CCB VERIFICATION REPORT/ VERIFICATION STATEMENT

WILDLIFE WORKS KASIGAU CORRIDOR REDD PROJECT PHASE I – THE RUKINGA SANCTUARY

Verification Period:
01 January, 2011 to 31 December, 2011

REPORT NO. 2012-9680

REVISION NO. 01

CCB PROJECT VERIFICATION REPORT

Date of first issue: 29 November 2012	Project No.: PRJC-382152-2012-CCS-USA
Approved by: Weidong Yang VCS approver	Organizational unit: Sustainability and Innovation Climate Change Services USA
Client: Wildlife Works Carbon	Client ref.: Jeremy Freund

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DNV Climate Change Services SA (DNV) has performed a verification of the "The Kasigau Corridor REDD Project Phase I – The Rukinga Sanctuary" (hereafter called "the project") in Kenya on the basis of criteria defined by the Climate Biodiversity and Community Alliance (CCBA) Second Edition and approved Verified Carbon Standard (VCS) methodology, "VM0009 – Methodology for Avoided Mosaic Deforestation of Tropical Forests Version 1.0," as well as criteria for consistent project operations, monitoring and reporting. This verification report summarizes the findings of the CCBA verification.

The verification consisted of the following four phases: a) desk review of the Project Implementation Report (PIR), monitoring plan and supporting documents,
b) site visit,
c) follow-up interviews and the issuance of verification findings, and
d) the resolution of outstanding issues and the issuance of the verification report and verification statement.
In our opinion, the GHG emission reductions reported for the project in the Project Implementation Report dated 23 April 2012 (version 2.1) are fairly stated. The GHG emission reductions were calculated correctly on the basis of the approved VCS methodology, VM0009 (Version 1.0), the CCBS Monitoring Plan dated 19 May 2011 and the CCBA Project Document dated 27 April, 2011, and meets all relevant CCBA requirements.

DNV is able to certify with a reasonable level of assurance that the emission reductions from the "Kasigau Corridor REDD Project Phase I – The Rukinga Sanctuary" during the period 01 January, 2011 to 31 December, 2011 amount to 250 465 tonnes CO2 equivalent. DNV Climate Change Services AS verified that the non-permanence risk rating of the proposed project activity for this verification is 15% which is to be applied to the change in carbon stocks at this verification (i.e. equal to 37 570 tCO2e).

Report No.:	Date of this revision:	Rev. No.
2012-9680	29 Nov 2012	No. 1

Report title:
CCB Verification Report – Wildlife Works Kasigau Corridor REDD Project Phase I – The Rukinga Sanctuary

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Abbreviations

AFOLU Guidelines	Agriculture, Forestry and Other Land Uses section of Guidelines for National Greenhouse Gas Inventories 2006
CAR	Corrective Action Request
CBO	Community Based Organization
CCBA	Climate, Community, and Biodiversity Alliance
CCB	Climate, Community, and Biodiversity
CL	Clarification Request
CO_2e	Carbon Dioxide Equivalent
DBH	Diameter at Breast Height
DNV	Det Norske Veritas (U.S.A.) Inc.
FAR	Forward Action Request
GHG	Greenhouse Gas(es)
GWP	Global Warming Potential
HCV	High Conservation Value
MED	Methodology Element Documentation
MHCA	Marungu Hills Conservancy Association
NER	Net Emission Reduction
PDD	Project Design Document
PIR	Project Implementation Report
REDD	Reduced Emissions from Deforestation and Degradation
VB	Verification Body
VCS	Verified Carbon Standard
VCSA	VCS Association
VCU	Voluntary Carbon Unit
WBCSD	World Business Council for Sustainable Development
WRI	World Resources Institute

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1 INTRODUCTION

Wildlife Works Carbon LLC has commissioned DNV Climate Change Services SA (DNV) to verify the "Kasigau Corridor REDD Phase I – The Rukinga Sanctuary" project in Kenya based on the Project Implementation Report (PIR) Version 2.1, 23 April, 2012 and Monitoring Plan Version 3.0, 19 May, 2011. This report provides a description of the steps involved in conducting the verification and the findings of the verification based on the Climate, Community and Biodiversity Project Design Standards Second Edition, December, 2008 (CCB Standard), as well as criteria for consistent project operations, monitoring and reporting.

1.1 Objective

Verification is the periodic independent review and *ex-post* determination by an accredited verification body (VB) of the monitored reductions in greenhouse gas (GHG) emissions and benefits received to the community and biodiversity of the project area that have occurred as a result of the registered CCB project activities during a defined verification period.

A verification statement is the written assurance by a VB that, during a specific period in time, a project activity achieved the emission reductions and benefits to the community and biodiversity as verified.

The objective of this verification was to verify and provide a verification statement of emission reductions and benefits to the community and biodiversity reported for the "Kasigau Corridor REDD Project Phase I – The Rukinga Sanctuary" (the project) for the period 01 January, 2011 to 31 December, 2011.

1.2 Scope and Criteria

The scope of the verification is:

- To verify that actual monitoring systems and procedures are in compliance with the monitoring systems and procedures described in the monitoring plan.
- To evaluate the GHG emission reduction data and express a conclusion with a reasonable level of assurance about whether the reported GHG emission reduction data is free from material misstatement.
- To verify that reported GHG emission data is sufficiently supported by evidence.
- To verify that the project activities have and are being implemented as scheduled.
- To verify that benefits to the community and biodiversity are being achieved according to the CCB criteria within the verification period.

In particular, the project was assessed against the CCB Standard to determine which of the fourteen required, and three optional, CCB standards criteria the project satisfies. As specified by CCBA, an "approved" project is one that meets all 14 of the required CCB standards criteria.

1.3 CCB Project Description

Title of project activity:	*Kasigau Corridor REDD Project Phase I – The Rukinga.Sanctuary*
Monitoring methodology for baseline and project activities	*WWC Project Implementation Report & Monitoring Plan & VM0009 (Version 1.0).*
Location of the project activity:	*Kasigau Corridor, Kenya.*
Project's crediting period:	*01 January, 2010 to 31 December, 2039.*
Period verified in this verification:	*01 January, 2011 to 31 December, 2011*.

The "Kasigau Corridor REDD Project Phase I – The Rukinga Sanctuary" has been developed by Wildlife Works Carbon LLC, a project proponent based in California, USA. The project is implemented on behalf of the indigenous Community Group of landowners, who are the owners of the carbon credits derived from a Reduced Emissions from Deforestation and Degradation (REDD) project in SE Kenya in an area of wilderness known as the Kasigau Corridor. The project also includes Marungu Hills Bio-diversity Conservation and Eco-tourism Project, and a Wildlife Corridor adjacent to the Nairobi-Mombasa Highway.

The project proponent and the project developer is Wildlife Works Carbon LLC. DNV, through its review of pertinent documentation and onsite inspection, can confirm that Wildlife Works Carbon LLC holds all the pertinent ownership and user-rights for the project. This also includes the rights to all and any reductions generated by the project during the Project Crediting Period. The legal status and property ownership was confirmed by DNV by reviewing two types of documents provided by Wildlife Works, the leasehold titles of each of the areas within the project area /6/, as well as the Carbon Rights Agreement between Wildlife Works Inc. and each of the other stakeholders involved. In addition, DNV can also confirm that the project is not included in any other emission trading program and is not subject to binding GHG emissions limits.

The project is 30 166 hectares with an average canopy cover of 39.5%, and with mature tree heights ranging from 5-10 meters. The main project activity is to prevent deforestation caused by subsistence farming activities. The objective of the project activity is to prevent the conversion of forest to cropland for annual crops, typically maize, that ultimately results in net GHG emissions into the atmosphere.

The project start date is 1 January, 2010, which is the date Wildlife Works assumed financial responsibility for the project area and began specific GHG mitigation activities within the project area.

1.4 Level of Assurance

This verification report expresses a conclusion with a reasonable level of assurance about whether the reported GHG emission reduction data and project activities are free from material misstatement.

2 METHODOLOGY

The verification of the benefits of the project activities assessed for all factors and issues that constitute the basis for emission reductions from the project include:

- The emission reduction calculations and the relevant data records.
- The calibration of the Cumulative Deforestation Model and records for the standard operating procedures for measurement.
- The management systems to support the project operation and monitoring.
- Assessment of the benefits of the project activities according to the CCB standard.
- Assessment of the monitoring activities of the project activities according to the monitoring plan.

Table 1 shows the verification team and the roles each of them had in the verification process.

Table 1. Verification Team

Role	Last Name	First Name	Administrative	Desk review	Site visit / Interviews	Reporting	Technical review	Expert input
Project Manager / CCB/VCS Verifier	Reed	Pablo	✓	✓	✓	✓		
CCB/VCS Verifier	Espejo	Andres		✓	✓	✓		
Technical reviewer	Aalders	Edwin					✓	✓

Duration of Verification

Preparations:	*23 March, 2012 to 05 May, 2012*
On-site verification:	*06 May, 2012 to 15 May, 2012*
Reporting, calculation checks and QA/QC*:*	*15 May, 2012 to 29 Nov, 2012*

2.1 Review of Documentation

The basis for the verification has been the Project Implementation Report (Version 2.1, 23 April, 2012 /2/ and the CCBA Project Monitoring Plan (Version 3.0 of 19 May, 2011) /3/, as well as the CCB project design document (CCB PDD), dated 27 April, 2011 /1/, and the approved VCS methodology applied by the project, VM0009, Version 1.0 /27/.The project proponent has also provided the verification team with spreadsheets of all data necessary for verification of the emission reductions and project activities /17/18/19/20/.

Other documents provided by the Project Participants that relate directly to the project activities that benefit the climate, community, and biodiversity have been used as direct sources of evidence for the periodic verification conclusions as well, and are usually further checked through interviews with key personnel. The following is the complete list of documentation that was assessed during the verification:

Documents Provided That Relate Directly to the Project

/1/ Wildlife Works Carbon LLC, *CCB PD for Kasigau Corridor REDD Project Phase I – The Rukinga Sanctuary*, Version 9 with supporting document, 27 April, 2011 and previous versions.

/2/ Wildlife Works Carbon LLC, CCB PIR for "Kasigau Corridor REDD Project Phase I – The Rukinga Sanctuary" – Project Implementation Report – Version 2.1, 23 April, 2012.

/3/ Wildlife Works Carbon LLC, CCB Monitoring Plan for "Kasigau Corridor REDD Project Phase I – The Rukinga Sanctuary" Version 3.0, 19 May, 2011.

/4/ Wildlife Works Carbon LLC, *VCS PD for* "Kasigau Corridor REDD Project Phase I – The Rukinga Sanctuary," 12 April, 2011.

/5/ "Carbon Rights Agreement" between Wildlife Works Carbon LLC and each of the relevant stakeholders/landowners.

/6/ Leasehold titles and ownership structures to each of the lands included in the project.

/7/ Wildlife Works Carbon LLC, "Social and Biodiversity Impact Assessment Monitoring Plan." May 2012.

/8/ Wildlife Works Carbon LLC, "Baseline Household Level Questionnaire." May 2012.

/9/ Wildlife Works Carbon LLC, "Quarterly Statement of Carbon Credit Sales for

Kasigau Corridor." March 2012.

/10/ Wildlife Works Carbon LLC, "Wildlife Works Carbon Trust Standard Operating Procedures (Version 1)" May 2012.

11/ -Jeremy T. Freund: VCS Monitoring Report (MR) for project activity "The Kasigau Corridor REDD Project Phase I – Rukinga Sanctuary" in Kenya, version 01 dated 9 March 2012 reviewed during the desk review and version 04.10 dated 27 October 2012 verified by DNV.

12/ Wildlife Works Carbon LLC: PD for project activity "The Kasigau Corridor REDD Project Phase I – Rukinga Sanctuary" in Kenya, version 09 dated 31 January 2011

Including additional VCS Project document dated 25 January 2011

/13/ Jeremy T. Freund: *Non-permanence risk report: VCS version 3*, version 1, 0 May 2012

/14/ Wildlife Works Carbon LLC: *Standard Operating Procedures*:

- Biomass Plot Sampling, Version 2.4, 18 January 2012
- Soil Sampling, Version 1.0, 24 may 2011
- Leakage Plot Sampling, Version 1.0, 1 January 2011

/15/ Wildlife Works Carbon LLC: *Forest inventory field data sheets filled during the forest inventory, year 2011*

- Carbon stocks monitoring: Plots MG09, MG14, MA26, MA17, SA13R, SA14, MA34, MA12
- Leakage monitoring: L22, L23, L12

/16/ Crop Nutrition Laboratory Services: *Soil analysis of bulk density and fraction of carbon including the coordinates of each sampling point:*

- Farms Bordering the project area, 1 November 2010
- Analysis of Taita and Kambanga, 28 February 2011
- Analysis of Choke and Kutima, 21 January 2011

/17/ Wildlife Works Carbon LLC: *Spread sheet with the forest inventory and aboveground and below-ground carbon stocks calculation in the monitoring period 2 – M_2 for all ranches and the consolidated (PhaseII_ PlotLevel_Strata2_v3.xlsx),* May 2012

/18/ Wildlife Works Carbon LLC: *Spread sheets with leakage model 2 – M_2 (*Leakage_Model_Expanded_fixed_PhaseI.xls*),* May 2012

/19/ Wildlife Works Carbon LLC: *Spread sheets with calculation of soil carbon loss and estimation of the maximum proportion of soil carbon lost over time (*Kasigau

Corridor Phase I 1m Soil Analysis.xlsx*)*, May 2012

/20/ Wildlife Works Carbon LLC: *Spreadsheets with carbon model in the monitoring period 2 – M_2 (Phase I NERs v9 m=2.xlsx)*, May 2012

/21/ Wildlife Works Carbon LLC: Allometric equations for the estimation of aboveground biomass from out from dendrometric parameters (*AllometricFormulasPower.xlsx)*, 2010

/22/ Wildlife Works Carbon LLC: *Geographical dataset with delineation of project boundaries and strata for each ranch that is part of the project area*, 2011

/23/ Wildlife Works Carbon LLC: Geographical dataset with *location of permanent sample plots for each ranch that is part of the project area*, 2011

/24/ Wildlife Works Carbon LLC: *Quality Control Procedure*, Version 1.0, 10 April 2011

/25/ Wildlife Works Carbon LLC: *Quality Control (QC) report and excel spreadsheet with results (m=2 comparison.xlsx)*, 10 May 2012

Background documents related to the design and/or methodologies employed in the design or other reference documents are shown below.

/26/ Climate, Community, and Biodiversity (CCB) *Project Design Standards Second Edition* – December, 2008.

/27/ Wildlife Works Carbon LLC: *Approved VCS Methodology* VM0009 'Methodology for Avoided Mosaic Deforestation of Tropical Forests'', Version 1.0

/28/ VCSA: VCS *standards: VCS Version 3.2*, 1 February 2012

/29/ VCSA: *AFOLU Non-Permanence Risk tool: VCS Version 3.1*, 1 February 2012

/30/ VCSA: *Program Definitions: VCS Version 3.3*, 1 May 2012

/31/ VCSA: *AFOLU requirements: VCS Version 3.2*, 1 February 2012

/32/ VCSA: *AFOLU requirements: VCS Monitoring Report Template 3.0*, 1 February 2012

/33/ ISO 14064-3:2006: *Greenhouse gases — Part 3: Specification with guidance for the validation and verification of greenhouse gas assertions*, First edition, 1 March 2006

/34/ ISO 14065:2007: *Greenhouse gases — Requirements for greenhouse gas validation and verification bodies for use in accreditation or other forms of recognitions*, First edition, 15 April 2007

/35/ DNV Climate Change Services: VCS validation report – The Kasigau Corridor REDD Project Phase I - The Rukinga Sanctuary , Report Nº 2011-9202 Revision 01, 9 May 2011

/36/ DNV Climate Change Services: VCS verification report – The Kasigau Corridor REDD Project Phase I - The Rukinga Sanctuary , Verification period 1 January 2010 to 31 December 2010, Report Nº 2011-9209 Revision 01, 10 May 2011

/37/ Earth Resources Observation & Science Center (EROS): Landsat ETM+ image:
-ID: LE71670622012014ASN00, 14 January 2012
-(To be added),

/38/ UN-REDD programme: http://www.un-redd.org/

/39/ Forest Carbon Partnership Facility: http://www.forestcarbonpartnership.org/fcp/

/40/ UNFCCC: CDM projects database showing registered projects and projects under validation, accessed on 26 July 2011
http://cdm.unfccc.int/Projects/projsearch.html
http://cdm.unfccc.int/Projects/Validation/index.html

/41/ ESRI : Change matters – On-line visor showing NDVI change between 1975 and 2000,
http://changematters.esri.com/compare

/42/ IPCC, 2003: *Good Practice Guidance for Land Use, Land-Use Change and Forestry*, prepared by the National Greenhouse Gas Inventories Programme, Jim Penman, Michael Gytarsky, Taka
Hiraishi, Thelma Krug, Dina Kruger, Riitta Pipatti, Leandro Buendia, Kyoko Miwa, Todd Ngara
(eds). Published: IGES, Japan. URL:
http://www.ipcc-nggip.iges.or.jp/public/gpglulucf/gpglulucf.html

/43/ Crop Nutrition Laboratory Services: Website indicating the specifications of the laboratory in charge of the soil analysis,
http://www.cropnuts.com/laboratory.html

/44/ DNV Climate Change Services: VCS verification report – The Kasigau Corridor REDD Project Phase I - The Rukinga Sanctuary , Verification period 2 January 2010 to 31 December 2011, Report Nº 2012-9328

2.2 Site Visit

During the site visit of 06 May, 2012 – 15 March, 2012, the personnel and project stakeholders interviewed are listed in Table 2. Table 3 shows the topics that were discussed during the visit.

Table 2. Participants at Project Site (Kasigau Corridor, The Community Ranches)

/45/	Rob Dodson (General Manager)	Wildlife Works EPZ, Ltd.	8-11 May 2012
/46/	Jeremy Freund (VP, Carbon Development)	Wildlife Works Carbon LLC	8-11 May 2012
/47/	**Forest Inventory team:** Mwololo Muasa (Team leader 1) Joel Mwandiga (Team Leader 2) Mathias Kakoi Kitiro	Wildlife Works EPZ, Ltd.	8-11 May 2012

	Tender Tall		
	Cyprian Mwakasi		
	Solomon Makau		
/48/	Defence Mdamu (Data entry responsible)	Wildlife Works EPZ, Ltd.	8-11 May 2012
/49/	Muange Githuru (Biodiversity and Social Monitoring Specialist)	Wildlife Works Carbon LLC	8 May 2012
/50/	Lenjo Laurian (Community Relations, Office Manager)	Wildlife Works Sanctuary, Ltd.	8-11 May 2012
/51/	Joseph Mwanganda (Greenhouse, Nurseries and Jojoba Project Manager)	Wildlife Works Sanctuary, Ltd.	8 May 2012
/52/	Jamie Hendriksen (Carbon Operations Manager)	Wildlife Works Sanctuary, Ltd.	8 May 2012
/53/	**Shareholders**		10-11 May 2012
	Donald Mombu	Mgeno Ranch	
	Masai Kamando	Kasigau Ranch	
	Odilia Mwazaule	-	
	Leonard Ikuyu	Wangala Ranch	
	Christen Wasai	-	
	Alfonce Mwaghunda	-	
	Anderson Mombo	Kabangana Ranch	
	Bertlard Mwadime	-	
	Edwo Chege	Dawida Ranch	
	H Njai Mwangari	Taita Ranch	
	Elijah Mwakio	Dawida Ranch	
		Taita Ranch	
		-	
		Rukinga Ranch	
		Ndara Ranch	
		Kasigau Ranch	
		Kushumbu Ranch	
		-	
		Sagala Ranch	
		Choke Ranch	
	Dominy Lenjo	Kutima Ranch	
		Marungu Hills Cons.	
	Rensondio	Ass.	
	Florence Mavua	Maungu Ranch	
	S. Mwammga	-	
	Alphonce Mwandoma	-	
	David Soma	-	
	James Mgoda	Rukinga Ranch	

	Ronal Mwanyama	-	
	Raymond Mwangola	-	
	Saul Mwangola	-	
	Donald Konde	-	
	ET Mwanmuksa		
	Jones M Mlolwa		
	Dawbin Marami		
	Reuben Mwaluma		
	Dalmas Moka		
	Geofrey Mugi		
	Clement Mwawuda		
	Venant Ludidi		
	Charles Musang"ond		
/54/	Justin Musanjense (Mold Range Officer)	Mold range	11 May 2012
/55/	Wilson Korir (Tsavo Conservation Area)	Kenya Wildlife Service	10 May 2012
/56/	Mama Merci (Leader of Community Based Women's Organization)	Community Based Women's Organization	11 May 2012
/57/	Daniel (School Principal)	School	11 May 2012
/58/	Scola	Clothes Factory Administrator	8-11 May 2012
/59/	Perpetual	School Bursaries Management	8-11 May 2012
/60/	Daniel (Textile quality auditor)	Puma	8 May 2012

Table 3 Interview Topics

Interviewed Organization	Interview Topics
Wildlife Works Carbon LLC	✓ Emission reduction estimates. ✓ Monitoring plan. ✓ Baseline determination. ✓ Buffer determination. ✓ Leakage rates. ✓ Project Implementation Plan. ✓ Disbursement structure and plan. ✓ Environmental monitoring and impacts. ✓ Biodiversity monitoring and impacts. ✓ Community outreach methods.

Interviewed Organization	Interview Topics
Marungu Hills Conservancy Association, local school, local women's group and other individual village unit authorities.	✓ Disbursement methods of carbon revenues to affected communities. ✓ Management structure. ✓ History of organization. ✓ Affiliation with Wildlife Works. ✓ Concerns about potential negative impacts. ✓ Purpose and expected benefits. ✓ Method for prioritizing community projects. ✓ Growth plans for respective organizations.
Ranch Directors of the lands included in the project.	✓ Understanding of carbon easement. ✓ Financial records. ✓ Grievance procedure. ✓ Inclusion in Adaptive management Strategy of the Project. ✓ Future plan for ranch land. ✓ Free, prior, and informed consent. ✓ Disbursement plans to shareholders.

During the site visit, the following tasks were completed:
1) the data presented in the monitoring plan and Project Implementation Report (PIR) were assessed by reviewing the additional project documentation and records,
2) interviews were held with personnel on-site,
3) observation of established monitoring and reporting practices was conducted by assessing the implementation of the stratification and sampling procedures and benefits of the project activities to the affected communities and stakeholders.

This enabled the verification team to assess the accuracy and completeness of the reported monitoring results and to verify the correct implementation of project activities.

2.3 Reporting of Findings

A corrective action request (CAR) is issued where:

- Non-conformities with the monitoring plan or methodology are found in monitoring and reporting, or if the evidence provided to prove conformity is insufficient.
- Mistakes have been made in applying assumptions, data or calculations of emission reductions that will impair the estimate of emission reductions.
- Issues identified in a forward action request (FAR) during validation have not been resolved by the project participants during verification.

A clarification request (CL) is issued if information is insufficient or not clear enough to determine whether the applicable CCBA requirements have been met.

A FAR is issued for actions if the monitoring and reporting require attention and/or adjustment for the next verification period.

Two CARs, three CLs, and two FAR's were identified. All outstanding issues have been closed, with acceptable corrections implemented by the project proponent.

3 VERIFICATION FINDINGS

This section summarizes the findings from the verification of the emission reductions reported for the project for the period 01 January, 2011 to 31 December, 2011.

3.1 Remaining Issues, Including any Material Discrepancy, from Previous Validation or Verification

This is the second periodic verification. There were no remaining issues left from the validation or previous verification.

3.2 Project Implementation

During the site visits, by observing, reviewing operation records and interviewing relevant staff, community members and affected stakeholders (see **Table 2.**), DNV was able to verify that the project has been implemented and operated as described in the CCB PDD and PIR for the project.

The procedures to estimate the total carbon stock in selected pools within the project area and the uncertainty of the estimate at a given point in time have been implemented sufficiently. Allometric equations have been used appropriately and the soil sampling methods are sufficient. Carbon stocks for all strata have been estimated as per the requirements of the VCS methodology (VM0009).

3.3 Completeness of Impact Monitoring

During the site visit, through observation, record review and interviews, it could be confirmed that the monitoring arrangement is in line with the monitoring plan /3/, CCB PDD /1/, PIR /2/, and the applied VCS methodology, VM0009 /27/. All of the necessary parameters have been properly monitored to ensure the accuracy of the emission reduction calculations and community and biodiversity impacts. Details for all of the measured metrics are listed in Tables 4-6.

However, DNV did identify as part of the verification, two possible deviations in the monitoring frequency of the following parameters:

Parameter		Monitoring frequency as per VM0009 Version 1.0	Monitoring frequency in project activity
$\rho_{soil,j,k}$	Bulk density of fine portion of soil sample in plot *j* in stratum *k*	Updated at each monitoring period.	Updated at every monitoring period (at least every 5 years)
$cf_{soil,j,k}$	Carbon fraction of soil sample j in plot in stratum k	Updated at each monitoring period.	Updated at every monitoring period (at least every 5 years)

DNV deems that these do not represent deviations as such since the methodology states in section 13.1 *"After the first monitoring period, all plots and all strata must be re-measured every five years, a process which may be accomplished on an intermittently rotating basis"* which should be applicable to the determination of soil carbon stocks too. DNV, based on its expertise deems that this would be acceptable since:

a) the stratification and sampling provisions should be applicable to all the parameters which are determined through sampling;
b) in the eventuality that degradation or deforestation occurs in the project area, the impact in the soil carbon levels would not be noticed before 3 years so 5 years would be reasonable;
c) conducting a soil sampling in every monitoring event would not be feasible as it would be anti-economical and it would not provide an increase in the accuracy on the estimations of GHG benefits.

DNV concludes that this deviation does not negatively impact the conservativeness of the quantification of GHG emission reductions or removals.

Following the provisions of paragraph 3.5.1. of *VCS Version 3.2*, since these deviations represent a deviation from the criteria and procedures relating to monitoring or measurement set out in the methodology (i.e. frequency) it would be acceptable.

Furthermore, as part of the verification the following mistake was found. The notation of equations [9] and [29] provided in the methodology was incorrect. DNV confirmed that the correct notation was initially applied by the project proponent.

Ref.	Equation
[9]	$\hat{\delta}_{LE} = \log(\hat{d}_t) + \log(1-\hat{d}_t) + \alpha + \hat{\theta}x^T$
[9] corrected	$\hat{\delta}_{LE} = \log(\hat{d}_t) - \log(1-\hat{d}_t) - \alpha - \hat{\theta}x^T$

Ref.	Equation
[29]	$\sum_{i \in M} S\left(t_2^{[m-1]} - t_2^{[m-i-1]}, t_2^{[m]} - t_2^{[m-i]}, \hat{\lambda}, \hat{\ell}_{\max}\right) \cdot \left[F_{DF}\left(t_2^{[m-i]}, \hat{\eta}^{[m-i]}\right) - F_{DF}\left(t_2^{[m-i-1]}, \hat{\eta}^{[m-i-1]}\right)\right.$
[29] corrected	$\sum_{(m-i) \in M} S\left(t_2^{[m-1]} - t_2^{[m-i-1]}, t_2^{[m]} - t_2^{[m-i-1]}, \hat{\lambda}, \hat{\ell}_{\max}\right) \cdot \left[F_{DF}\left(t_2^{[m-i]}, \hat{\eta}^{[m-i]}\right) - F_{DF}\left(t_2^{[m-i-1]}, \hat{\eta}^{[m-i-1]}\right)\right.$

DNV also identified some project description deviations, which are mainly related to the correction of information that was inaccurate in the first VCS PDD:

- $\delta_{LE}, \hat{\delta}_{LE}$ _ Lag parameter of leakage model. According to the VCS-PD this value was 0.4498; however, this was an incorrect misstatement and it is in reality -0.564. The latter was used in the first verification and it has been applied in the second verification as confirmed by DNV.

DNV confirmed that this change would be a correction and it would not affect the applicability or application of the methodology, additionality or the scale of the project.

Table 4 Assessment of All Climate Impact Monitoring

Data / Parameter	Assessment/Observation
Definition of project area boundary.	Observed control of land appears to match mapped boundaries.
Vegetation cover stratification.	Vegetation cover types observed when traveling the project area were checked against mapped cover types for general correspondence.
Biomass plot cover type stratification.	Cover types of a subsample of vegetation plots were assessed using ALOS imagery and potential discrepancies were referred to project staff for checking/correction.
Tree/shrub diameter measurement.	Reviewers also checked a sample of original tree measurements and found that, adjusting for likely growth, recorded tree measurement data corresponded to measurements made by DNV.
Tree/shrub species identification.	Reviewers observed consistent species identification by Wildlife Works staff, within accuracy requirements.
Soil carbon proportion and bulk density.	Soil carbon proportion and bulk density are measured by Crop Nutritional Services in Nairobi. Lab reports

Data / Parameter	Assessment/Observation
	were checked.
Historical forest state classification.	A subsample of historical forest state classifications were checked by observing satellite imagery and found to be reasonable.
Leakage degradation and deforestation.	Wildlife Works staff were observed making degradation/deforestation assessments and the results were reasonable. A sample of deforestation/degradation data was field checked and the data appears plausible.
Reforestation of Mt. Kasigau.	The project proponent continues the planting of seedlings on Mt. Kasigau (an identified HCV area). This was verified through on-site inspections and interviews with project personnel. The success of the reforestation efforts will continually be monitored by the project proponent's staff.
REDD Carbon Inventory Monitoring.	As per the VCS methodology, VM0009, the monitoring team has revisited 20% of the forest plots this past year. DNV also checked that the project proponent has re-cruised 5% of the plots as required by VM0009, as part of their quality assurance check. While on site, DNV revisited randomly selected plots to check that the measurements of the forest plots were within the accuracy thresholds required by VM00009.
Eco-Charcoal Production Facility.	As one of the main degradation activities within the project zone is the illegal harvesting of hardwoods to produce charcoal, the project proponent has continued their eco-charcoal program with the goal to produce enough sustainable charcoal for the communities surrounding the project. The auditors visited a site where this processing of the charcoal occurs and confirmed the progress of this project activity.

Also during the site visit, the auditors assessed the progress made by Wildlife Works to implement the project activities outlined in the PDD. DNV also assessed the monitoring activities conducted by the project proponent to ensure that the impact is being effectively measured and managed. Table 5 summarizes all the project activities that are being implemented by the project proponent. As this is the second verification, several project activities were either modified or replaced by others as experience on the ground and the first round of carbon revenues has changed on site conditions. Where the project activity was not fully implemented, DNV assessed the progress (administrative, business plans, financial projections, and stakeholder interviews). A summary of the auditor's assessment is given in the right hand column.

Table 5 Assessment of All Community Impact Monitoring Activities

Project Activity	Assessment/Observation
Organic Greenhouse.	During the previous monitoring period, an organic greenhouse had been implemented to grow citrus trees for shade and income. These plants are now sold at a discount to local community members. As part of this monitoring period, nurseries have been built in the communities of Maungu, Marungu, Sasenyi, Mukamenyi and Kisamenyi. The respective monitoring and evaluation teams have conducted a short orientation on how to collect data. Tree planting was conducted on the 4th and 5th October, 2011, at Kiteghe primary, Kisimenyi primary, Buguta primary, Mkamenyi primary, kale primary, Marungu primary and secondary and lastly Itinyi primary. On the 11th and 12th October 2011, Wildlife Works continued with the same activities in St Joseph secondary, Marasi primary, Mbele primary, Miasenyi primary and Misharinyi primary school. On 29th and 30th October 2011, Wildlife Works continued by visiting the community land. DNV was able to confirm the progress of these activities through on-site interviews and the revision of pertinent records.
Jojoba Propagation & Extension.	As of the last monitoring period, the project proponent was working in partnership with various Kenyan

Project Activity	Assessment/Observation
	agricultural groups in a two-year trial period to explore the use of Jojoba as a cash crop. Since the last verification, DNV can now confirm that the project proponent is now working with a PhD student from the Sokoine University of Agriculture in Tanzania to characterize, propagate and manage the old Jojoba plantation adjacent to the Rukinga Ranch /44/45/48/. According to the project proponents, the aim here is to now determine the genetic diversity of the shrubs and finesse their multiplication methods in order to improve growth. Currently there is very high demand (along with relatively low supply) for Jojoba. Thusly, the overall goal is, through improved management and capacity building, to improve the livelihoods of poor farmers in the communities.
Marungu Hill Conservancy Association (Financial Aid and Project Proposal System).	The auditors met with the directors of the Marungu Hill Conservancy Association (MHCA). Through this meeting and through the review of pertinent indicators and documentation, DNV can confirm that the project proponents have continued to work with this local association, and that they have currently increased their support of MHCA to 94,500/= per month in order to incorporate salaries for a Project Coordinator, a Financial Manager, four Community Waste Technicians and six Community Wildlife Scouts for this monitoring period /52/.
Mushroom Farms from Elephant Dung.	This project has been discontinued by the project proponents since the last verification period, mainly due to feasibility issues and with the local women's groups interests shifting elsewhere.
School Construction and Bursary Scheme.	This project activity has continued strongly since the last verification. Throughout the project area, initial community income (from carbon revenue) is being channeled into education, primarily though bursaries at this stage. Over 700 students have been given bursaries in the first few months of 2012, where the money goes directly to their schools to ensure their education is secure. The funding given ranges between one term

Project Activity	Assessment/Observation
	and 4 years' sponsorship, depending on the candidate. Students have been funded to go to Universities, Colleges, Youth Polytechnics and Secondary Schools and the candidates include bright pupils, double orphans and vulnerable students. Bursary distribution can be found in an annex to the project implementation report, and this was confirmed by DNV through onsite inspection and record review /2/47/52/56/.
Group Ranch Office Renovations/ Construction.	For this latest monitoring period, the project proponents have renovated 2 Ranch headquarters at Taita and Mgeno ranches, at a cost of approximately $35,000. They have also renovated a ranger post at 6-0 on Rukinga Ranch, which will support local operations for phase II at a cost of $40,000. In addition, the project proponents are also currently in the process of building 2 new ranger posts, one on Sagalla Ranch and the other on Kutima Ranch. Each of these new ranger posts will house a section of rangers that will be involved in alleviating human/wildlife conflict in the surrounding areas. Wildlife Works also plans on investing an additional $5,000 in upgrades to the solar/electrical systems in 3 of their existing ranger posts/2/47/52/56/.
Wildlife Works/Tsavo Soap Factory.	During the first monitoring period, the project proponent developed an independent organic handmade soap factory. For this latest monitoring period, the soap project continues to employ only one person full time, though they do hire up to 4 casual/contract workers who we bring in to help during busy periods. Most of our customers are Now ecotourism camps and lodges who use their soaps in their guest accommodation and/or sell them in boutiques. The project proponent's plan is to continue to grow this business as well as to also produce gift sets incorporating high quality baskets produced in the Kasigau area /2/47/52/56/.
Ecotourism.	During this monitoring period, the project proponents have continued to directly assist (financially and organizationally) local ecotourism efforts on Taita

Project Activity	Assessment/Observation
	Ranch, Kasigau Ranch, and Kiwanjani Ranch. According to the project implementation report, the status of these three facilities are as follows: *Taita Ranch Ecotourism:* Proponents have had talks with a number of safari tour operators in preparation for ecotourism on Taita Ranch already, and they have been provided with financial assistance in the form of advances against their future share of carbon revenues, to assist them with the legal fees incurred in litigation with the Somali cattle operator. Operations on this project have been suspended pending completion of negotiations between the Taita Ranch shareholders and the cattle operator. *Kasigau Rangelands Trust and Ecolodge:* Project on hold pending refinancing structuring Kiwanjani Ecolodge: This project has been completed and is now fully operational. DNV can corroborate these claims through onsite inspection and interviews /2/47/52/56/.
Wildlife Works REDD Project Product Sales and Marketing.	Since the last monitoring period, Wildlife Works has purchased 2 plots of land adjacent to the Nairobi-Mombasa highway, where plans are to build a retail shop and themed restaurant overlooking Tsavo East national park and the Kasigau Corridor REDD project area. In addition, through a small shop at Camp Tsavo on Rukinga Ranch and private sales, the project proponents have managed to increase the numbers of baskets sold from the Kasigau community. Exact accounting figures and jobs created can be found as annexes to the PIR /2/47/52/56/.
Kasigau Development Trust.	This CBO (community based organization) is now a legal entity, with the carbon project also having funded their office construction and equipment. The CBO now meets and operates regularly, and is in the process of distributing the first trench of carbon payments to the greater Kasigau community. They also now have a

Project Activity	Assessment/Observation
	standard operating procedure in place /10/ , and also work as a voice with which to bring community concerns and grievances to project proponents.
Project Broad Environmental Impact, Household Income, Support for Conservation.	The project proponents are still in the midst of developing a baseline survey with which to guide all of their future social impact monitoring through Participatory Rural Appraisals. /7/8/.
Wildlife Works Newsletter	Since the last monitoring period, Wildlife Works has begun to emit a newsletter that circulates to project stakeholders every four months. The following is a description of the activity taken straight from the project proponent's PIR report: Project Description: Our aim is to produce 3 newsletters per year, one every 4 months. They contain updates from Wildlife Works' core activities such as the EPZ and the greenhouse, as well as updates on the community projects funded by the Wildlife Works Carbon Trust. Reports from activity days and community events are included as well as advertising any upcoming any of the same. Our target audience for the newsletters is the nearly 15,000 households spread across our 5 locations. Newsletters are distributed through the Chiefs offices, at community meetings, community events and workshops. Copies are also handed out to visitors of the project and to any interested parties. Since July 2010 we have been authoring and distributing a community newsletter. It was originally written every 2 months, with 2,500 copies printed. Each location was receiving 500 copies that were distributed through the local community chiefs and CBOs in the area: 500 to Marungu Hill using the Chief and the Marungu Hill Conservation Association office and elected community leaders who update each village regularly, 500 to Kasigau using the Chief and Kasigau Development Trust, 500 to Sagalla Hill using the Chief and sub-chiefs and SCARDA. 250 to Mwatate town sub- location, 250 to Mwachabo sub-location, and the remaining 500 copies for discretionary distribution by

Project Activity	Assessment/Observation
	Wildlife Works employees. Eric Sagwe, Wildlife Works' Head Ranger, distributed 250 through the ranger network, 50 copies were kept in the Carbon office and finally 100 sent to the District Commissioner Voi, 50 copies were sent to the District Officer, Voi, and lastly 50 copies to the District Officer Mwatate. As of today, the project proponents have enacted a new format for the monthly newsletters, with now approximately 5,000 total copies produced Monthly, and with each department now contributing to the letter in full (including the biodiversity monitoring team, the organic greenhouse team, the factory teams, etc.) /9/.
Expansion of eco-factories and corporate partnerships.	Since the last monitoring period, Wildlife Works has signed a partnership agreement with Puma to produce clothing at its local eco-factory for Puma's new "Wilderness Collection". WWC has agreed to build a new facility dedicated to production for Puma and in return, Puma agreed to purchase up to 140,000 t-shirts over the next 24 months. Approximately 75 skilled and unskilled workers were hired from the Marungu Location, to build the factory. 38 people are currently employed to produce the t-shirts, and WWC hopes to double this figure as production levels rise. The first Puma shipment will be ready by the end of January, and will be sent to 10 Puma outlets worldwide. Through this partnership, WWC and Puma hope to create jobs for the local communities and emphasize to their customers the important part the Kasigau communities have played in protecting their environment and wildlife. At the same time, Puma's parent company, PPR, (headquartered in Paris), the world's leading luxury brand holding company, announced that it has chosen to partner with Wildlife Works to help offset its annual CO2 emissions through a purchase of nearly 100,000 tons of carbon credits from the REDD project. /2/47/52/56/.

During the site visit, the auditors assessed the progress made by Wildlife Works to implement the project activities outlined in the PDD. DNV also assessed the monitoring activities conducted by the project proponent to ensure that the biodiversity impact is being effectively measured and managed. Table 6 summarizes all the project activities that are being implemented by the project proponent. A summary of the auditor's assessment is given in the right-hand column.

Table 6 Assessment of All Biodiversity Impact Monitoring

Data / Parameter	Assessment/Observation
Wildlife Works REDD Forest and Biodiversity Monitoring.	For this monitoring period, the project proponents have initiated a major new Biodiversity Monitoring Program, which involves the monitoring of vegetation, mammals and birds in the project area and surrounding corridor. A Biodiversity monitoring center has also been built for the team to operate from, and is now fully operational. Dr. Mwangi Githiru has been hired as Wildlife Works' Director of Biodiversity Monitoring and now manages this department and the Biodiversity Monitoring projects, as described below: Road transects: Proponents, to date, have established 27 10-15km long permanent transects for counting wildlife across all 15 ranches included in Phase I and II of the Kasigau REDD project, as well as the Reference Area. In addition to mammals, the project now also counts a collection of other animals such as large birds (e.g., ostrich, bustards and raptors-bird of prey) and reptiles (e.g., snakes and monitor lizards). Transect counts are to be repeated once every 2-3 months. Ranger and Community Scout Monitoring Transects: Teams of Rangers & Community Scouts (R&CS) are now in place who crisscross the entire project area (Kasigau Corridor) everyday both by foot and cars, checking for presence of wildlife and for evidence of illegal activities such as snaring, wood harvesting, illegal grazing or charcoal production. The proponents have prepared a manual (Wildlife Works Ranger and

Data / Parameter	Assessment/Observation
	Community Scouts Biodiversity Monitoring Manual) that will guide their work in collecting the information required towards delivering their biodiversity-related commitments. Camera traps: To add on to the road transect monitoring efforts above, the project proponents have set up camera traps at 24 randomly selected sites on Rukinga Ranch in order to enable them to observe and collect data on all animals passing near the camera, 24 hours a day, 7 days a week. All of the data collected and results shown within the PIR are shown to be appropriate for this verification period /7/48/.
Community Wildlife Scouts.	Since the last verification, Wildlife Works has hired scouts to monitor the community areas (6 so far in the Marungu Hills area). They have also expanded this effort into Kasigau, Mwatate, Mwachabo and Sagalla locations, creating community awareness and increasing knowledge about the value of conservation. These scouts continue to be responsible for collaborating with the communities to curb the trend of deforestation degradation in the areas immediately surrounding the communities. /44/48/53/54/.
Indigenous Tree Seedling Purchasing Program	The tree-planting program is ongoing. In November 2010, 15,940 tree seedlings were planted in the Kasigau corridor, with monitoring in February 2011 showing a survival rate of 62%. In April 2011, 27,387 tree seedlings were planted with monitoring in October 2011 showing a survival rate of 54%. In November 2011, 27,566 tree seedlings were planted, the monitoring of which will happen in mid-April 2012. The next planting will be done at the end of April 2012 towards the end of the rainy season. /44/48/53/54/.

3.4 Accuracy of Emission Reduction Calculations

Since this 2nd periodic CCB verification was carried out concurrently with that of the 2nd VCS monitoring period, the following section is directly taken from the respective VCS verification report in order to better explain the accuracy of emissions reduction calculations.

According to the applicable methodology VM0009 Version 1.0 the net GHG emission reductions and removals ($C^{[m]}$) for the monitoring period [m] would be equal to the sum of the avoided baseline emissions ($C_{BE}^{[m]}$), the confidence deduction ($C_{U}^{[m]}$), the project emissions ($C_{PE}^{[m]}$) and the emissions from leakage ($C_{LE}^{[m]}$), as follows:

$$C^{[m]} = C_{BE}^{[m]} - C_{U}^{[m]} - C_{PE}^{[m]} - C_{LE}^{[m]}$$

Baseline emissions and removals

According to the applicable methodology VM0009 Version 1.0 the avoided baseline emissions ($C_{BE}^{[m]}$) for the monitoring period [m] would be equal to sum of estimated emissions over selected carbon pools:

$$C_{BE}^{[m]} = \sum_{j \in C} C_{BE,j}^{[m]}$$

According to the registered VCS PD no baseline emissions in wood products would be considered as this has been demonstrated to be *de-minimus* in the project activity. Furthermore, the project proponent has not selected the lying dead wood carbon pool and has not established a minimum diameter to define a small tree so the large tree biomass and small tree biomass would be accounted together. Moreover, the project proponent has estimated together the baseline emissions in the above ground large trees (including small trees) and in standing dead wood as in the previous monitoring period these two carbon pools were aggregated. Therefore, the avoided baseline emissions for the monitoring period [m] would be equal to:

$$C_{BE}^{[m]} = \left(C_{BE,AGLT}^{[m]} + C_{BE,SDW}^{[m]}\right) + C_{BE,AGNT}^{[m]} + C_{BE,BGLT}^{[m]} + C_{BE,BGNT}^{[m]} + C_{BE,SOIL}^{[m]}$$

Where:

$C_{BE,AGLT}^{[m]}$	Sum of baseline emissions in above ground large trees (including small trees)
$C_{BE,AGNT}^{[m]}$	Baseline emissions in above ground non trees
$C_{BE,BGLT}^{[m]}$	Baseline emissions of below ground large trees (including small trees)
$C_{BE,BGNT}^{[m]}$	Baseline emissions in below ground non trees
$C_{BE,SDW}^{[m]}$	Baseline emissions in standing dead wood

$C_{BE,SOIL}^{[m]}$ Baseline emissions in soil

DNV has verified the calculation of the emissions from each of these carbon pools:

Baseline emissions in above ground large trees (including small trees) and Aboveground Standing Dead Wood

The project proponent has estimated the baseline emissions in above ground large trees together with small trees and the standing dead wood. Therefore, following the formulae of the applicable methodology VM0009 Version 1.0 the baseline emissions from the above ground large trees and standing dead wood for the monitoring period [m] ($C_{BE,AGLT}^{[m]} + C_{BE,SDW}^{[m]}$) would be equal to:

$$C_{BE,AGLT}^{[m]} + C_{BE,SDW}^{[m]} = F_{DF}\left(t_2^{[m]}, \hat{\eta}^{[m]}\right) \cdot (C_{AGLT}^{[m]} + C_{SDW}^{[m]}) - F_{DF}\left(t_2^{[m-1]}, \hat{\eta}^{[m-1]}\right) \cdot (C_{AGLT}^{[m-1]} + C_{SDW}^{[m-1]})$$

Where:

$F_{DF}\left(t_2^{[m]}, \hat{\eta}^{[m]}\right)$ Predicted proportion of cumulative deforestation at monitoring period [m]. This would be equal to 0.221543 in the present monitoring period.

$F_{DF}\left(t_2^{[m-1]}, \hat{\eta}^{[m-1]}\right)$ Predicted proportion of cumulative deforestation at monitoring period [m-1]. This would be equal to 0.189894 in the previous monitoring period.

$C_{AGLT}^{[m]}$ Carbon stock in above-ground large trees for monitoring period [m] (tCO_2e). Considering equations [44], [45] and [50] of the applicable methodology, this would be calculated using the following formula:

$$C_{AGLT}^{[m]} = \sum_{k \in \delta} \frac{a_k}{n_k} \sum_{j \in P_k} \frac{1}{a_{j,k}} \sum_{i \in X_{j,k}} \frac{44}{12} \times \frac{1}{1{,}000} \times f_{sp}(\bullet) \times cf_{sp}$$

Where:

- a_k : Area of stratum k (ha). DNV verified the input values as assessed in Appendix C (c.f. Parameter "a_k _ Area of stratum k") and confirmed that these verified values were used in the GHG benefits calculation spreadsheet.
- $\hat{n}_k$: Estimated total number of plots required in stratum k (count). DNV confirmed that the correct number of plots per stratum have been used in order to determine the average stocks per plot.
- $a_{j,k}$: Area of plot j in stratum k (ha). DNV verified the input values as assessed in Appendix C (c.f. Parameter "$a_{j,k}$: Area of plot j in stratum k") and confirmed that these verified values were used in the GHG benefits calculation spreadsheet.

- $f_{sp}(\bullet)$: Allometric equation for species *sp.* (function). DNV checked the forest inventory calculation spreadsheet and confirmed that the project proponent has applied the allometric equations specified in annex of the VCS-PD and are consistent with the allometry produced for the project. DNV also confirmed that these equations have been applied to the verified values of breast height diameter included in Appendix B (c.f. parameter "Diameter at breast height of the tree i[th] in plot j in stratum k - $dbh_{i,j,k}$ ")
- cf_{sp} : Carbon fraction of dry matter for species *sp.* (tC/t d.m.). The project proponent has applied 0.5 tC/t d.m in the GHG benefits calculation spreadsheet which is the value assumed in the VCS-PD.

DNV confirmed that the carbon stock in above-ground large trees for monitoring period [m] would be equal to 1 549 477 tCO_2e.

$C_{SDW}^{[m]}$ Carbon stock in standing dead wood for monitoring period [m] (tCO_2e). Considering equations [44] and [66] of the applicable methodology, this would be calculated using the following formula:

$$C_{SDW}^{[m]} = \sum_{k \in \delta} \frac{a_k}{n_k} \sum_{j \in P_k} \left(y_{INTACT,j,k} + y_{DECAYED,j,k} \right)$$

Where:

- a_k : Area of stratum k (ha). DNV verified the input values as assessed in Appendix C (c.f. Parameter "$a_{j,k}$: Area of plot j in stratum k") and confirmed that these verified values were used in the GHG benefits calculation spreadsheet.
- $\hat{n}_k$: Estimated total number of plots required in stratum k (count). DNV confirmed that the correct number of plots per stratum have been used in order to determine the average stocks per plot.
- $y_{INTACT,j,k}$: Carbon stock in standing dead trees in decay class I, plot j, stratum (tCO_2e). This is calculated with as:

$$y_{INTACT,j,k} = \frac{1}{a_{j,k}} \sum_{i \in X_{j,k}} \frac{44}{12} \times \frac{1}{1{,}000} \times f_{sp}(\bullet) \times cf_{sp}$$

Where:

- $f_{sp}(\bullet)$: Allometric equation for species *sp*. (function). DNV checked the forest inventory calculation spreadsheet and confirmed that the project proponent has applied the allometric equations specified in annex of the VCS-PD and are consistent with the allometry produced for the project. DNV also confirmed that these equations have been applied to the verified values of breast height diameter included in Appendix B (c.f. parameter "Diameter at breast height of the tree ith in plot j in stratum k - $dbh_{i,j,k}$ ").
- cf_{sp} : Carbon fraction of dry matter for species *sp*. (tC/t d.m.). The project proponent has applied 0.5 tC/t d.m in the GHG benefits calculation spreadsheet which is the value assumed in the VCS-PD.

- $y_{DECAYED,j,k}$: Carbon stock in standing dead trees in decay class II, plot j, stratum k (tCO_2e). This is calculated with the following formula:

$$y_{DECAYED,j,k} = \frac{1}{a_{j,k}} \sum_{i \in X_{j,k}} \frac{44}{12} \times \frac{1}{1{,}000} \times cf_{sp} \times \rho_{sp} \times \frac{\pi \cdot h_{i,j,k} \cdot \left(dbh_{i,j,k}^2 / 8 + dbh_{i,j} \right.}{3}$$

Where:

- cf_{sp} : Carbon fraction of dry matter for species *sp*. (tC/t d.m.). The project proponent has applied 0.5 tC/t d.m in the GHG benefits calculation spreadsheet which is the value assumed in the VCS-PD.
- ρ_{sp} : Wood density of species *sp* (kg m^{-3}). The project proponent has applied 0.24 kg m^{-3} in the GHG benefits calculation spreadsheet which is the value assumed in the VCS-PD.
- $dbh_{i,j,k}$: Diameter at breast height of the tree ith in plot j in stratum k (Centimetres). DNV confirmed that the project proponent has applied in the verified values in Appendix B (c.f. parameter "Diameter at breast height of the tree ith in

plot j in stratum k - $dbh_{i,j,k}$ ") in the forest inventory calculations.

- $h_{i,j,k}$: Height of the ith tree in plot j in stratum k. These values have been verified in Appendix B (c.f. parameter "Height of the ith tree in plot j in stratum k. - $h_{i,j,k}$ ").

DNV confirmed that the carbon stock in standing dead wood for monitoring period [m] would be equal to 30 696 tCO_2e.

$C_{AGLT}^{[m-1]} + C_{SDW}^{[m-1]}$ The carbon stock in standing dead wood for monitoring period [m-1] and the carbon stock in above-ground large trees for monitoring period [m-1] were aggregated in the previous monitoring period and was equal to 1 604 351 tCO_2e as evidenced by the previous verification report and supporting documentation.

Hence the baseline emissions from the above ground large trees and standing dead wood for the monitoring period [m] ($C_{BE,AGLT}^{[m]} + C_{BE,SDW}^{[m]}$) would be equal to 0.221543*(1 549 477+30 696)-0.189894*1 604 351 = **45 420 tCO_2e.**

- ***Baseline emissions in above ground non trees***

According to the applicable methodology VM0009 Version 1.0 the baseline emissions in above ground non trees ($C_{BE,AGNT}^{[m]}$) for the monitoring period [m] would be equal to:

$$C_{BE,AGNT}^{[m]} = F_{DF}\left(t_2^{[m]}, \hat{\eta}^{[m]}\right) \cdot C_{AGNT}^{[m]} - F_{DF}\left(t_2^{[m-1]}, \hat{\eta}^{[m-1]}\right) \cdot C_{AGNT}^{[m-1]}$$

Where:

$F_{DF}\left(t_2^{[m]}, \hat{\eta}^{[m]}\right)$ Predicted proportion of cumulative deforestation at monitoring period [m]. This would be equal to 0.221543 in the present monitoring period.

$F_{DF}\left(t_2^{[m-1]}, \hat{\eta}^{[m-1]}\right)$ Predicted proportion of cumulative deforestation at monitoring period [m-1]. This would be equal to 0.189894 in the previous monitoring period.

$C_{AGNT}^{[m]}$ Carbon stock in above-ground non trees for monitoring period [m] (tCO_2e). Considering equations [44], [45] and [54] of the applicable methodology, this would be calculated using the following formula:

$$C_{AGNT}^{[m]} = \sum_{k \in \delta} \frac{a_k}{n_k} \sum_{j \in P_k} \frac{1}{a_{j,k}} \sum_{i \in X_{j,k}} \frac{44}{12} \times \frac{1}{1{,}000} \times f_{sp}(v) \times cf_{sp}$$

Where:

- a_k : Area of stratum k (ha). Refer to the estimation of the carbon stock in above-ground large trees for monitoring period [m] above.
- $\hat{n}_k$: Estimated total number of plots required in stratum k (count). Refer to the estimation of the carbon stock in above-ground large trees for monitoring period [m] above.
- $a_{j,k}$: Area of plot j in stratum k (ha). Refer to the estimation of the carbon stock in above-ground large trees for monitoring period [m] above.
- $f_{sp}(v)$: Allometric equation for species *sp.* (function) or species/size class tables (number). DNV checked the forest inventory calculation spreadsheet and confirmed that the project proponent has applied the species/Size class defined values specified in annex of the VCS-PD. DNV also confirmed that these values have been applied adequately to the bush species and size class values verified in Appendix B (c.f. parameter "Shrub size class per species - v ").
- cf_{sp} : Carbon fraction of dry matter for species *sp.* (tC/t d.m.). Refer to the estimation of the carbon stock in above-ground large trees for monitoring period [m] above.

DNV confirmed that the carbon stock in above-ground non trees for monitoring period [m] would be equal to 267 637 tCO_2e.

$C_{AGNT}^{[m-1]}$ The carbon stock in above-ground non trees for monitoring period [m-1] was equal to 270 341 tCO_2e as evidenced by the previous verification report and supporting documentation.

Hence the baseline emissions in above ground non trees ($C_{BE,AGNT}^{[m]}$) would be equal to 0.221543*270 341-0.189894*267 637 = **7 957 tCO_2e.**

Baseline emissions in below ground large trees (including small trees) and below ground Standing Dead Wood

According to the applicable methodology VM0009 Version 1.0 the baseline emissions in below ground large trees and below ground standing deadwood ($C_{BE,BGLT}^{[m]} + C_{BE,SDW}^{[m]}$) for the monitoring period [m] would be equal to:

$$C_{BE,BGLT}^{[m]} = F_{DF}\left(t_2^{[m]},\hat{\eta}^{[m]}\right)\cdot\left(p_{BGLT}\cdot C_{BGLT}^{[m]} + C_{SDW}^{[m]}\right) - F_{DF}\left(t_2^{[m-1]},\hat{\eta}^{[m-1]}\right)\cdot\left(p_{BGLT}\cdot C_{BGLT}^{[m-1]} + C_{SDW}^{[m-1]}\right)$$

Where:

p_{BGLT} Proportion of below-ground large tree biomass removed as a result of land conversion to agriculture. The project proponent assumed this to be 1 as evidenced by the VCS-PD.

$F_{DF}\left(t_2^{[m]},\hat{\eta}^{[m]}\right)$ Predicted proportion of cumulative deforestation at monitoring period [m]. This would be equal to 0.221543 in the present monitoring period.

$F_{DF}\left(t_2^{[m-1]},\hat{\eta}^{[m-1]}\right)$ Predicted proportion of cumulative deforestation at monitoring period [m-1]. This would be equal to 0.189894 in the previous monitoring period.

$C_{BGLT}^{[m]}$ Carbon stock in below-ground large trees for monitoring period [m] (tCO_2e). Considering equations [44], [45] and [54] of the applicable methodology, this would be calculated using the following formula:

$$C_{BGLT}^{[m]} = \sum_{k\in\delta}\frac{a_k}{n_k}\sum_{j\in P_k}\frac{1}{a_{j,k}}\sum_{i\in X_{j,k}}\frac{44}{12}\times\frac{1}{1{,}000}\times f_{sp}(\bullet)\times cf_{sp}\times r_{sp}$$

Where:

Where:

- a_k : Area of stratum k (ha). Refer to the estimation of the carbon stock in above-ground large trees for monitoring period [m] above.
- $\hat{n}_k$: Estimated total number of plots required in stratum k (count). Refer to the estimation of the carbon stock in above-ground large trees for monitoring period [m] above.
- $a_{j,k}$: Area of plot j in stratum k (ha). Refer to the estimation of the carbon stock in above-ground large trees for monitoring period [m] above.
- $f_{sp}(\bullet)$: Allometric equation for species *sp*. (function). Refer to the estimation of the carbon stock in above-ground large trees for monitoring period [m] above.
- cf_{sp} : Carbon fraction of dry matter for species *sp.* (tC/t d.m.). Refer to the estimation of the carbon stock in above-ground large trees for monitoring period [m] above.
- r_{sp} : Ratio of below-ground biomass to above-ground biomass (root to shoot ratio) for species sp. The project proponent applied the

value of 0.4 in the in the GHG benefits calculation spreadsheet which is the value assumed in the VCS-PD.

DNV confirmed that the carbon stock in below-ground large trees for monitoring period [m] would be equal to 619 791 tCO_2e.

$C_{SDW}^{[m]}$

Although the methodology establishes that the carbon stock Carbon stock in belowground standing dead wood for monitoring period [m] (tCO_2e) has to be calculated through equation [45], the same methodology establishes that "*The carbon stock of standing dead trees in decay class I is estimated using the same equations developed for live trees*". Hence, the project proponent has also determine the below ground biomass of standing dead wood of trees in decay class I.
Carbon stock in belowground standing dead wood for monitoring period [m] (tCO_2e). Considering equations [44] and [66] of the applicable methodology, this would be calculated using the following formula:

$$C_{SDW}^{[m]} = \sum_{k \in \delta} \frac{a_k}{n_k} \sum_{j \in P_k} \left(y_{INTACT,j,k} + y_{DECAYED,j,k} \right)$$

Where:

- a_k : Area of stratum k (ha). DNV verified the input values as assessed in Appendix C (c.f. Parameter "$a_{j,k}$: Area of plot j in stratum k") and confirmed that these verified values were used in the GHG benefits calculation spreadsheet.
- $\hat{n}_k$: Estimated total number of plots required in stratum k (count). DNV confirmed that the correct number of plots per stratum have been used in order to determine the average stocks per plot.
- $y_{INTACT,j,k}$: Carbon stock in standing dead trees in decay class I, plot j, stratum (tCO_2e). As stated in the methodology, this would be calculated in the same way as the belowground large tree carbon pool. This is calculated with as:

$$y_{INTACT,j,k} = \frac{1}{a_{j,k}} \sum_{i \in X_{j,k}} \frac{44}{12} \times \frac{1}{1{,}000} \times f_{sp}(\bullet) \times cf_{sp} \times r_{sp}$$

Where:

- $f_{sp}(\bullet)$: Allometric equation for species *sp*. (function). DNV checked the forest inventory calculation spreadsheet

and confirmed that the project proponent has applied the allometric equations specified in annex of the VCS-PD and are consistent with the allometry produced for the project. DNV also confirmed that these equations have been applied to the verified values of breast height diameter included in Appendix B (c.f. parameter "Diameter at breast height of the tree ith in plot j in stratum k - $dbh_{i,j,k}$ ").

- cf_{sp} : Carbon fraction of dry matter for species *sp.* (tC/t d.m.). The project proponent has applied 0.5 tC/t d.m in the GHG benefits calculation spreadsheet which is the value assumed in the VCS-PD.
- r_{sp} : Ratio of below-ground biomass to above-ground biomass (root to shoot ratio) for species sp. The project proponent applied the value of 0.4 in the in the GHG benefits calculation spreadsheet which is the value assumed in the VCS-PD.

- $y_{DECAYED,j,k}$: Carbon stock in standing dead trees in decay class II, plot j, stratum k (tCO_2e). As stated in the methodology "*the carbon stock of standing trees in decay class II is conservatively estimated as the biomass in only the remaining bole*". Hence, this is not considered in the quantification of the belowground standing dead wood carbon pool.

DNV confirmed that the carbon stock in below-ground standing dead wood for monitoring period [m] would be equal to 10 650 tCO_2e.

$C_{BGLT}^{[m-1]} + C_{SDW}^{[m-1]}$ The carbon stock in below-ground large trees for monitoring period [m-1] was equal to 641 740 tCO_2e as evidenced by the previous verification report and supporting documentation.

Hence the baseline emissions in below ground large trees ($C_{BE,BGLT}^{[m]}$) for the monitoring period [m] would be equal to 0.221543*(1*619 791+10 650)-0.189894*641 740 = **17 807 tCO_2e.**

Baseline emissions in below ground non trees

According to the applicable methodology VM0009 Version 1.0 the baseline emissions in below ground non trees ($C^{[m]}_{BE,BGNT}$) for the monitoring period [m] would be equal to:

$$C^{[m]}_{BE,BGNT} = F_{DF}\left(t_2^{[m]},\hat{\eta}^{[m]}\right)\cdot C^{[m]}_{BGNT} - F_{DF}\left(t_2^{[m-1]},\hat{\eta}^{[m-1]}\right)\cdot C^{[m-1]}_{BGNT}$$

Where:

$F_{DF}\left(t_2^{[m]},\hat{\eta}^{[m]}\right)$ Predicted proportion of cumulative deforestation at monitoring period [m]. This would be equal to 0.221543 in the present monitoring period.

$F_{DF}\left(t_2^{[m-1]},\hat{\eta}^{[m-1]}\right)$ Predicted proportion of cumulative deforestation at monitoring period [m-1]. This would be equal to 0.189894 in the previous monitoring period.

$C^{[m]}_{BGNT}$ Carbon stock in below-ground non trees for monitoring period [m] (tCO_2e). Considering equations [44], [45] and [50] of the applicable methodology, this would be calculated using the following formula:

$$C^{[m]}_{BGLT} = \sum_{k\in\delta}\frac{a_k}{n_k}\sum_{j\in P_k}\frac{1}{a_{j,k}}\sum_{i\in X_{j,k}}\frac{44}{12}\times\frac{1}{1{,}000}\times f_{sp}(v)\times cf_{sp}\times r_{sp}$$

Where:

- a_k: Area of stratum k (ha). Refer to the estimation of the carbon stock in above-ground large trees for monitoring period [m] above.
- $\hat{n}_k$: Estimated total number of plots required in stratum k (count). Refer to the estimation of the carbon stock in above-ground large trees for monitoring period [m] above.
- $a_{j,k}$: Area of plot j in stratum k (ha). Refer to the estimation of the carbon stock in above-ground large trees for monitoring period [m] above.
- $f_{sp}(v)$: Allometric equation for species *sp*. (function) or species/size class tables (number). DNV checked the forest inventory calculation spreadsheet and confirmed that the project proponent has applied the species/Size class defined values specified in annex of the VCS-PD. DNV also confirmed that these values have been applied adequately to the bush species and size class values verified in Appendix B (c.f. parameter "Shrub size class per species - v").
- cf_{sp}: Carbon fraction of dry matter for species *sp*. (tC/t d.m.). Refer to the estimation of the carbon stock in above-ground large

trees for monitoring period [m] above.

- r_{sp}: Ratio of below-ground biomass to above-ground biomass (root to shoot ratio) for species sp. The project proponent applied the value of 0.4 in the in the GHG benefits calculation spreadsheet which is the value assumed in the VCS-PD.

DNV confirmed that the carbon stock in below-ground non trees for monitoring period [m] would be equal to 107 055 tCO_2e.

$C_{BGNT}^{[m-1]}$ The carbon stock in below-ground non trees for monitoring period [m-1] was equal to 108 137 tCO_2e as evidenced by the previous verification report and supporting documentation

Hence the baseline emissions in below ground large trees ($C_{BE,BGLT}^{[m]}$) for the monitoring period [m] would be equal to 0.221543*107 055-0.189894*108 137 = **3 183 tCO_2e.**

Baseline emissions in soil

According to the applicable methodology VM0009 Version 1.0 the baseline emissions in soil ($C_{BE,SOIL}^{[m]}$) for the monitoring period [m] would be equal to:

$$C_{BE,SOIL}^{[m]} = \sum_{i \in M} S\left(t_2^{[m-1]} - t_2^{[m-i-1]}, t_2^{[m]} - t_2^{[m-i-1]}, \hat{\lambda}, \hat{\ell}_{\max}\right) \cdot \left[F_{DF}\left(t_2^{[m-i]}, \hat{\eta}^{[m-i]}\right) - F_{DF}\left(t_2^{[m-i-1]}, \hat{\eta}^{[m-i-1]}\right)\right] \cdot C_{SOIL}^{[m-i]}$$

Where:

$S\left(t_2^{[m-1]} - t_2^{[m-i-1]}, t_2^{[m]} - t_2^{[m-i]}, \hat{\lambda}, \hat{\ell}_{\max}\right)$ The soil loss function. Where:

- $\hat{\lambda}$: Estimated mean rate of soil carbon loss. This would be equal to 0.55 as evidenced by the registered VCS-PD.
- $\hat{\ell}_{\max}$: The maximum proportion of soil carbon lost over time. This would be equal to 0.45 as evidenced by the registered VCS-PD.

Hence, the soil loss function for the project activity would be:

$0.4557 \cdot \left\{\left[1 - \exp\left(-0.55 \cdot \left(t_2^{[m]} - t_2^{[m-i-1]}\right)\right)\right] - \left[1 - \exp(-0.55 \cdot \left(t_2^{[m-1]} - t_2^{[m-i}\right.\right.\right.$

$F_{DF}\left(t_2^{[m]}, \hat{\eta}^{[m]}\right)$ Predicted proportion of cumulative deforestation at

monitoring period [m]. This would be equal to 0.221543 in the present monitoring period.

$F_{DF}\left(t_2^{[m-1]}, \hat{\eta}^{[m-1]}\right)$ Predicted proportion of cumulative deforestation at monitoring period [m-1]. This would be equal to 0.189894 in the previous monitoring period.

$C_{SOIL}^{[m-i]}$ The carbon stock in soil for monitoring period [m-i].

- $C_{SOIL}^{[m-1]}$ this would be equal to the carbon stocks in the previous monitoring period which is equal to 11 842 344 tCO_2e which is evidenced by the registered VCS-PD.
- $C_{SOIL}^{[m]}$ This would be equal to 12 370 530 tCO_2e. Although the soil carbon stocks have not been measured in this monitoring period, the total carbon stocks have been updated. In the previous monitoring period a simple random sampling was conducted in order to determine the soil carbon stocks in the project area, none of the sampling points fell in two areas which presumably would have less carbon stocks than the rest of areas as it held agricultural activities more than 20 years ago, so the project proponent excised conservatively these areas. In this monitoring period, these areas were included again since it would not be justified to excise these areas based on the sampling scheme; the project proponent conducted as a simple random sampling whereby all the areas within the project boundary would have the chance to be sampled, so the average value provided should be representative of the soils in the project boundary; hence, excising areas which have not been sampled would not be justified. DNV deems that this would be correct. The measured parameters to calculate this parameter were verified by DNV in Appendix B (c.f. Parameters “Bulk density of fine portion of

soil sample in plot *j* in stratum *k* - $\rho_{soil,j,k}$" "Carbon fraction of soil sample j in plot in stratum k - $cf_{soil,j,k}$"). DNV confirmed that the values have been estimated correctly.

Hence the baseline emissions in soil ($C^{[m]}_{BE,SOIL}$) for the monitoring period [m] would be equal to **176 099 tCO_2e.**

The baseline emissions from each of the above carbon pools would be added up in order to estimate the total baseline emissions:

$$C^{[m]}_{BE} = \left(C^{[m]}_{BE,AGLT} + C^{[m]}_{BE,SDW}\right) + C^{[m]}_{BE,AGNT} + \left(C^{[m]}_{BE,BGLT} + C^{[m]}_{BE,SDW}\right) + C^{[m]}_{BE,BGNT} + C^{[m]}_{BE,SOIL}$$

Hence, the total baseline emissions would be equal to 45 420 + 7 957 + 17 807 + 3 183 + 176 099 = **250 465 tCO_2e.**

Project emissions and removals

According to the applicable methodology VM0009 Version 1.0 the project emissions ($C^{[m]}_{PE}$) for the monitoring period [m] would be equal to the emissions due to burning within the project boundary. As stated in the registered VCS-PD and in line with the previous verification report, no project emissions have been identified since no harvesting of biomass occurs within the project boundary by the project proponent as confirmed during the site visit through direct assessment and interviews with stakeholders.

Hence, the project emissions ($C^{[m]}_{PE}$) for the monitoring period [m] would be equal to = **0 tCO_2e.**

Leakage

According to VM0009 Version 1.0, leakage is estimated as follows:

$$C^{[m]}_{LE} = \hat{r}^{[m]}_{LE} \times C^{[m]}_{BE}$$

Where:

$\hat{r}^{[m]}_{LE}$ — The estimated leakage factor as a proportion of baseline emissions (t CO_2-e) which would be calculated with equation [33] of the applicable methodology:

$$\hat{r}^{[m]}_{LE} = \frac{a_{LE}}{p_{forest} \cdot a_{project}} \times \begin{cases} 0 \; if \; \bar{o}^{[m]} - x \le 0 \\ \bar{o}^{[m]} - x \; o.w. \end{cases}$$

Where:

a_{LE}: Total leakage area (ha) which is equal to 30 168.66 ha as verified in Appendix A.

p_{forest}: The proportion of the project area that is forested which is equal to 1 as verified in Appendix A.

$a_{project}$: Total project area which would be equal to 30 168.66 ha as verified in Appendix A.

$\overline{o}^{[m]}$: Average of state observations taken in the leakage area for the monitoring period which is equal to 0.5567 as verified in Appendix A.

x: As per the applicable methodology, this would be equal to:

$$x = \max\begin{Bmatrix} F_{LE}\left(t_2^{[m]}, \hat{\eta}^{[m]}, \hat{\delta}_{LE}\right) \\ F_{LE}\left(t_2^{[reevaluation-1]}, \hat{\eta}^{[reevaluation-1]}, \hat{\delta}_{LE}\right) \\ \overline{o}^{[m-1]} \end{Bmatrix}$$

The first term would be the prediction of the cumulative leakage model at the monitoring period which would be equal to 0.57787884 using the leakage model with the lag parameter of leakage model and estimated deforestation rate as verified in Appendix A. The second term would not be applicable in this monitoring period since the baseline has not been reevaluated yet. The third term would not be applicable since the previous monitoring period was the first monitoring period in which the leakage model was built. Hence, this value would be equal to 0.57787884.

Since the difference between the average of state observations taken in the leakage area for the monitoring period ($\overline{o}^{[m]}$) and x is 0.5567 - 0.57787884 = 0.0211 < 0 $\hat{r}_{LE}^{[m]}$ would be zero.

$C_{BE}^{[m]}$ — The avoided baseline emissions (tCO_2e) which are equal to 250 465 tCO_2e in this monitoring period as assessed above.

Hence, the total leakage in this monitoring period would be equal to 0 x 250 465 = **0 tCO_2e.**

Confidence deduction

According to VM0009 Version 1.0, the confidence deduction would be determined as follows:

$$C_U^{[m]} \begin{cases} 0 \; if \; U^{[m]} \leq 0.15 \\ \dfrac{C_{BE}^{[m]}\left(U^{[m]} - 0.15\right)}{1 - 0.15} \; o.w. \end{cases}$$

Where $U^{[m]}$ is the average uncertainty in carbon stocks and the baseline model which is determined as follows:

$$U^{[m]} = \sqrt{\frac{C_{TOTAL}^{[m]} U_{DF}^2 + C_{TOTAL}^{[m]} \left(U_{TOTAL}^{[m]}\right)^2 + C_{SOIL}^{[m]} U_{SCL}^2}{2\, C_{TOTAL}^{[m]} + C_{SOIL}^{[m]}}}$$

Where:

$C_{TOTAL}^{[m]}$	Estimated total carbon stock in the project area at monitoring period [m] which would be equal to 14 955 836 tCO_2e.
U_{DF}	Estimated uncertainty in the cumulative deforestation model which would be equal to 5.9 as verified in Appendix A.
$U_{TOTAL}^{[m]}$	Estimated uncertainty of total carbon stocks which would be equal to 0.798 as verified in Appendix A.
$C_{SOIL}^{[m]}$	Estimated carbon stock in soil carbon at monitoring period [m] which would be equal to 12 370 530 tCO_2e as stated above.
U_{SCL}	Estimated uncertainty in the soil carbon loss model which would be equal to 13.9 as verified in Appendix A.

Hence, the total uncertainty would be equal to 9.3% so since this is below the 15% maximum allowable confidence as per the applicable methodology the confidence deduction would be equal to = **0 tCO_2e**.

Buffer credits – Non-permanence risk assessment

Following the provisions of paragraph 3.19.2 of the *VCS Version 3.2*, the project participant has conducted a non-permanence risk assessment following the provisions of the AFOLU Non-Permanence Risk tool: VCS Version 3.1. According to this assessment the overall non-permanence risk rating of the proposed project activity is **15%.**

Risk Category	Rating
Internal Risk	13
External Risk	0

Natural Risk	2
Overall Risk Rating (a + b + c)	15 %

Risk ratings for the different risk categories of the proposed project activity.

DNV confirmed that the non-permanence assessment has been carried out adequately, applying conservative assumptions where needed. A detailed assessment of the risk analysis carried out by the project proponent in the non-permanence report can be found in Table 2 of Appendix C of this report.

Net anthropogenic GHG emission reductions and removals

The net anthropogenic GHG emissions and removals from the project activity have been calculated as per the registered VCS-PD and applied methodology VM0009 Version 1.0. According to the applicable methodology VM0009 Version 1.0 the net GHG emission reductions and removals ($C^{[m]}$) for the monitoring period [m] would be equal to the sum of the avoided baseline emissions ($C_{BE}^{[m]}$), the confidence deduction ($C_{U}^{[m]}$), the project emissions ($C_{PE}^{[m]}$) and the emissions from leakage ($C_{LE}^{[m]}$), as follows:

$$C^{[m]} = C_{BE}^{[m]} - C_{U}^{[m]} - C_{PE}^{[m]} - C_{LE}^{[m]}$$

The net anthropogenic GHG emissions and removals verified for the verification period are higher than the *ex-ante* estimated net GHG benefit. The main reason is that in the carbon stocks have increased in relation to the previous estimation, mainly due to the inclusion of areas previously excised in the calculation of the soil carbon stocks, and due to the decrease in the risk buffer and non-existence of leakage in the verification period.

Item	Values applied in *ex-ante* calculation (tCO_2e) – Year 2011	*Ex-post* values (tCO_2e)
Avoided baseline emissions ($C_{BE}^{[m]}$)	239 112	250 465
Confidence deduction ($C_{U}^{[m]}$)	0	0
Project emissions ($C_{PE}^{[m]}$)	0	0
Emissions from leakage ($C_{LE}^{[m]}$)	47 822	0
Net anthropogenic GHG emission reductions and removals ($C^{[m]}$)	191 289	250 465
Buffer	38 257 (20%)	37 570 (15%)
VCUs	153 031	212 895

Comparison of GHG benefits and VCUs reported in registered VCS-PD /2/ and the MR /1/.

No significant reporting risks have been identified for the data reported. All the data required for net anthropogenic GHG removals calculations are obtained following the

Standard Operating Procedures. There are QA/QC measures in place to check the consistency and the correctness of the collected data. After these checks, data is then transferred to specific databases in which a new quality check is done. Four permanent sampling plots are revisited by the plantation management responsible and the carbon project responsible to ensure the transparency and accuracy of the data being monitored and recorded. All reported and consolidated data from the inventory database is processed in order to calculate the net anthropogenic GHG removals and emission reduction. Data collection procedures, QA/QC procedures and its implementation, and the specific databases were verified by DNV.

As this is the forest, inventory is the major source of inherent risk, DNV performed a field verification in order to confirm that the inventory was performed following the SOP in place. DNV requested the project entity to revisit 4 random located sampling plots and to repeat measurements following the SOP in place.

Plot	First measurement		Verification measurement	
	t d.m/ha	Date of measurement	t d.m/ha	Date of measurement
1	31.46	01/09/2011	31.13	26/04/2012
2	45.60	10/5/2011	52.12	26/04/2012
3	52.44	28/4/2011	69.36	26/04/2012
4	44.45	10/5/2011	54.29	26/04/2012

Comparison of volumes between first measurement and verification measurement.

The field verification confirmed that the SOPs were followed during the forest inventory and that any potential source of bias was reduced (i.e. operation of equipment; calibration). Furthermore, it was confirmed that the number of trees per plot and approximate diameter class of each tree were consistent with the previous inventory. DNV further analyzed the data applying a paired t-test and confirmed with an 80% confidence it would not be possible to reject the null-hypothesis that the averages of the inventory measurement and the verification measurement are different.

As outlined above, the input data for calculating the net anthropogenic GHG removals, the calculating process and the result are complete and transparent. Therefore, DNV is able to confirm the accuracy of the net anthropogenic GHG removals by sinks (i.e. net GHG benefits) and the VCUs to be issued.

3.5 Quality of Evidence to Determine Emission Reductions

Since this 2nd periodic CCB verification was carried out concurrently with that of the 2nd VCS monitoring period, the following section is directly taken from the respective VCS

verification report in order to better explain the quality of evidence used to determine emissions reductions.

The net anthropogenic GHG emission reductions and removals by sinks in the monitoring period 1 January 2011 to 31 December 2011was verified to be 250 465 tCO_2e.

Sufficient evidence was presented for the reported net anthropogenic GHG removals. The project entity has in place a monitoring system which has specific procedures for the main activities in which are defined responsibilities for the supervision of the activity, a description of the activity, the QA/QC measures in place, and the recording and archiving of the relevant information. As part of the quality system periodical internal audits are carried out by the quality management responsible to ensure the transparency and accuracy of the data being monitored and recorded. DNV verified that this system is in place and confirms the existence of a clear audit trail.

Furthermore, the recording, archiving and reporting of all data is done through a database, which assures that information is recorded and maintained. DNV verified the information stored in these systems and confirmed that these are consistent with invoices (i.e. seed and fertilizer purchase; inventory collection system, etc.).

3.6 Management Capacity and Best Practices.

The project proponent has established management procedures and implemented the same effectively to ensure that the process is consistent. The procedures cover management responsibilities, data monitoring procedures, training procedures, periodical internal audits, management reviews and corrective actions in case of any deviations effectively. Quality control and quality assurance measures and calibration processes are followed as per defined procedures and carried out periodically.

The responsibility of gathering all data and performing the calculation of the net removals calculation is with the carbon projects manager. The responsibility that there is no data misstatement on the forest inventory data and the operational data is with the Plantation Manager. Periodical internal audits are carried out to ensure the transparency and accuracy of the data being monitored and recorded. DNV was able to confirm that the responsibilities and authorities for monitoring and reporting are in accordance with the responsibilities and authorities stated in the monitoring plan.

3.7 Net Emission Reductions

Applying the calculated project baseline emissions, and the fact that recent assessment shows no deforestation within the project boundary, avoided emissions are calculated using the inputs and methods stated in the project document, and achieved emission reductions are as stated in Table 7.

GHG Emission Reductions or Removals	tCO_2e

Baseline Emissions or Removals	250 465
Confidence deduction	0
Project Emissions or Removals	0
Leakage	0
Net GHG emission reductions or removals	250 465
Buffer (15%)	37 570
VCUs	**212 895**

Net Emission Reductions (NERs), Metric Tonnes CO_2e.

CCB Verification CONCLUSION - Certification Statement

Det Norske Veritas (U.S.A) Inc. (DNV) has performed the verification of the project activities that have been reported for the "Kasigau Corridor REDD Project Phase I – The Rukinga Sanctuary" relative to the Climate, Community and Biodiversity Project Design Standards Second Edition, December, 2008 (CCB Standard) for the period 01 January, 2011 to 31 December, 2011. The project is located in the Kasigau Corridor of Southeastern Kenya, an area of dryland forests that form a wildlife dispersal and migration corridor between Tsavo East and Tsavo West National Parks. The project participants are responsible for the collection of data in accordance with the monitoring plan and the reporting of climate, community and biodiversity benefits. It is DNV's responsibility to express an independent verification statement on the reported climate, community, and biodiversity benefits from the project.

DNV conducted the verification on the basis of the monitoring methodology VM0009 (Version 1), THE CCBA Project Document dated 27 April, 2011, the CCB monitoring plan dated 19 May, 2011, and the Project Implementation Report dated 23 April, 2012.

The verification included:

a) checking whether the provisions of the monitoring methodology and the monitoring plan were consistently and appropriately applied,

b) collecting evidence supporting the reported data, and

c) an assessment of whether the project activities that affected the community and biodiversity were having positive benefits.

DNV planned and performed the verification by obtaining evidence and other information and explanations that DNV considers necessary to give reasonable assurance that reported GHG emission reductions are fairly stated and that the project activities are benefiting the various stakeholders, community and biodiversity of the project zone.

The project proponent is Wildlife Works Carbon LLC. DNV has confirmed that Wildlife Works Carbon LLC has the right to all and any reductions generated by the Project during the period 1 January, 2011 – 31 December, 2011.

The main project activity is to prevent deforestation caused by slash and burn and subsistence farming activities by empowering the local communities with employment opportunities and key infrastructure projects. The project results in reductions of GHG emissions that are real, measurable and give long-term benefits to the mitigation of climate change, have clear socio-economic benefits to the communities surrounding the project area, and to biodiversity.

DNV is able to verify with a reasonable level of assurance that the emission reductions from the "Kasigau Corridor REDD Project Phase I – The Rukinga Sanctuary" during the period 01 January, 2011 to 31 December, 2011 amount to 212 895 tonnes of CO_2 equivalent after a 15% buffer pool deduction amounting to 37 570 tonnes CO_2 equivalent and has accomplished the climate, community, and biodiversity benefits for this verification period through its project activities.

In summary, it is DNV's opinion that the "The Kasigau Corridor REDD Project Phase I – The Rukinga Sanctuary" as described in the CCBA Project Implementation Report dated 23 April 2012 meets all relevant CCBA requirements, at the Gold level for Climate Change Adaptation Benefits.

4 CCBA COMPLIANCE CHECKLIST – THE KASIGAU CORRIDOR REDD PROJECT PHASE I

General Section			***Conformance***		
G1.	Original Conditions in the Project Area (Required)	Yes	☒	No	☐
G2.	Baseline Projects (Required)	Yes	☒	No	☐
G3.	Project Design and Goals (Required)	Yes	☒	No	☐
G4.	Management Capacity and Best Practices (Required)	Yes	☒	No	☐
G5.	Legal Status and Property Rights (Required)	Yes	☒	No	☐
Climate Section					
CL1.	Net Positive Climate Impacts (Required)	Yes	☒	No	☐
CL2.	Offsite Climate Impacts (“Leakage”) (Required)	Yes	☒	No	☐
CL3.	Climate Impact Monitoring (Required)	Yes	☒	No	☐
Community Section					
CM1.	Net Positive Community Impacts (Required)	Yes	☒	No	☐
CM2.	Offsite Community Impacts (Required)	Yes	☒	No	☐
CM3.	Community Impact Monitoring (Required)	Yes	☒	No	☐
Biodiversity Section					
B1.	Net Positive Biodiversity Impacts (Required)	Yes	☒	No	☐
B2.	Offsite Biodiversity Impacts (Required)	Yes	☒	No	☐
B3.	Biodiversity Impact Monitoring (Required)	Yes	☒	No	☐
Gold Section					
GL1.	Climate Change Adaptation Benefits (Optional)	Yes	☒	No	☐
GL2.	Exceptional Community Benefits (Optional)	Yes	☐	No	☒
CL 3.	Exceptional Biodiversity Benefits (Optional)	Yes	☒	No	☐

CCBA Validation Level Attained:

Approved (all requirements met) ☐

Gold (all requirements and also at least one optional Gold Level criterion met) ☒

APPENDIX A

CORRECTIVE ACTION REQUESTS, CLARIFICATION REQUESTS AND FORWARD ACTION REQUESTS

The Kasigau Corridor REDD Project Phase I and Phase II CCB CARs, CLs and FARs

CAR1: Charcoal and Firewood Monitoring (Off-site)

Requirement

"The project proponents must evaluate and mitigate any possible social and economic impacts that could result in the decreased social and economic well-being of the main stakeholders living outside the project zone resulting from project activities. Project activities should at least 'do no harm' to the well-being of offsite stakeholders", per Climate, Community and Biodiversity Project Design Standards (2nd Edition.)

Evidence and Failure

According to an interview conducted with Dr. Mwangi Githiru, Wildlife Works Director of Biodiversity and Social Monitoring, Wildlife Works is in fact involved in conducting a study on how the project has affected local workers involved in the illegal charcoal trade in areas and roads immediately surrounding the project area. While this proves the project proponents' willingness to evaluate and mitigate any possible negative impacts on stakeholders outside of the project area, there is no record or description of such study in either of the monitoring reports for Phase I and II, under sections CM2: Community Offsite Stakeholder Impacts.

Wildlife Works Response

Since February 2012, we have been conducting monthly surveys of the charcoal and firewood extraction out of the project area along a 60km transect line from the north-westernmost point of the Project Area (near Voi town) to the south-eastern end (at McKinnon town; see two figures below). The transect line falls on the main Mombasa-Nairobi Highway. The purpose of the monitoring is twofold:

(i) to ascertain the amount of extraction of fuelwood across the entire project zone within and outside the project area; and

(ii) to establish the major buyers/users/destination of the charcoal and firewood in order to evaluate the impacts of reduced extraction on these external stakeholders.

It follows a simple protocol of 2-4 people driving slowly in a car taking coordinates where charcoal bags and firewood stacks are seen on the roadside; their numbers are also recorded. (NB: Firewood stacks are estimated as a pile of firewood approximately $1m^3$). As an example, during the first two rounds of data collection there were 41 and 29 incidences of charcoal and firewood stacks, respectively, recorded along the 60km transect, with a total number of 306 and 201 charcoal bags and firewood stacks, respectively (Table 1).

Figure 1: Points where charcoal bags and/or firewood stacks were recorded during the transects on 23 Feb 2012 and 14 Mar 2012

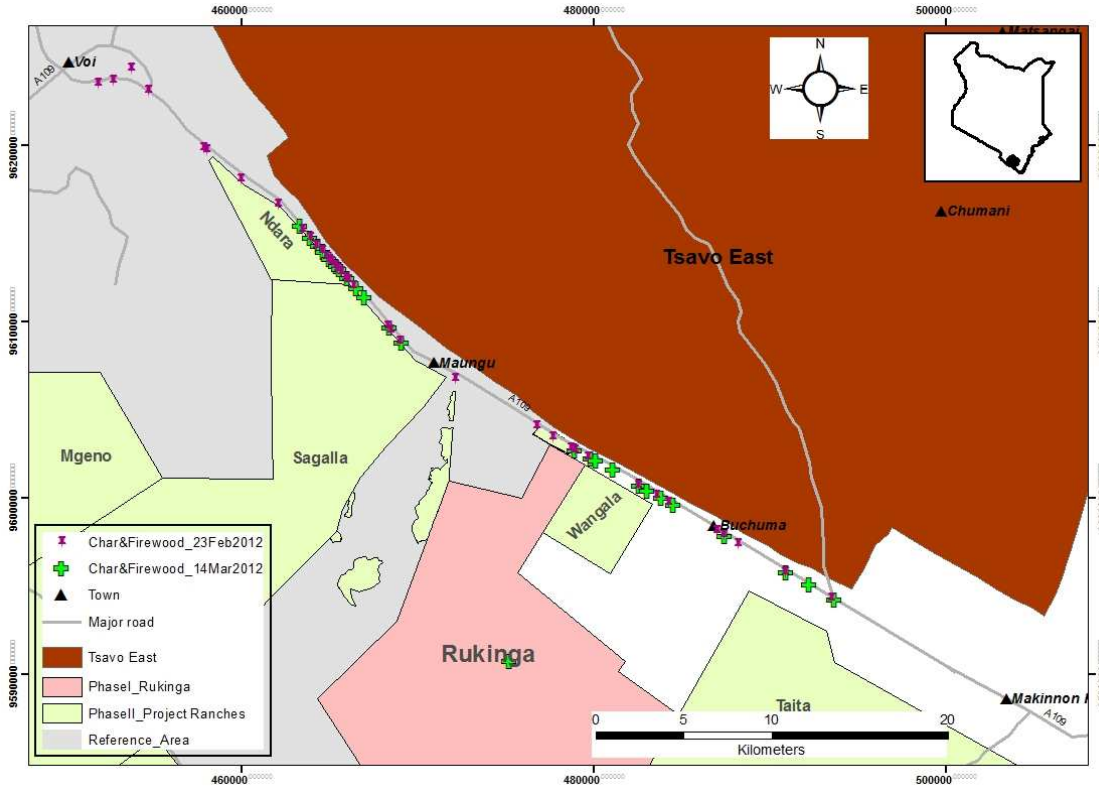


Figure 2: Points where charcoal bags and/or firewood stacks were recorded during the transects on 23 Feb 2012 and 14 Mar 2012



Table 1: Number of charcoal bags and/or firewood stacks that were recorded during the transects on 23 Feb 2012 and 14 Mar 2012

Date	Start time	Observers	Waypoint	Incidence	No
23-Feb	17:22	MG/BA	9	Firewood	1
23-Feb	17:22	MG/BA	10	Charcoal	5
23-Feb	17:22	MG/BA	11	Charcoal	4
23-Feb	17:22	MG/BA	12	Charcoal	20
23-Feb	17:22	MG/BA	12	Firewood	1
23-Feb	17:22	MG/BA	13	Charcoal	9
23-Feb	17:22	MG/BA	13	Firewood	8
23-Feb	17:22	MG/BA	14	Charcoal	6
23-Feb	17:22	MG/BA	14	Firewood	7
23-Feb	17:22	MG/BA	15	Charcoal	7
23-Feb	17:22	MG/BA	15	Firewood	4
23-Feb	17:22	MG/BA	16	Charcoal	13
23-Feb	17:22	MG/BA	17	Charcoal	8
23-Feb	17:22	MG/BA	18	Charcoal	2
23-Feb	17:22	MG/BA	19	Charcoal	12
23-Feb	17:22	MG/BA	19	Firewood	8
23-Feb	17:22	MG/BA	20	Firewood	10
23-Feb	17:22	MG/BA	21	Charcoal	5
23-Feb	17:22	MG/BA	22	Charcoal	6
23-Feb	17:22	MG/BA	23	Charcoal	12
23-Feb	17:22	MG/BA	24	Firewood	2
23-Feb	17:22	MG/BA	29	Charcoal	9
23-Feb	17:22	MG/BA	29	Firewood	11
23-Feb	17:22	MG/BA	31	Charcoal	5
23-Feb	17:22	MG/BA	31	Firewood	8
23-Feb	17:22	MG/BA	32	Charcoal	3
23-Feb	17:22	MG/BA	33	Charcoal	2
23-Feb	17:22	MG/BA	35	Charcoal	10
23-Feb	17:22	MG/BA	36	Firewood	5
23-Feb	17:22	MG/BA	37	Firewood	12
14-Mar	16:40	BA/NN/DM/JM	45	Charcoal	8
14-Mar	16:40	BA/NN/DM/JM	46	Charcoal	2
14-Mar	16:40	BA/NN/DM/JM	47	Charcoal	6
14-Mar	16:40	BA/NN/DM/JM	48	Charcoal	20
14-Mar	16:40	BA/NN/DM/JM	48	Firewood	2
14-Mar	16:40	BA/NN/DM/JM	48	Firewood	20
14-Mar	16:40	BA/NN/DM/JM	48	Charcoal	13

Date	Start time	Observers	Waypoint	Incidence	No
14-Mar	16:40	BA/NN/DM/JM	48	Firewood	13
14-Mar	16:40	BA/NN/DM/JM	49	Charcoal	10
14-Mar	16:40	BA/NN/DM/JM	49	Firewood	11
14-Mar	16:40	BA/NN/DM/JM	50	Firewood	4
14-Mar	16:40	BA/NN/DM/JM	50	Firewood	10
14-Mar	16:40	BA/NN/DM/JM	50	Charcoal	3
14-Mar	16:40	BA/NN/DM/JM	51	Charcoal	9
14-Mar	16:40	BA/NN/DM/JM	51	Charcoal	20
14-Mar	16:40	BA/NN/DM/JM	52	Charcoal	12
14-Mar	16:40	BA/NN/DM/JM	52	Firewood	9
14-Mar	16:40	BA/NN/DM/JM	53	Charcoal	2
14-Mar	16:40	BA/NN/DM/JM	54	Charcoal	3
14-Mar	16:40	BA/NN/DM/JM	55	Charcoal	25
14-Mar	16:40	BA/NN/DM/JM	55	Active Charcoal Kiln	2
14-Mar	16:40	BA/NN/DM/JM	56	Firewood	3
14-Mar	16:40	BA/NN/DM/JM	57	Charcoal	13
14-Mar	16:40	BA/NN/DM/JM	57	Firewood	15
14-Mar	16:40	BA/NN/DM/JM	58	Firewood	1
14-Mar	16:40	BA/NN/DM/JM	59	Charcoal	1
14-Mar	16:40	BA/NN/DM/JM	59	Firewood	5
14-Mar	16:40	BA/NN/DM/JM	60	Charcoal	3
14-Mar	16:40	BA/NN/DM/JM	61	Firewood	10
14-Mar	16:40	BA/NN/DM/JM	61	Charcoal	4
14-Mar	16:40	BA/NN/DM/JM	62	Charcoal	4
14-Mar	16:40	BA/NN/DM/JM	63	Charcoal	1
14-Mar	16:40	BA/NN/DM/JM	64	Charcoal	1
14-Mar	16:40	BA/NN/DM/JM	65	Charcoal	8
14-Mar	16:40	BA/NN/DM/JM	66	Firewood	16
14-Mar	16:40	BA/NN/DM/JM	67	Firewood	1
14-Mar	16:40	BA/NN/DM/JM	68	Firewood	4

DNV finds that this new study now assures that the project proponents comply with the CCB guidelines concerning offsite stakeholders. CAR 1 is closed.

CAR2: Exceptional Biodiversity Benefits

Requirement

During Phase I and II validations, it was determined that the projects reached Gold Level CCBA validation by meeting the criterion of both the optional climate change adaptation benefits as well as the exceptional biodiversity benefits. Per the second version of the Climate, Community and Biodiversity Project Design Standards, in order for projects to meet

the criterion for exceptional biodiversity benefits, project proponents must exhibit the following indicators:

1. Vulnerability
Regular occurrence of a globally threatened species (according to the IUCN Red List) at the site:

1.1. Critically Endangered (CR) and Endangered (EN) species - presence of at least a single individual; or
1.2. Vulnerable species (VU) - presence of at least 30 individuals or 10 pairs.

Or,

2. Irreplaceability
A minimum proportion of a species' global population present at the site at any stage of the species' lifecycle according to the following thresholds:

2.1. Restricted-range species - species with a global range less than 50,000 km2 and 5% of global population at the site; or
2.2. Species with large but clumped distributions - 5% of the global population at the site; or
2.3. Globally significant congregations - 1% of the global population seasonally at the site; or
2.4. Globally significant source populations - 1% of the global population at the site;

Evidence and Failure
Although the biodiversity monitoring plan and database were reviewed during the desk review and site visit portions of the audit, DNV kindly asks the project proponents, if they wish to retain their gold level status, to please include within the exceptional biodiversity benefits section of the monitoring reports, the required evidence to show that the projects can demonstrate that their areas still include sites of high biodiversity conservation priority for the latest monitoring period in question (January 1st, 2011-December 31st, 2011).

Wildlife Works Response
Monitoring Team: Wildlife Works has invested heavily in setting up a dedicated Biodiversity and Social Monitoring team, as well as setting up a GIS Desk to be gradually up-scaled into a Centre of Excellence for the Kasigau Corridor Project. This entire unit will be housed in the newly built Research Centre located within Rukinga Ranch. The following outlines the key data related to exceptional biodiversity benefits during the reporting period.

Vulnerability
Critically endangered
The project area still boasts several globally threatened species within it, two of which are Critically Endangered and were seen during the reporting period:

- *Grevy's Zebra*: stronghold for this species in this area is in Taita Ranch but also occurs uncommonly in Rukinga and Kambanga ranches; fairly common in the areas it occurs. This species was sighted more than 10 times during the reporting period, including the big group of eight (5 adults and 3 immature) below seen in Taita Ranch during our routine two-monthly road transect censuses on 3 November 2011. Presence of foals (such as the one seen here on 25 September 2011) proves active breeding in the project area.




- *African Wild Dog*: this species is rare in the project area. It was recorded twice during the reporting period, with two packs of 15 and 17 individuals seen. Both sightings were in the southern part of Rukinga, near the southernmost tip where Rukinga-Taita-Amaka ranches converge.



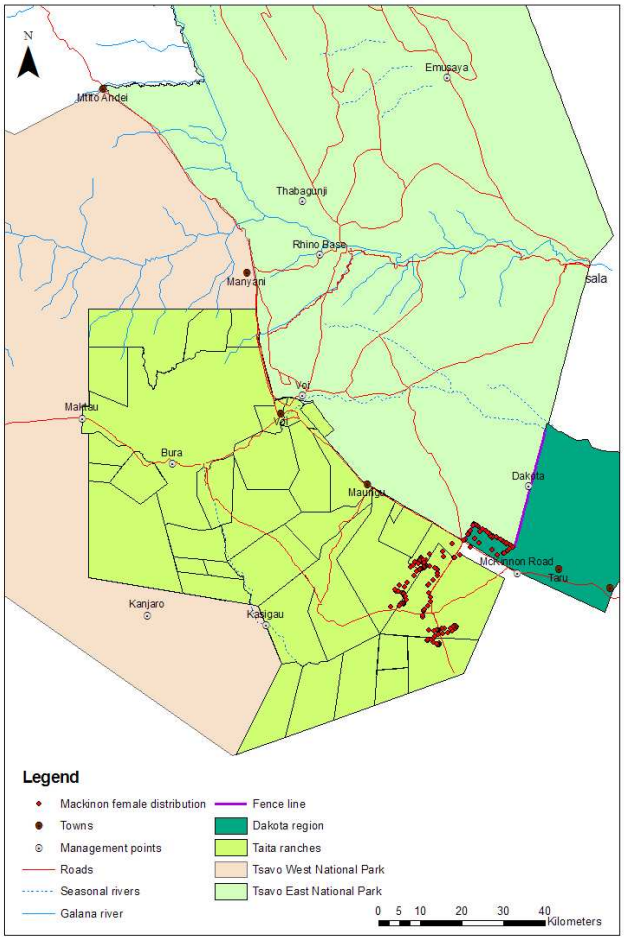

Threatened or Vulnerable

- *African Elephant*: the project area contains several hundred elephants that are resident as well as several hundred more that pass through occasionally. They are broadly distributed and regularly sighted across the entire project zone, including large (>20) family (breeding) groups such as shown here wallowing in one of our waterholes; >10 bull herds are also commonly sighted. There is good evidence of elephant movement (**corridor function**) between the project area and the two national parks (Tsavo East and West), with one of



the five elephants radio collared under the Kenya Wildlife Service (KWS) and International Fund for Animal Welfare (IFAW) initiative in Tsavo East showing impressive movements over the span of a week where it left Tsavo east, went into the project area, and back (Figure 3).

Figure 3: Distribution of McKinnon female from 12th to 19th November 2011



- Big Cats: lions and cheetahs are relatively common across the project area and were fairly regularly spotted in the project area, including two sightings of lions with 4 cubs each, which indicates breeding in the project area.



- Raptors: A wide of array of birds of prey that are globally-threatened were seen on a regular basis on the project area including: Martial Eagle, White-backed and Lappet-faced Vultures, as well as the Secretary Bird



DNV finds the response submitted by the project proponent to be sufficient in order to continue extending the gold benefits in question. CAR 2 is closed.

CL1: Communication of open door policy to all stakeholders

Requirement

"Demonstrate with documented consultations and agreements that the project will not encroach uninvited on private property, community property, or government property and has obtained the free, prior, and informed consent of those whose rights will be affected by the project - per Climate, Community and Biodiversity Project Design Standards (2nd Edition.)

Evidence

While it is evident that free, prior, and informed consent (FPIC) was sought when reaching respective agreements with involved communities and landowners directly affected by the projects, various recent studies (1,2,3) point towards FPIC being regarded as an on-going process rather than a one-time decision, meaning that this consent should not only be monitored into the future, but that it should also have an established grievance and feedback mechanism put in place. While evidence was provided during the site visit showing that Wildlife Works has an "open door" policy with its stakeholders, many landowners claim to desire increased transparency in their relationship with the project proponents; i.e.: being able to view the carbon sales agreements produced/disbursement of funds and benefits.

Clarification

Clarification is sought in understanding how Wildlife Works communicates its open door/grievance policy with stakeholders, why some ranch owners were not aware such documents could be made available to them, and how this will be remedied in the future.

Wildlife Works Clarification

Besides general communication to project stakeholders (see CL2 below), our Carbon Office communicates to landowners on a quarterly basis updating them about the project status. They are provided with a statement showing sales and what they should expect in terms of

earnings and money allotted to community projects. Attached as appendices to these update statements are scans of the relevant portions of the original sale agreements. We provide an example of the statement sent out to the landowners covering the last quarter of 2011, as well as our mailing list to demonstrate our reach. Through this regular communiqué, the ranch owners understand that they are always welcome to air their grievances through our Community Liaison and Carbon Office Manager Offices for further action.

DNV finds the project proponent's policy, especially with the inclusion of their new quarterly newsletter, to better comply with the specifics of an FPIC system with project stakeholders. CL1 is now closed.

CL2: Ensuring open door policy remains intact over time / Communication of this policy

Requirement

"Demonstrate with documented consultations and agreements that the project will not encroach uninvited on private property, community property, or government property and has obtained the free, prior, and informed consent of those whose rights will be affected by the project - per Climate, Community and Biodiversity Project Design Standards (2nd Edition.)

Evidence and Failure

While it was evidenced that free, prior, and informed consent (FPIC) was sought when reaching respective agreements with involved communities and landowners directly affected by the projects, various recent studies (1,2,3) point towards FPIC being regarded as an on-going process rather than a one-time decision, meaning that this consent should not only be monitored into the future, but that it should also have an established grievance and feedback process put in place. While evidence was provided during the site visit showing that Wildlife Works has an "open door" policy with its stakeholders, many landowners were not aware that their grievances, if they were to ever reach such a point, can also be emitted against the project proponents (WWC), be it with local and/or national level authorities.

Clarification

Clarification is requested in identifying if this has ever been explained to the project stakeholders and if not, how it will be communicated to them in the future.

Wildlife Works Clarification

Wildlife Works' open-door policy is always communicated to the project stakeholders through the frequent community barazas (meetings) organized by the Community Liaison office for various goals. In future, we will enhance the grievance airing mechanism at Wildlife Works in two ways. First, in order to ensure that all stakeholders in the project area know and understand about Wildlife Works' open-door policy, we shall:

(i) hold quarterly Locational barazas specifically for providing project updates and providing a forum for airing grievances, and

(ii) have a permanent insert into our quarterly Newsletter informing the readers of this policy and various avenues of airing grievances.

In addition, besides being able to air grievances through the Locational barazas or through the Community Liaison or Carbon Offices, we are in the process of establishing Suggestion Boxes at the Chief's offices in the five locations for persons wishing to remain anonymous. We shall establish an inclusive and transparent mechanism for opening and dealing with any complaints dropped in the boxes. Lastly, Notice Boards are also in the process of being put

up at the Chief's Offices where project updates shall be regularly posted for the entire community's access, because all have free access to the Chief's Office.
DNV finds the project proponent's policy, especially with the inclusion of their new quarterly newsletter, to better comply with the specifics of an FPIC system with project stakeholders.
CL2 is now closed.

CL3: Social Monitoring Plan in 12 months

Requirement

Per the Climate, Community and Biodiversity Project Design Standards (2nd Edition), the project proponents must, "Commit to developing a full (community impact) monitoring plan within six months of the project start date or within twelve months of validation against the Standards and to disseminate this plan and the results of monitoring, ensuring that they are made publicly available on the internet and are communicated to the communities and other stakeholders."

Evidence

While evidence was provided to DNV during the site visit confirming that a comprehensive social monitoring plan was in place and that informative questionnaires were currently being gathered, it was witnessed that the social database was still being developed and that no results had been shared with communities and/or other stakeholders to date.

Clarification

Clarification is being sought in order to understand why the social database was not constructed parallel to the biodiversity database and how and when the results of these will be shared with the relevant community members, project stakeholders, and the general public.

Wildlife Works Clarification

It is correct that the results have not yet been shared with communities and/or other stakeholders. However, a comprehensive social monitoring plan is now in place and detailed questionnaires were administered across the project area in February and March 2012.
Indeed, the social database was constructed in parallel to the biodiversity database, but the process took longer than anticipated, due to the need for extensive community consultations, which were a pre-requisite to formulating the plan. The community had to organize themselves and elect officials into Locational Carbon Committees. These would then be their representatives in the Social Impact Assessment (SIA) workshop to come up with focal social issues to be addressed by the carbon project, and from these select the best indicators to go into the monitoring plan. This process was, to a large extent, out of the hands of the Wildlife Works monitoring team, and could not be rushed because the community had to be fully satisfied with their representatives in order for them to embrace the outcomes of the SIA workshop. Additionally, the SIA process took a bit longer than the biodiversity process because of the need to design the detailed questionnaires, pilot test them, do modifications, and then administering them in sometimes very remote areas.
At present, the social database has been completed and is functional. Data are being entered and will be summarized immediately after. We target end of July to have the SIA plan, questionnaire and preliminary results up online and distributed throughout the project area by our Community Liaison teams. The key results will also be placed into our quarterly newsletter, as well as discussed in specifically organized Focal Group Discussion forums across the five Locations in the project area. On the longer term, we aspire to publish some of these findings on regional and international peer-reviewed journals.

DNV finds the project proponents actions in working towards a robust social impact monitoring system sufficient enough to now comply with the CCB standard guidelines. CL 3 is now closed.

FAR1: WWCT representation

Requirement

"Demonstrate with documented consultations and agreements that the project will not encroach uninvited on private property, community property, or government property and has obtained the free, prior, and informed consent of those whose rights will be affected by the project - per Climate, Community and Biodiversity Project Design Standards (2nd Edition.)

Evidence and Action Request

While it is evident that free, prior, and informed consent (FPIC) was sought when reaching respective agreements with involved communities and landowners directly affected by the projects, various recent studies (1,2,3) point towards FPIC being regarded as an on-going process rather than a one-time decision, meaning that this consent should not only be monitored into the future, but that it should also have an established grievance and feedback mechanism put in place. While on site, DNV learned that it was agreed amongst project proponents and landowners that 5 representatives from the landowners groups were to be incorporated within the Trust created to manage the benefits stemming from the sale of the carbon benefits of the projects. DNV requests that the project proponent submit evidence of the inclusion of these five members into the Trust at the time of the next verification and that at least one of those five members should be a representative of Rukinga Ranch in order to ensure representation for both Phases of the project.

Wildlife Works Response

Originally, the Wildlife Works Carbon Trust was to act as the disbursement mechanism for community dividends from the REDD VER sales, on behalf of WW and other stakeholders. However, several landowners in the project area have articulated the desire for increased visibility in the disbursement mechanism. With this in mind, WWCT are currently in the process of establishing a Disbursement Committee for distribution of the community dividends through projects. Limiting the legal liability of landowners associated with the Trust, while increasing the visibility of the landowners in the distribution of the carbon dividends is the explicit goal of the Disbursement Committee. The Disbursement Committee will function as the public face of the Trust and will be composed of at least 5 members of the Taita Ranchers Association whose land is included in the project area, representatives of WWCT and representatives of the Locational Carbon Committees, all on a rotational basis. The Disbursement Committee will receive pre-approved proposals from the Location Carbon Committees and agree to disburse funding to projects which enhance carbon, community development and biodiversity indicators.

FAR2: SIA Questionnaires Administered by a Single Individual

Requirement

Per the Climate, Community and Biodiversity Project Design Standards (2nd Edition), the project proponents must, "Commit to developing a full (community impact) monitoring plan within six months of the project start date or within twelve months of validation against the Standards and to disseminate this plan and the results of monitoring, ensuring that they are

made publicly available on the internet and are communicated to the communities and other stakeholders."

Evidence and Action Request

While evidence was provided to DNV during the site visit confirming that a comprehensive social monitoring plan was in place and that informative questionnaires were currently being gathered by a part-time-employee of Wildlife Works, DNV requests that the project proponents diversify their questionnaire and social monitoring plan team so as not to rely on any one person to collect social data, for both logistical and social data-gathering methodological issues (i.e. interpersonal conflict with stakeholders, etc.). Evidence of this should be provided during the subsequent verification.

Wildlife Works Response

We do agree with the suggestion to increase the SIA human resource component of the Biodiversity and Social Monitoring Team, so as not to rely on a single person to collect all the social data. This is prudent both for logistical and social data-gathering methodological issues, such as interpersonal conflict with interviewees. This is indeed something that the Wildlife Works management has very recently discussed and laid out initial plans for recruiting another social impact monitoring person on more permanent terms. We shall also diversify the survey teams for our future surveys. Evidence of this shall be provided during the next verification.