supporting documents on these numbers achieved as the numbers planned in the PD are much lower (150 and 60, respectively).

Also number of people for whom health services are expected to improve as a result of project activities is zero for the monitoring period whereas numbers planned to be achieved are indicated in the PD. Clarify on the reasons for not achieving as per the plan.

PP Response:

The PD states a conservative figure and we exceeded our expectations. Evidence is provided for governance training, building the capacity of the WMA, training youth, women rights and leadership forum and implementation and awareness of the RMP (skills and knowledge) (see UCRT data confirmation letter) and signed sheets from Carbon Champions program (training and interactions). Total people accounted for in this evidence is ~1100 people however to be conservative, accounting for any overlap or double counting of attendees we claimed half, 550. The same applies to the female attendees.

https://www.dropbox.com/sh/hb3zfgs6963x82a/AADVLRaTmz94Nif9_g5JlPUoa?dl=0

The health target as set in the PD is for the project lifetime with a target of +7000 people. Health was not a target for this monitoring period. Health services will be implemented once the WMA has revenue post verification.

VVB Response: The justification provided by the PP is acceptable based on the review of the evidences.

Finding 2 – CL 02

As per estimate in PDD the project generates 136,504 tCO₂e annually for the first 10 years of the project. However the monitoring report indicates achieved emission reductions of 150,425 t CO₂e for a 3 year monitoring period. Clarify whether any loss events have occurred to reduce the achieved emission reductions.

PP Response: The estimates included in the PDD represent include rough assumptions around project impacts. In the first 3 years of the project, actual emission reductions achieved were less than those predicted in the PDD (which is okay – issued credits are not based on projections included in the PDD), but nevertheless, net emission reductions were achieved (~50,000 t CO₂e per year), which means that no reversals have taken place (only a negative value would represent a reversal).

VVB Response: the response of the PP is justified, hence accepted

Finding 3 – CAR 01

In the MR Section 1.1.10 on sustainable development only lists the national policies without defining how the project has monitored and achieved compliance with the same during this verification period. Also the MR indicates that the project is aimed at helping to achieve 11 of the Sustainable Development Goals without providing information on how these goals were achieved during this verification period.

PP Response: Section now reflects that this project does not aim to specifically contribute to achieving any nationally stated sustainable development priorities, however, is developed in line with national policies such as The Wildlife Policy (1998) and The National Land Policy (1995). This project does not have any provisions for reporting and monitoring on national policies. The sentence relating to SDGs has been removed from the monitoring report. Please see section 4.4. of PD and the community and biodiversity monitoring plans for monitoring indicators :

https://www.dropbox.com/sh/hb3zfqs6963x82a/AADVLRaTmz94Nif9_g5JlPUoa?dl=0

VVB Response:

The justification provided by the PP is acceptable based on the review of the evidences.

Finding 4 – CAR 02

In the MR Section 1.1.11 the events listed in the implementation schedule is not in line with the schedule in the validated PD.

PP Response: This was changed in the PD during validation and has now been updated in the monitoring report. Makame_Monitoring_Report25June2020

VVB Response:

The submitted MR has been reviewed and as the information addresses the finding it is resolved.

Finding 5 – CAR 03

In the MR Section 1.1.12 the methodology deviations approved by VERRA as per the PD are not listed as being applicable for this monitoring period.

PP Response: Deviations are now listed in the MR.

VVB Response: The submitted MR has been reviewed and as the information addresses the finding it is resolved.

Finding 6 – CAR 04

In the MR Section 1.1.16 the risks to the project are similar as mentioned in the validated PD without providing information on how impacts and risks were assessed during this verification period.

PP Response: Column “Methods used to assess impacts and risks during this verification period” added to section and now includes this information. Risk report updated with information through end of the current monitoring/verification period, including updated financials and most current (through 2018) World Bank governance scores. Note that the VCS AFOLU risk tool evaluates future risk. It is not intended to be an ex post report of risk mitigation activities. The VCS AFOLU risk tool states: “...projects analyzing risk at a subsequent verification event shall assess the potential transient and permanent losses for the **next** 100 years based on the conditions present and available at the time of risk analysis.” Consequently, the risk report is focused on assessing future non-permanence risk on the basis of conditions assessed at the end of the monitoring/verification period, with limited reporting on project activities (including those mitigating risk) that are covered in detail in the monitoring report.

VVB Response:

Finding 7 – IR 01

The informational meeting events with stakeholders as listed in section 2.3.3 of the MR for this verification period is to be provided for review.

PP Response: This information relates to informal meetings with stakeholders is provided in the shared Dropbox file: Implemented Monitoring Plan: Community.

May 2016: Carbon Tanzania representatives were invited to a board meeting of the Makame WMA AA where they introduced the concept of the REDD project. May 2016: The Carbon Tanzania management attended a Kiteto District Council meeting to introduce the concepts and requirements of the REDD project. Evidence provided:

<https://www.dropbox.com/sh/mufc34292mf76dk/AACdZqn0RTdoctZ5ZK1cZLloa?dl=0>

August 2016: Consultative meetings were held with both members of the Makame WMA committee and representatives of the five participating villages to explain the respective responsibilities of each stakeholder in the proposed REDD project. Evidence provided:

<https://www.dropbox.com/sh/mufc34292mf76dk/AACdZqn0RTdoctZ5ZK1cZLloa?dl=0>

May 2017: Meetings with full Makame WMA board (including village representatives) and executives to negotiate the terms of contract which forms the basis of the REDD project activities. Carbon Tanzania then signed this contract with Makame WMA. Contract signed is evidence of meeting.

July / August 2017: Multiple grassroots led training sessions for representatives of both Makame WMA and village communities in the local language (Maa) to sensitize general community members to the aims and requirements of the REDD project (Carbon Champions program). Carbon Champions program: https://www.dropbox.com/sh/pt52snvy52apxk4/AAAadHi1V5JJW1--uMJIW_xta?dl=0

November 2017: Carbon Tanzania held a finance meeting and training with the WMA leadership, which led to the development of the project finance guideline which laid out to all stakeholders the process that informed all project financial interactions.

<https://www.dropbox.com/sh/jhml2a7oyu3s33p/AACKKPk-ZAjUYIDaIT0-37a?dl=0>

August 2018: Bi-annual project updates and grievance meeting with WMA leadership held at the WMA: <https://www.dropbox.com/sh/22d70e57w9i1srm/AABcXWK3dA-9iYRt11BufY22a?dl=0>

March 2019: 6-month workplan meeting and presentation by Honeyguide and Carbon Tanzania with the WMA operational leadership including updates around the increased project activity especially in regard to mobilization and capacity building with the Village Game Scouts:

<https://www.dropbox.com/s/9r201x53vqb4bz5/Makame%20March%202019%20Bi.pdf?dl=0>

VVB Response: The information provided by the PP has been reviewed and the finding is addressed.

Finding 8 – CAR 05

In the MR Section 1.1.25 the information for Continued Consultation and Adaptive Management are similar as mentioned in the validated PD without providing information on implementation during this verification period. Evidences to be provided if applicable.

PP Response: The PD and MR state that Carbon Tanzania along with our partners in the landscape such as Honeyguide and UCRT, plays the role of informing continued review, and advising adjustment of the project activities to better deliver the intended outcomes. Carbon Tanzania and partner organizations regular presence in the village council and WMA meetings ensures that Carbon Tanzania will receive information and feedback about potential issues with project implementation as they arise. I have added these examples as part of the continued dialogue and resulting activities.

Makame Bi-Annual meeting reports

<https://www.dropbox.com/sh/22d70e57w9i1srm/AABcXWK3dA-9iYRt11BufY22a?dl=0>

Evidences of this activity are the continued such as the updating of Makame WMA Business Plan:

https://www.dropbox.com/s/i0rb1iju7idilpm/Makame%20Business%20Plan_CT_17FEB2020.pdf?dl=0

Makame RMP and the awareness training around its importance:

https://www.dropbox.com/s/idexqf3djov12xg/RMP_awareness_training.pdf?dl=0

VVB Response: The information provided by the PP has been reviewed and the finding is addressed.

Finding 9 – CAR 06

In the MR Section 2.1.30 the information for worker trainings are similar as mentioned in the validated PD without providing information on implementation during this verification period. Evidences to be provided if applicable.

PP Response: Section now includes that during this period all worker training and policies which are enshrined in the RMP (a valid legal document), and host country laws were followed, this is a WMA responsibility as any deviation would be illegal. There is no applicable evidence for this in this verification period.

VVB Response: The information in the section on worker training indicates that it is the responsibility of the WMA which follows the RMP. The sections states the policy that “All Makame WMA personnel receive training through the administration and operations program (See RMP) when they are hired, including content related to professional ethics and conduct as part of the institutional culture. Staff evaluations and staff training are part of the RMP (See section 6.1.4. of the RMP).” Hence it is understood that all evidences shall be provided by the WMA.

However, there is a lack of information by the WMA on the number of workers trained and actual implementation during the verification period.

PP Response 2:

Please note evidence report from WMA on some of the training provided to WMA Staff and VGS during this verification period:

<https://www.dropbox.com/s/f2rs0tjalcc7cxh/WMA%20STAFF%20Trainings.pdf?dl=0>

VVB Response: The information provided by the PP has been reviewed and the finding is addressed.

Finding 10 – CAR 07

In the MR Section 2.3.15 the information for Community Employment Opportunities does not provide information on implementation during this verification period. Evidences to be provided if applicable.

PP Response: All employees of the WMA during this verification period such as WMA manager and Village Game Scouts were employed from the five villages that make up the WMA, this is now included in the mentioned section and evidenced here:

https://www.dropbox.com/sh/xpehesae0tds0el/AAAJhcC3GjnWqb_uhAlesRt-a?dl=0

VVB Response: The information provided by the PP has been reviewed and the finding is addressed.

Finding 11 – IR 02

Area impacted by natural disturbance in post-natural disturbance stratum q in stratum i, at

time t is Monitored at each monitoring/verification event through the use of classified satellite imagery. A value of Zero is assigned for this monitoring period. The relevant GIS imagery analysis to be provided to support the same.

PP Response: The imagery analysis for forest cover change (due to both anthropogenic deforestation and natural disturbance) is documented in Annex 2 of the monitoring report, “Accuracy assessment for remote sensing satellite imagery analysis for monitoring forest cover” and classified satellite imagery submitted for verification.

VVB Response:

The following information to be provided for further verification:

- The classified map of 2019
- The percentage cloud cover in the images used for collection of ground verification points?
- The information of georeferenced ground verification points?
- What was the settings/method used for creating random points in ArcGIS?

PP Response 2:

- See “MakameRRL_NF_2019621.shp”
- The cloud cover was low (< 10%) and any points that fall in cloud cover are replaced
- See the “Makame_AA_points_RRL2019.shp”
- Once areas of high-resolution imagery are identified this is used as a boundary to limit the extent for use in the create random points tool. This tool creates a specified number of random point features. Random points can be generated in an extent window, inside polygon features, on point features, or along line features. Points were generated for both Forest and Non-forest classes.

The documents referenced in this response are available on Dropbox in the folder titled “20. Implemented monitoring plan (verification)” > “GIS” > “Makame_AuditResponse720” at: https://www.dropbox.com/sh/jy02tjgc53188as/AACcqh0m_J7tdtjgn-hUvFx-a?dl=0

VVB Response: The information provided by the PP has been reviewed and the finding is addressed.

Finding 12 – IR 03

Area potentially impacted by degradation processes in stratum I is monitored each time the PRA indicates a potential for degradation. PRA is conducted every < 2 years and as per MR zero value is assigned for is assigned for this monitoring period. The supporting document for this estimation to be provided.

PP Response: Routine PRAs, conducted as part of and concurrent to community meetings with community members, indicate that the potential illegal logging/ degradation is below the

threshold to warrant further investigation of degradation from illegal logging in the project area. PRA protocols and tabulated results are provided.

PRA Protocols

https://www.dropbox.com/s/b9bcv4rcubz187y/CT_PRA_Protocols_Makame2016.pdf?dl=0

PRA Tabulated Results

https://www.dropbox.com/s/ts59bjnikkn9bk7/Makame_PRAresults_2016-2019.pdf?dl=0

VVB Response:

The protocol for PRA infers that interviews are conducted with the WMA Leadership in addition to the communities. Clarify if the numbers provided in the PRA log sheet includes this aspect.

PP Response 2:

The protocol states that the PRA includes as many community leaders as possible. Data provided in the PRA log sheet includes these leaders. During this verification period leadership consulted during the PRA include; WMA Accountant, WMA Secretary, WMA Chairperson, WMA Security/Patrol Officer
WMA Treasurer, WMA Operation Manager, Makame Village Chairperson, Ndedo Village Chairperson,
Ndedo Village Executive Officer, Ngabolo Chairperson, Irikishibor Chairperson and four members of the WMA Board. Leadership data is not segregated as response anonymity is key to the PRA being transparent and community members providing honest feedback, likewise the answers of all community members are thus given equal weight to those in leadership positions that are potentially more directly involved in the project.

VVB Response: The information and the justification provided by the PP has been reviewed and the finding is addressed.

Finding 13 – IR 04

Area potentially impacted by degradation processes in stratum I is monitored each time the PRA indicates a potential for degradation. PRA is conducted every < 2 years and as per MR zero value is assigned for is assigned for this monitoring period. The supporting document for this estimation to be provided.

PP Response: Routine PRAs, conducted as part of and concurrent to community meetings with community members, indicate that the potential illegal logging/ degradation is below the threshold to warrant further investigation of degradation from illegal logging in the project area. PRA protocols and tabulated results are provided.

PRA Protocols

https://www.dropbox.com/s/b9bcv4rcubz187y/CT_PRA_Protocols_Makame2016.pdf?dl=0

PRA Tabulated Results

https://www.dropbox.com/s/ts59bjnikkn9bk7/Makame_PRAresults_2016-2019.pdf?dl=0

VVB Response: The information provided by the PP has been reviewed and the finding is

addressed.

Finding 14 – CAR 08

The MR mentions that Forest loss due to leakage is calculated and documented and Over the 3-year monitoring period the project area resulted in 233,060 tons t CO₂e removals with a buffer pool contribution of 44,281 t CO₂e and a total emission reduction of 150,425 t CO₂e after accounting for leakage and uncertainty (22,291 t CO₂e).

However, the information in the section on Estimation of ex-post net carbon stock changes and greenhouse gas emissions in the Monitoring report is similar as mentioned in the validated PD and does not provide information on monitored values during the verification period.

PP Response: Leakage calculations are full documented in MR section 2.1.7 (inside leakage belt – Table 3.15, outside leakage belt Table 3.21, sum total in Table 3.23). Leakage inside leakage belt is zero, because monitored deforestation within the leakage belt did not exceed the baseline deforestation within the leakage belt. Leakage outside the leakage belt totalled 22,291 t CO₂e. Section 2.1.8 (Table 3.26) documents all net emission reduction calculations, including leakage (22,291 t CO₂e) and risk buffer pool contribution (44,281 t CO₂e).

VVB Response:

Tables 3.15, 3.21 and 3.23 in the MR indicates leakage monitoring for the years 2017, 2018 and 2019. As the monitoring period is from 27 April 2016 – 26 April 2019, clarify on the consistency and periodicity of the leakage monitoring.

The estimated leakage for the years 2017, 2018 and 2019 as per the PDD is 1017, 8114 and 21,438 which is higher than the actual leakage of 0, 5438 and 16853 as per the MR. Clarify on the inconsistencies and provide justification for the lower leakage emissions achieved.

PP Response 2: The estimates included in the PD are based on rough assumptions around project impacts. The leakage values for the ex-ante scenario in the PD are based on estimated projections of emissions reductions. In the monitoring report we are reporting the actual measured emissions reductions values for the first three years of the project. The gross actual emissions reductions were lower than the projected values, therefore the leakage values presented in the monitoring report are also lower than those leakage estimates reported in the PD.

VVB Response: The information provided by the PP has been reviewed and the finding is addressed.

Finding 15 CAR 09

The community benefits section in the MR provides information similar to the validated PD without indicating the achieved benefits for the current verification period, especially the quantification of the exceptional community benefits, long term and short term benefits, net

impacts on community and women and benefit sharing mechanisms has not been provided.

PP Response: The sentence in the community benefits section of the MR has been updated to refer to 3.1.7. where the community benefits are tabulated. This includes work on education, governance and gender as well structural improvements to the WMA such as radios and solar power. The updated RMP and the participatory development of this guiding document ensures long term availability to grazing, a critical resource for Masai pastoralists. All evidence of training and inputs and provided:
https://www.dropbox.com/sh/hb3zfgs6963x82a/AADVLRaTmz94Nif9_g5JIPUoa?dl=0

VVB Response: section 3.1.7 of the MR refers to leakage estimation whereas table 4.1.7 refers to community monitoring. Clarify on the inconsistency.

Also the provided information does not classify the benefits achieved as long term and short term in line with VCS requirements.

PP Response 2:

VVB is correct that the reference to 3.1.7 was incorrect and was meant to be 4.1.7 (Community Monitoring). Furthermore, the MR has been adjusted to indicate the achieved benefits for the current verification period, especially in regard to exceptional community benefits (Optional Criterion: Exceptional Community Benefits), long term and short term benefits (4.1.9), net impacts on community and women(4.1.10), and benefit sharing mechanisms (4.1.11).

VVB Response: The information provided by the PP has been reviewed and the finding is addressed.

Finding 16 CAR 10

In the MR Sections pertaining to the monitoring of HCVs provides information similar to the validated PDD without indicating the monitoring results during this verification period. Evidences to be provided if applicable.

PP Response: The main goal of this project is to assist the community in the implementation of the resource management plan which formalises their traditional land management techniques and customs, protecting the HCVs identified in section 3.1.7 Community Monitoring Plan. See evidence of the development and completed RMP for Makame WMA.
<https://www.dropbox.com/sh/eign1j7ziyoaaje/AABd0vEaMLsGBvlnosU-5pTla?dl=0>

VVB Response:

Section 3.1.7 of the MR refers to leakage estimation whereas table 4.1.7 refers to community monitoring. Clarify on the inconsistency.

Also Table 4.1.7 lists two HCV related monitoring activities which are planned based on the RMP in 2017 - Allocate and maintain community grazing area and Non-timber (including carbon, water) rights. The evidence to support the implementation of the same (example-

incident reports) for this verification period is not provided.
PP Response 2: VVB is correct that the reference to 3.1.7 was incorrect and was meant to be 4.1.7 (Community Monitoring) Please see the following examples as evidence to support the implementation of the RMP (example-incident reports) for this verification period provided below; Incident report (elephant carcass) from June 2016 https://www.dropbox.com/s/0ogihrnjr39toxq/Elephant%20Carcass%20Incident%202016.pdf?dl=0 Incidents reports first half of 2017 https://www.dropbox.com/s/b3ah3wvuzmst9xk/Incident%20Report%202017%20MAKAME.pdf?dl=0 Incidents reports 2017 Summary Table https://www.dropbox.com/s/0j4n2tcfipwrw3f/WMA%20Incidents%202017.pdf?dl=0 Translated English Incidents Reports for May-July 2018 https://www.dropbox.com/s/vgvnj88u1809cb1/MAKAME%20Incident%20Reports%20May-July%202018%20%28ENGLISH%29.pdf?dl=0 Letter from district (2020) to the WMA congratulating them for past protection of natural resources by WMA anti-poaching team and VGS, a direct result of implementing RMP https://www.dropbox.com/s/rg51wxbnmkc7win/Congrats%20from%20District%20Antipoaching.pdf?dl=0
VVB Response: The information provided by the PP has been reviewed and the finding is addressed.

Finding 17 CAR 11 The risk assessment report contains information similar to the validated risk report and does not provide updated information as relevant and applicable for current monitoring period.
PP Response: The risk report for verification is the same as for validation, and has (see confirmation email, VERRA, dated 24th June) been revised to specify the monitoring period. This precedent on combined validation/verifications has been established on many other REDD projects under VCS. Note that the risk score is only applied at verification.
VVB Response: EPIC has submitted clarification request to VERRA on the same as there is no explicit guidance provided in the VCS requirements. Upon clarification from VERRA, the finding shall be addressed as appropriate.
PP Response 2: Risk report updated with information through end of the current monitoring/verification period, including updated financials and most current (through 2018) World Bank governance scores.
VVB Response: The information and document provided by the PP has been reviewed and the finding is addressed.

Finding 18 FAR 01

PP to address the issue of any on-going USAID funds being utilised for the actual REDD project implementation and its impact on the financial aspects / additionality of the risk assessment during this verification.

PP Response: Attached letter confirms that there are no ongoing funds to this REDD project or Makame WMA.



NTRI Program Office
Plot # 16002 Mawalla Street
P.O. Box 13285 (Meru branch)
Arusha, Tanzania

Tel: (255) 732 979683
nature.org

14 August 2019

To whom it may concern:

I am writing to verify that USAID support to Carbon Tanzania through the Endangered Ecosystems Northern Tanzania project (EENT) was terminated as of 31 March 2018. USAID mandated the early closure of this and all other subawards and organizational contracts in association with a partial termination of the EENT project.

On 8 December 2018, USAID issued a letter to The Nature Conservancy instructing that:

"The Nature Conservancy shall ...not initiate new activities or incur new obligations for any activities being carried out by the following sub-grantees as of the date of this letter and terminate the sub-grants/sub-awards not later than the date specified below:

Sub-awardee	Strategy	Date of Termination
Carbon Tanzania	2 and 3	3/31/2018

As a result, Carbon Tanzania was required to terminate several activities in the Makame Wildlife Management Area that were initially planned to take place under EENT after 31 March 2018. A similar termination was mandated for all organizations receiving funding from The Nature Conservancy as a subaward or contract under EENT. Termination of Carbon Tanzania's contract was not associated with any fault on the part of Carbon Tanzania.

Should you have any further questions, feel free to contact me.

Best regards,

Brenda Gail Bergman
Chief of Party
Endangered Ecosystems Northern Tanzania
The Nature Conservancy

VVB Response:

The evidence submitted does not address the finding raised. The attached letter indicates that USAID funds were terminated on 31st March 2018. Hence as the projects current verification period is 27 April 2016 – 26 April 2019, clarify on the impact of USAID funds for almost 2 years (up to March 2018) during this verification period.

PP Response 2: We would like to clarify Finding 18, FAR 01, specifically to note that the receipt of USAID funds in the future is relevant only to the financial viability, to be assessed in ongoing risk assessments. The current (updated) risk assessment, under financial viability, provides a complete accounting of revenues received through the end of the current monitoring period.

VVB Response: The information and document provided by the PP has been reviewed and the finding is addressed.

APPENDIX 4: LIST OF DOCUMENTS REVIEWED

S.No.	Document details
1	VCS standard version 4.0
2	CCB Standards third edition (ver 3.1)
3	AFOLU Non-Permanence Risk Tool Version 3.4
4	Registered VCS-CCB PD
5	VCS-CCB Validation report
6	Project Implementation Report Ver 3.0
7	VM0007: REDD Methodology Modules (REDD-MF), Version 1.5" and its associated modules
8	VCS Non- Permanence Risk, the VT0001 "Tool for the demonstration and assessment of additionality in VCS Agriculture, Forestry and Other Land Use (AFOLU) Project Activities" v3
9	VCS- CCB project document version 03.1 dated 18 th September 2020
10	GIS Maps of Project Area, Leakage area and Reference area
11	Makame WMA business plan
12	Makame REDD VER calculation sheet
13	Resource Management zone plan (2017 -2022)
14	Memorandum of understanding between Carbon Tanzania and partners signed with Kiteto District government on the 27th April 2016
15	Evidences for FPIC process – minutes of meeting at village level.
16	Stakeholder consultation documents - photographs
17	Company policy documents
18	Employee contract documents
19	Letter from the Chief of Party for the USAID EENT project
20	Field assessment sheet of the biomass survey for the PSPs
21	Declaration from carbon Tanzania on status of funding from USAID
22	Declaration from carbon Tanzania on double counting and participation in other GHG mechanisms.
23	Declaration on historical conflicts in the project activity zone