



CCB FINAL VALIDATION REPORT

ERA AND WILDLIFE WORKS' MAI NDOMBE REDD PROJECT IN THE DEMOCRATIC REPUBLIC OF CONGO

REPORT No. 2012-9738

REVISION No. 01



CCB PROJECT VALIDATION REPORT

Date of first issue: 6 December, 2012	Project No.: PRJC-407309-2012-CCS-USA
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Det Norske Veritas (U.S.A.), Inc. (DNV) has performed a validation of the “The Mai Ndombe REDD Project” in the Democratic Republic of Congo on the basis of criteria defined by the Climate Community and Biodiversity Alliance (CCBA) second edition and approved Verified Carbon Standard (VCS) methodology, “VM0009 – Methodology for Avoided Mosaic Deforestation of Tropical Forests Version 2.0,” as well as criteria for consistent project operations, monitoring and reporting. This validation report summarizes the findings of the CCBA validation.

The validation consisted of the following three phases: i) a desk review of the project design, the baseline and the monitoring plan, ii) an onsite inspection and follow-up interviews with project stakeholders and the issuance of the finding list, and iii) the resolution of outstanding issues and the issuance of the final validation report and opinion.

The project activity is to leverage carbon finance to avoid mosaic conversion of tropical forests and therefore reduce greenhouse gas emissions. The project employs a Reduced Emissions from Deforestation and Degradation (REDD) project methodology to determine the magnitude of these emissions reductions. Through a combination of forest protection and sustainable development activities, this project is estimated to avoid the emission of 175.8 million tonnes of CO₂e over the project lifetime that would have resulted from deforestation of approximately 50% of the project area over the next thirty years.

In summary, it is DNV’s opinion that the “The Mai Ndombe REDD+ Project” as described in the CCBA Project Document dated 31 October, 2012 meets all relevant CCBA requirements.

Report No.: 2012-9738	Date of this revision: 6 Dec 2012	Rev. No. No. 1	Key words: CCB Project Validation REDD DRC
Report title: CCB Validation Report – The Mai Ndombe REDD Project			<input checked="" type="checkbox"/> No distribution without permission from the Client or responsible organizational unit <input type="checkbox"/> Limited distribution <input type="checkbox"/> Unrestricted distribution
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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
CCBA	Climate Community and Biodiversity Alliance
CDM	Clean Development Mechanism
CL	Clarification Request
CO ₂	Carbon Dioxide
DNA	Designated National Authority
DNV	Det Norske Veritas
DR	Document Review
EB	Executive Board
GHG	Greenhouse Gas(es)
GPG LULUCF	Intergovernmental Panel on Climate Change's Good Practice Guidance for Land-Use Land Use Change and Forestry
GWP	Global warming potential
HCV	High Conservation Value(s)
m	Meters
MED	Methodology Element Documentation
MoV	Means of Verification
PDD	Project Design Document
REDD	Reduced Emissions from Deforestation and Degradation
SCS	Scientific Certification Systems
tCO ₂ e	Tonnes CO ₂ equivalent
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

ERA (Ecosystem Restoration Associates) and Wildlife Works Carbon LLC, from henceforth referred to jointly as the “project proponents”, have commissioned Det Norske Veritas (U.S.A.), Inc. (DNV) to validate the “The Mai Ndombe REDD Project” in the Democratic Republic of Congo (DRC). This report provides a description of the steps involved in conducting the validation and the findings of the validation based on the Climate, Community and Biodiversity Alliance (CCBA) Project Design Standards (Second Edition), as well as criteria for consistent project operations, monitoring and reporting.

The validation team consisted of the following personnel:

<i>Role/Qualification</i>	<i>Last Name</i>	<i>First Name</i>	<i>Country</i>
Project manager / CCBA Validator	Reed	Pablo	USA
CCBA Validator / VCS REDD AFOLU Expert	Aalders	Edwin	USA
Technical reviewer	Kapambwe C.	Misheck	Australia

1.1 Objective

The purpose of a validation is to have an independent third party assess the project design against all criteria set out by the CCBA. Validation is a requirement for all CCBA projects and is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended climate, community, and biodiversity benefits. The final decision on the registration of a proposed project rests with the CCBA.

1.2 Scope and Criteria

The validation scope is defined as an independent and objective review of the CCBA Project Document (CCBA PD). The CCBA PD is reviewed against the criteria stated in the CCB Project Design Standards (Second Edition – December, 2008), and the approved VCS methodology, VM0009 Methodology for Avoided Mosaic Deforestation of Tropical Forests, Version 2.0.

In particular, the project was assessed against the CCB Standards Second Edition 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.

The validation is not meant to provide any consulting for the project participants. However, stated requests for clarifications and/or corrective actions may have provided input for improvement of the project design.

1.3 CCB Project Description

The “Mai Ndombe REDD Project” has been developed by Ecosystem Restoration Associates (ERA) Inc. and Wildlife Works Carbon (WWC) LLC, project proponents based out of British Columbia, Canada; and California, USA, respectively. The project activity is to leverage carbon finance to avoid mosaic conversion of tropical forests and therefore reduce greenhouse gas emissions. The project employs a Reduced Emissions from Deforestation and Degradation (REDD) project methodology to determine the magnitude of these emissions reductions. Through a combination of forest protection and sustainable development activities, this project is estimated to avoid the emission of 175.8 million metric tonnes of CO₂e over the project lifetime that would have resulted from deforestation of the project area over the next thirty years, as well as provide considerable biodiversity conservation and socio-economic benefits to local communities living within and around the project area.

The project proponents, as well as project developers, are both ERA and WWC. However, DNV has confirmed that ERA Congo SPRL, a DRC subsidiary of ERA Ecosystem Restoration Associates Inc. /20/, has the right to all and any greenhouse gas (GHG) reductions generated by the Project during the Project Crediting Period /19/.

The Mai Ndombe REDD project area is located in the central part of the Congo River basin of the Democratic Republic of Congo. Administratively, it is located in the province of Bandundu, District of Lake Mai Ndombe, and the territory of Inongo. The conservation concession covers 299,645 hectares (ha) of terra firma forest (upland non-inundated forests), swamp forest (inundated and seasonally inundated forests), savanna, and inundated grassland. The concession is located approximately 395 km northeast of the national capital, Kinshasa. Land in all of the project accounting areas has qualified as forest, either as defined by FAO 2010, or that of the definition of forest set by the residing national authority (DNA) for the country, for a minimum of 10 years prior to the project start date /1/.

The project has been developed with the aim to qualify as a REDD+ project under both the Verified Carbon Standard and the Climate, Community and Biodiversity Standard. In order to do so, the project applies the Methodology for Avoided Mosaic Deforestation of Tropical Forests (VM0009) version 2.0 over a concession that holds 3.5 million cubic meters of merchantable hardwood eligible for commercial logging operations. The project aims to address the halting of logging and the other leading drivers of deforestation - subsistence agricultural practices, and aggressive fuel wood/charcoal use. In order to do so, the project activities will consist largely of participatory community-based conservation initiatives that will reduce local incentives toward unsustainable land use, with an emphasis on agricultural improvements.

The Mai Ndombe project area is an ecologically rich and diverse one, previously zoned for commercial timber extraction. It is home to Chimpanzees, Bonobos and forest elephants, and includes some of the most important wetlands in the world. It is also home to some 50,000 people, most of whom live on the shores of Lake Mai Ndombe, and along the main roadway leading from the coastal city of Selenge towards the northwest project area boundary. In 2008, following a governmental revision of the DRC National Forest Code, 91 of 156, logging contracts were suspended in an effort to address corruption in the sector. In addition, minimum legal and environmental standards were not being met, which resulted in severe environmental

damage. Furthermore, communities in these areas were largely ignored by the logging companies, and received little or no economic benefit. Two timber concessions extending along the western shore of Lake Mai Ndombe, were among those suspended for review. In February 2010, ERA submitted a formal request to the DRC government to manage these concessions for the purpose of protecting the area from destructive logging practices, both legal and illegal, using carbon revenues to promote sustainable development. In March 2011, a Memorandum of Understanding was signed between the Ministry of Environment, Conservation of Nature, and Tourism (MECNT) and ERA, in which any carbon rights resulting from the development of the project would be assigned to ERA. In August 2011, the two concession contracts were reassigned to ERA via a Forest Conservation Contract /19/ /20/.

The official Project Start Date is the date on which the representative of the Democratic Republic of the Congo signed the official Carbon Rights Agreement with ERA /19/. This document is dated on March 14th, 2011. The project is in line with the VCS Standard version 3.2 /10/ classified as a mega project (>1 000 000 VCUs per year /10/) based on the expected annual VCUs issuance of 5 671 613 VCUs per year. However since the assessment, the VCS has released an updated version of the VCS standard version 3.3 /11/ which changes also the thresholds of the projects meaning so that the project is now classified as a large project (> 300 000 VCUs per year). The project has elected for a 30 year crediting period starting on the 14th of March 2011 and ending on 13th of March 2041. This is in line with the VCS Standard on crediting period where AFOLU projects have a minimum crediting period of 20 year and a maximum crediting period of 100 years. /10/. In line with the methodology, /16/ the baseline of the project is re-evaluated at least once every 10 years.

1.4 Level of Assurance

DNV provides reasonable assurance that the emission reduction estimations for the “Mai Ndombe REDD Project” are conservative and meet the CCB criteria and approved VCS methodology, VM0009 Version 2.0.

To ensure complete transparency, DNV has included any clarification or corrective actions that were raised in this validation report in an appendix found at the end of this report.

2 METHODOLOGY

The validation consisted of the following three phases:

- A desk review of the project design and the baseline and monitoring methodology.
- Site visit and interviews with project stakeholders.
- The resolution of outstanding issues and the issuance of the final validation report and opinion.

The validation process included the following events and activities:

- Opening meeting, introduction and project orientation.
- Desk Review of the project document (PD) and supplemental documentation including data, models, and maps of project zone.
- Site visit from 23 September, 2012 to 1 October 2012. The site visit included:

- Project overview and orientation.
- Interviews with ERA and WWC management.
- Interviews with ERA and WWC employees.
- Interviews with community village chiefs and ruling councils.
- Field tours of local communities.
- Interviews with various community members.
- Tour of local schools.
- Interviews with local school teachers and administrators whenever possible.
- Field tours of the project area.
- Tour of all Project activities.
- Closing meeting and presentation of preliminary findings.
- Review of stakeholder comments.
- Review of collected evidence and supporting documentation.
- Issuance of findings.
- Project proponent responses to findings.
- Preparation of draft report.
- Technical review of draft report.
- Submission of final report to CCBA.

Findings established during the validation can either be seen as a non-fulfilment of validation protocol criteria or where a risk to the fulfilment of project objectives is identified. Corrective Action Requests (CAR) are issued where:

- Mistakes have been made with a direct influence on project results.
- Validation protocol requirements have not been met.
- There is a risk that the project would not be accepted as a VCS or CCBA project or that emission reductions will not be certified.

The term Clarification (CL) may be used where additional information is needed to fully clarify an issue.

<i>Draft report corrective action requests and requests for clarifications</i>	<i>Project participants' response</i>	<i>Final conclusion</i>
<i>If the conclusions from the draft Validation are either a Corrective Action Request or a Clarification Request, these should be listed in this section.</i>	<i>The responses given by the project participants during the communications with the validation team should be summarized in this section.</i>	<i>This section should summarise the validation team's responses and final conclusions. The conclusions should also be included in Table I, under "Final Conclusion."</i>

Figure 1: Validation Protocol Table

2.1 Review of Documents

The project document /44/ dated 31 October, 2012 and previous versions for “Mai Ndombe REDD Project” was submitted by the project proponents along with additional background documents related to the project design and baseline, which were assessed as part of the validation. The project documentation followed the guidance set out in CCB Standard Second Edition, December, 2008.

The following table lists the documentation that was assessed during the validation:

Documents provided that relate directly to the VCS and climate portions of the project:

- /1/ Wildlife Works Department of Carbon Development: VCS PD for project activity “The Mai Ndombe REDD+ Project” in the Democratic Republic of Congo, Version 1.59 dated 12 September 2012 and version 1.63 dated 20 November 2012.
- /2/ Wildlife Works Carbon: Lac Mai Ndombe REDD+Monitoring Plan v1.7, 10 September 2012
- /3/ Wildlife Works Carbon: Image Classification Protocol
- /4/ Wildlife Works Carbon: Standard Operating Procedure (SOP) for Non-Destructive Field Measurements For Calculation of Biomass, Version 1.9, 18 July 2012
- /5/ Wildlife Works Carbon: Standard Operating Procedure (SOP) for Biomass Plot Sampling, Version 2.5, 10 September 2012
- /6/ Wildlife Works Carbon: Standard Operating Procedure (SOP) Field Protocol for Core Soil Sampling, version 1.5, 23 may 2012
- /7/ Wildlife Works Carbon: Standard Operating Procedure (SOP) Quality Control Procedure Lac Mai Ndombe REDD+ Project, Version 1.6, 14 November 2012
- /8/ Wildlife Works Carbon: Standard Operating Procedure (SOP) Laboratory Procedures & Calculations For Determining Tree Biomass, Version 1.0, 29 June 2012
- /9/ Wildlife Works Carbon: Standard Operating Procedure (SOP) Non-Destructive Field Measurements For Calculation of Biomass, Version 1.9, 18 July 2012

Standards, methodologies, and other guidance by the VCSA

- /10/ VCSA: VCS Standard, version 3.2.
- /11/ VCSA: VCS Standard, version 3.3.
- /12/ VCSA: VCS Programme Guideline Version 3.3
- /13/ VCSA: VCS AFOLU Requirements version 3.2
- /14/ VCSA: VCS Non-Permanence Risk Tool version 3.1
- /15/ VCSA: VCS Program Definitions version 3.3
- /16/ VCSA: Methodology “Avoided Mosaic Deforestation of Tropical Forests VM0009”, version 2.0

- /17/ VCSA: Additionality Tool
- /18/ VCSA: VCS Guidance - Validation and Verification Manual Version 3.0, 4 October 2012

Documentation used by DNV to validate / cross-check the information provided by the project participants with regards to the VCS and climate portions of the project.

Annexes to the VCS Project Document

- /19/ Carbon Rights Agreement between the Government of the Democratic Republic of Congo ERA signed on the 14th of March 2011 –*“Avenant N# 01 Au Protocole d’Entente Signee le 14 mars 2011 entre la Republique Democratique du Congo et l Societe Ecosystem Restoration Associates. ”*
- /20/ Forestry Preservation Concession Terms of Reference, 4 March 2011 *“Cahier de charge d’un Contract de Concession Forestiere de Conservation”*
- /21/ Forest Conservation Contract, 30th of July 2011, *“Contrat de Concession Forestiere de Conservation”*
- /22/ Wildlife Works Carbon : Annex C - Tarif de cubage 1.3.xlsx
- /23/ Ministry of Environment: Letter to SOFORAMA accepting concession exchange
- /24/ Annex E - Reference Area Logging Concession Bas-fleuve
- /25/ EcoPartners LLC and Wildlife Works: Annex F- Internal Audit Report *“Lac Mai Ndombe Site Visit”*
- /26/ Ministry of Environment: - Suspension of Bimpe Agro Concessions
- /27/ ERA Congo: Request to Ministry of Environment requesting the rights of the Concession of the Lac Mai Ndombe
- /28/ Assemblée Provinciale du Bandundu: Petition to the Ministry of Environment
- /29/ Agreement for the Management Rights of the Concession of Lac Mai Ndombe, 14 march 2011, *“Protocol d’entente”* du 14 mars 2011
- /30/ Wildlife Works Carbon: Annex N - NER Worksheet 2.13.xlsm
- /31/ Annex O - Data and Parameters Available at Validation v1.4.docx
- /32/ Annex P - Data and Parameters Monitored.docx
- /33/ Annex U - WWC VCS Additionality Tool VT0001.docx
- /34/ Annex V - Non-Permanence Risk Worksheet v1.0.xlsx
- /35/ Annex W - DRC Political Risk.xlsx

Annexes to the VCS Monitoring Report

- /36/ Wildlife Works Carbon: Annex C - Data and Parameters Monitored v1.1
- /37/ Wildlife Works Carbon: Annex D - Development of Lac Mai Ndombe Allometry Version 2.43

- /38/ Wildlife Works Carbon: Annex E - Allometry Sampling Plot List
- /39/ Wildlife Works Carbon: Annex J - Lac Mai Nombe PAA Inventory v2.19.xslm
- /40/ Wildlife Works Carbon: Annex L - Lac Mai Nombe Proxy Inventory v3.0.xslm
- /41/ Wildlife Works Carbon: Annex M - Map of Project Area
- /42/ Wildlife Works Carbon: Annex N - Allometry Sampling Map
- /43/ Wildlife Works Carbon: Annex P - Soil Analysis Results.xlsx

Documents provided that relate directly to the CCBA standard:

- /44/ ERA and Wildlife Works: Project Design Document for the Mai Ndombe REDD+ Project against the CCBA Standard. Version 2 , dated 31 October, 2012
- /45/ ERA and Wildlife Works: Project Monitoring Plan for Climate, Community, and Biodiversity Benefits: Activities Implemented March 14, 2011, through October 31, 2012 for the Mai Ndombe REDD+ Project Version 1, dated 22 October, 2012.
- /46/ ERA and Wildlife Works: Project Implementation Report Climate, Community, and Biodiversity Benefits: Activities Implemented March 14, 2011, through October 31, 2012 for the Mai Ndombe REDD+ Project Version 1, dated 22 October, 2012.
- /47/ ERA and Wildlife Works: Animal Species for the Mai Ndombe REDD+ Project. Version 1, dated 22 October, 2012.
- /48/ ERA and Wildlife Works: Biodiversity Site Report References for the Mai Ndombe REDD+ Project .Version 1, dated 31 May, 2012.
- /49/ ERA and Wildlife Works: Biodiversity Threats for the Mai Ndombe REDD+ Project Version 1, dated 31 May, 2012.
- /50/ ERA and Wildlife Works: Bird Survey for the Mai Ndombe REDD+ Project Version 1, dated 31 May, 2012.
- /51/ ERA and Wildlife Works: Fauna Survey for the Mai Ndombe REDD+ Project Version 1, dated 31 May, 2012.
- /52/ ERA and Wildlife Works: HCV Animal Species for the Mai Ndombe REDD+ Project Version 1, dated 31 May, 2012.
- /53/ ERA and Wildlife Works: Mammal Survey for the Mai Ndombe REDD+ Project Version 1, dated 31 May, 2012.
- /54/ ERA and Wildlife Works: Project Working Plan for the Mai Ndombe REDD+ Project Version 1, dated 31 May, 2012.
- /55/ ERA and Wildlife Works: Biodiversity Description for the Mai Ndombe REDD+ Project .Version 1, dated 31 May, 2012.
- /56/ ERA and Wildlife Works: Site Conservation Value for the Mai Ndombe REDD+ Project.Version 1, dated 31 May, 2012.
- /57/ ERA and Wildlife Works: Without Project Biodiversity Scenario for the Mai Ndombe REDD+ Project .Version 1, dated 31 May, 2012.
- /58/ ERA and Wildlife Works: Animal Enclosures for the Mai Ndombe REDD+ Project. Version 1, dated 21 October, 2012.

- /59/ ERA and Wildlife Works: Animateur Training for the Mai Ndombe REDD+ Project Version 1, dated 21 October, 2012.
- /60/ ERA and Wildlife Works: Document Storage Procedure for the Mai Ndombe REDD+ Project .Version 1, dated 21 October, 2012.
- /61/ ERA and Wildlife Works: Fauna Monitoring Work Plan for the Mai Ndombe REDD+ Project. Version 1, dated 21 October, 2012.
- /62/ ERA and Wildlife Works: Forester Training Guidelines for the Mai Ndombe REDD+ Project. Version 1, dated 21 October, 2012.
- /63/ ERA and Wildlife Works: General Staff Training for the Mai Ndombe REDD+ Project Version 1, dated 21 October, 2012.
- /64/ ERA and Wildlife Works: Grievance Policy for the Mai Ndombe REDD+ Project Version 1, dated 21 October, 2012.
- /65/ ERA and Wildlife Works: Mobile Clinic for the Mai Ndombe REDD+ Project Version 1, dated 21 October, 2012.
- /66/ ERA and Wildlife Works: Project Agro Forestry for the Mai Ndombe REDD+ Project Version 1, dated 21 October, 2012.

2.2 Follow-up Interviews

On 23 – 30 September 2012 DNV visited the different project areas (Reference Area, Project Area) and Kinshasa and performed interviews with project stakeholders. Further interviews were also conducted with project personnel not stationed in the DRC.

Interview Topics

Interviewed Organization	Interview Topics
ERA, WWC	<ul style="list-style-type: none"> ✓ Project start date. ✓ Demonstration of additionality. ✓ Emission reduction estimates. ✓ Monitoring plan. ✓ Baseline determination. ✓ Buffer determination. ✓ Leakage rates. ✓ Resources, training, procedures of management structure. ✓ Project Implementation Plan. ✓ Disbursement structure and plan. ✓ Environmental Monitoring and Impacts. ✓ Biodiversity Monitoring and Impacts. ✓ Land use rights. ✓ Carbon Easements review. ✓ Community Outreach methods. ✓ Procedure for handling conflicts.

ERA, WWC, local stakeholders	<ul style="list-style-type: none"> ✓ Disbursement methods of carbon revenues to affected communities. ✓ Management structure. ✓ History of organization. ✓ Affiliation with WWC/ERA. ✓ Concerns about potential negative impacts. ✓ Purpose and expected benefits. ✓ Method for prioritizing community projects. ✓ Growth plans for respective organizations.
Community members and local stakeholders	<ul style="list-style-type: none"> ✓ Understanding of Carbon Easement. ✓ Free, Prior, and Informed Consent. ✓ Shareholders involvement in project design.

Date	Name	Organization	Topic
/67/ 24-Sept-2012	Emmanuel Kipola – <i>Coordinator Urban and Environment Boma</i>	Ministry of Environment	<ul style="list-style-type: none"> • Concession Rights, • Forestry Legislation, • Logging History and Logging Practices
/68/ 24 to 30 Sept-2012	John Block	ERA – Director of Operations	<ul style="list-style-type: none"> • CCB PD document input
/69/ 24 to 30 Sept-2012	Jennifer Holland	ERA – Operations Manager	<ul style="list-style-type: none"> • Project Design • Environmental & Social aspects of projects
/70/ 24 to 30 Sept-2012	Jeremy Freund	Wildlife Works Carbon (WWC) – Climate Component Lead	<ul style="list-style-type: none"> • Carbon Inventory • Carbon Module • Project Design
/71/ 24 to 30 Sept-2012	Jean-Robert Bwangoy- Bankanza	ERA – Project Director	<ul style="list-style-type: none"> • Carbon Inventory • Project Desgin

						<ul style="list-style-type: none"> • Forestry Practices • Local circumstances
/72/	24 to 30 2012	Sept-	Anne Marie Bwangoy- Bankanza	ERA – Translator Operations Assistant	<ul style="list-style-type: none"> • Operations • Stakeholders 	
/73/	24 to 30 2012	Sept-	Rob Friberg	ERA – Coordinator for CCB PD Development	<ul style="list-style-type: none"> • Project Design • Environmental & Social aspects of projects 	
/74/	24 to 30 2012	Sept-	Henri Bokote	ERA – Managing Director	<ul style="list-style-type: none"> • Operations • Project Design 	
/75/	24 to 30 2012	Sept-	Dodo Kasonge	ERA – Technical Support / GIS	<ul style="list-style-type: none"> • Mapping & GIS 	
/76/	24 to 30 2012	Sept-	Anatole Bokolo	ERA – Technical Support / GIS	<ul style="list-style-type: none"> • Mapping & GIS 	
/77/	24 to 30 2012	Sept-	Donat Koko	ERA – Logistics and Accounting	<ul style="list-style-type: none"> • Operations 	
/78/	24 to 30 2012	Sept-	Jose Ikoko	ERA - Human Resources and Community Relations	<ul style="list-style-type: none"> • Social • Operations 	
/79/	24 to 30 2012	Sept-	Nestor Ndotdo	ERA – Engineer Forestry	<ul style="list-style-type: none"> • Carbon & Biomass Inventory 	
/80/	24 to 30 2012	Sept-	Eddy Mangani	ERA – Forestry Engineer	<ul style="list-style-type: none"> • Carbon & Biomass Inventory 	
/81/	24 to 30 2012	Sept-	Matthieu Bokamba	ERA – Biodiversity Monitoring	<ul style="list-style-type: none"> • Carbon & Biomass Inventory 	
/82/	24 to 30 2012	Sept-	Thomas Bolingo	ERA – Biomass and Biodiversity Monitoring	<ul style="list-style-type: none"> • Carbon & Biomass Inventory 	
/83/	24 to 30 2012	Sept-	Djems Ikeli	ERA – Forest Engineer	<ul style="list-style-type: none"> • Carbon & Biomass Inventory 	
/84/	24 to 30 2012	Sept-	Marylin Elembe	ERA – Animateur	<ul style="list-style-type: none"> • Social and Environmental 	

/85/	24 to 30 Sept-2012	Jerome Lolonga	ERA – Animateur	<ul style="list-style-type: none"> • Capacity building • Social and Environmental • Capacity building
/86/	24 to 30 Sept-2012	Jacques Bongongo	ERA – Animateur	<ul style="list-style-type: none"> • Social and Environmental • Capacity building
/87/	24 to 30 Sept-2012	Gratien Mutiar	ERA – Animateur	<ul style="list-style-type: none"> • Social and Environmental • Capacity building
/88/	24 to 30 Sept-2012	Shako Okoka	ERA – Animateur	<ul style="list-style-type: none"> • Social and Environmental • Capacity building
/89/	24 to 30 Sept-2012	Gauthier Kimpese	ERA – Animateur	<ul style="list-style-type: none"> • Social and Environmental • Capacity building
/90/	24 to 30 Sept-2012	Ghuylain Nshoko	ERA – Animateur	<ul style="list-style-type: none"> • Social and Environmental • Capacity building
/91/	24 to 30 Sept-2012	Evariste Biembe	ERA – Animateur	<ul style="list-style-type: none"> • Social and Environmental • Capacity building
/92/	30-Sept-2012		Ministry of Environment	<ul style="list-style-type: none"> • Concession Rights, • Forestry Legislation, • Logging History and Logging Practices

In addition to the individuals presented in the list above, the audit team conducted interviews with local village chiefs, communities' local development committees, local project animateurs and community members within the following communities, which fall geographically either within or directly adjacent to the project activity zone:

- Mpili
- Nselenge
 - Local Animateurs
 - Mputu Lobali
 - Mputu Mwilondo
 - Lombe Bakongo
- Ksenge
- Mbale
- Ikira (Pygmy Village)

2.3 Resolution of Any Material Discrepancy

To guarantee the transparency of the validation process, the concerns raised by DNV and the response provided by the project proponent and the consultant are documented in a Table of the Validation Protocol in Appendix A.

3 VALIDATION FINDINGS

3.1 G1 – Original Conditions in the Project Area

Within the PD, the project proponents have illustrated with sufficient detail and supporting evidence the original conditions of the project area. DNV was able to verify the original conditions of the project area through document review and interviews. The original conditions of the project area involved the following descriptions:

Project Area Location and Basic Physical Parameters

DNV was able to confirm the project area location and basic physical parameters presented by the project proponents in the PD through on-site inspection, as well as through review of land titling/forest concession/carbon rights documentation /19/ /20/ /21/. Basic descriptions of climate, soil, geographical, and geomorphological conditions present within this section were found to be appropriate for the area, as well as corroborated by peer reviewed literature and sources.

Types and Condition of Vegetation within the Project Area

As is stated in the PD, the project area is 93% forested, with dense semi-deciduous terra firma forest representing half of the total area, and swamp forests representing 45% of the total forested area, or 41% of the project area. This information, as well the respective portions of the PD describing these types of vegetation in more detail, were verified by the DNV audit team through on-site inspection as well as through a review of the peer reviewed literature and outside sources used as evidence for the project proponents' claims. In addition, this was also further corroborated through the remote sensing images presented in both the CCB and VCS PD's.

Boundaries of the Project Area and the Project Zone

The project boundary (accounting area and entire project zone) was confirmed by DNV by reviewing the two documents provided by the project proponents delineating the carbon rights of the area, as well as the jurisdictional areas of the concessions in question /19/ /20/, as well as through on-site inspection.

Current Carbon Stocks in the Project Area

DNV can confirm that Carbon stocks have been estimated using the most recent version of the Verified Carbon Standard (VCS) methodology VM0009, Methodology for Avoided Deforestation. This was verified through a review of the carbon accounting data and parameters gathered during initial inventory /36/.

Description of Communities in the Project Zone

DNV can confirm that the description of the communities living within and around the project zone is accurate. Within the description of the PD, the project proponents provide detailed information, outlining the demographic, ethnic and tribal makeup of the communities, as well as their tribal and administrative organization, and their current socio-economic conditions. DNV can verify that all of the information within these sections is accurate, as this was what was corroborated during the on-site inspection and in interviews with community members, village chiefs, and other local stakeholders.

Current Land Use, Property Rights, and Unresolved Conflicts

DNV can confirm that the project proponents have gone out of their way in order to present a very thorough analysis of the current land use, property rights, and unresolved conflicts present in the project area. Land tenure issues are complicated in the DRC as in much of this region of Africa, and therefore a careful analysis of the following topics was included and discussed at length.

- Land Tenure and Customary Rights in DRC Recent History
 - In order to understand the current situation in the project area, the project proponents had to provide a history of how tenure has developed through recent history. In this respect, this particular section of the PD revolves around legislature dealing with this topic of land tenure, as well as the presence of autochthonous or indigenous communities in the area. DNV was able to corroborate the information presented here through onsite inspection, interviews with local community members, as well as by a review of all the pertinent laws that could affect the project.
- Forest Code, Community Rights, and Forest Concessions
 - Specific attention had to be paid to the forest code, where stipulations directly affecting project activities as well the communities involved, greatly influenced the design and management of the project.
- Forest Titles Recent Conversion Process

- Also important was the recent history involving how ERA Congo was able to obtain the conservation concession. The information provided in the PD can be further corroborated by interviews with project personnel, as well as with local stakeholders, and through provided documentation /19/ /20/.
- Current Project Land Tenure
 - The current land tenure situation also required its own description within this section, as the recent change from the project area being switched from a logging concession into a conservation one has also change the dynamic nature of land tenure in the area to a certain extent. DNV can confirm that the description provided by the project proponents is accurate in this respect, as it was what was witnessed during on-site inspection and interviews with local stakeholders.
- Current Biodiversity in the Project Zone, and Threats To It
 - The condition of the current biodiversity present in the area is one of the goals of the REDD project as a whole. In this respect, a process has already been initiated through the engagement of the Missouri Botanical Garden, who, in conjunction with local DRC affiliates, conducted a coarse-level survey of project area flora and fauna in 2012. The survey results have been verified by DNV /48/ /49/ /50/ /51/ /52/. Threats to the biodiversity (also corroborated by DNV through onsite inspection, interviews, and documentation review /49/) in the area that were identified were the following:
 - Human encroachment and unregulated, unsustainable land use.
 - Commercial exploitation
 - Climate Change
 - Lack of information about the site’s biodiversity
- High Conservation Values Within the Project Zone
 - DNV can verify that the project proponents have correctly identified areas and/or species of high conservation value within their project zone within the respective portion of the PD dealing with this topic. As mentioned earlier, this was done with the help of the Missouri Botanical Gardens and through other information the project proponents have been able to collect from the project area /48/ /49/ /50/ /51/ 52/:

3.2 G2 – Baseline Projections

The baseline projections of net emission reductions are based on the approved VCS methodology VM009, “VM0009 Methodology for Avoided Mosaic Deforestation of Tropical Forests Version 2.0”. The project baseline is constructed according to the approved methodology.

3.2.1 Baseline Scenario

In line with the Methodology for Avoided Mosaic Deforestation of Tropical Forests (VM0009) Version 2 /16/ the project proponent has identified the different agents for deforestation, which can be classified into two groups.

Agent of	Associated	Constraints to agent mobility
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Deforestation	Driver	
SOFORMA	Commercial Logging Company	Primary agent mobility is assumed to be 500-3000km, due to mechanized transport and a vast infrastructure system, as well as the capacity to harness natural infrastructure systems (rivers).
Farmers	Subsistence and small-scale agriculture	Mobility of the secondary agents is typically limited to that which can be traveled on-foot or by crude means of transport (~5-25km) except in the case where trucks or boats are used to transport cash crops to market (~100-500km)

The primary driver is the logging company, who after obtaining a legal concession license, is able to open up the forest to facilitate the extraction of commercial timber due to the increased road network and enhanced motorized traffic. The secondary agents are local communities/farmers who are then able to expand their own penetration range within the area. New settlements are consequently established further way from the traditional access routes (rivers) into the forest area. Since the project area was an eligible logging concession that was logged and could be logged again after a logging moratorium was lifted by the government, the baseline falls under the VCS definition of Avoided Planned Deforestation/Degradation and as it entails commercial logging, the methodology defines that the baseline type is P1.

DNV confirms that the project has correctly applied the baseline identification tool of the VCS methodology used for this project and that P1 is the baseline type, also valid for this project.

3.2.2 Additionality Assessment

In line with the methodology the PD has identified that the most likely land use scenario is the continuation and proliferation of logging activities which had begun under the terms of the logging concession: In this scenario, a cascade of degradation would have been initiated by planned commercial harvest. The logging concession, which applies to the entire project area and was acquired by the project proponent, would have authorized harvest of 5000-6000 hectares per year in this scenario, encompassing most of the primary terra firma forested area over the 25 year period of the logging concession (2011 to 2036). The commercial harvest of merchantable trees would employ new roads and bridges that would serve to significantly increase access to the project area. As a result, secondary agents of deforestation would gain access to the project area and harvest wood for building materials and charcoal production and for preparing land for agricultural production. The end-state land cover in this land use scenario is characterized by nearly complete deforestation.

In order to demonstrate additionality the project uses the VCS Tool for the Demonstration and Assessment of Additionality in VCS Agriculture, Forestry and Other Land Use (AFOLU) Project Activities (Version 3.0).

As a first check, the audit team made sure that the project complied with the applicability conditions in order to use the aforementioned tool. These applicability conditions are as follows:

- a) AFOLU activities the same or similar to the proposed project activity on the land within the proposed project boundary performed with or without being registered as the VCS AFOLU project shall not lead to violation of any applicable law even if the law is not enforced;
- b) The use of this tool to determine additionality requires the baseline methodology to provide for a stepwise approach justifying the determination of the most plausible baseline scenario. Project proponent(s) proposing new baseline methodologies shall ensure consistency between the determination of a baseline scenario and the determination of additionality of a project activity.

DNV can confirm that no similar project, without being registered as a VCS AFOLU project, will lead to violation of any applicable law, even if not enforced. This was further confirmed through interviews conducted with project stakeholders and project personnel during on-site inspection, as well as through an analysis of all applicable laws and a stepwise approach is used in justifying the determination of the most plausible baseline scenario. It was thus determined that the applicability conditions for the employment of the pertinent additionality tool were met.

The tool next requires the project proponents to carry out the following four steps to determine if their project is additional:

- a) STEP 1. Identification of alternative land use scenarios to the AFOLU project activity;
- b) STEP 2. Investment analysis to determine that the proposed project activity is not the most economically or financially attractive of the identified land use scenarios; or
- c) STEP 3. Barriers analysis; and
- d) STEP 4. Common practice analysis.

In line with the methodology and the aforementioned tool, the VCS PD has identified one alternative land use scenario. As mentioned above, this scenario would be the continuation and proliferation of logging activities which had begun under the terms of the logging concession. As part of step 2, the project proponents were able to justify that the costs associated with the VCS AFOLU project demonstrate that the activity produces no financial benefits other than VCS related income /1/. According to the tool in use, these arguments thus also allowed the project proponents to apply a simple cost analysis (Option I) and to conclude that the proposed VCS AFOLU project produces no financial benefits other than VCS related income. This information was confirmed through on-site inspection, interviews with local stakeholders, as well as revision of financial documents provided for by the project proponents in their risk buffer determination / as well as in discussions with a representative of the Ministry of the Environment who acts as Director of the Forest Service in the DRC .

Lastly, as part of the common practice analysis, the project proponents were able to demonstrate that no project or activities similar to those proposed by the REDD+ project have been implemented previously or are currently underway in the region. As mentioned above, this was further corroborated in discussions with the a representative of the Ministry of the Environment who acts as Director of the Forest Service in the DRC. The relevant geographic region chosen for

this analysis was the entire country of the DRC as no activities similar to the activities proposed by this project that are underway in the area of the project. Few efforts have been made in the area to develop ecologically sustainable livelihood alternatives or to improve the management of forests and other common-pool resources. As a result, the area is characterized by low living standards, little infrastructure, and a continued reliance on forest-clearing for subsistence agriculture .

In conclusion, DNV can verify that the project proponents have employed the correct use of the VCS Tool for the Demonstration and Assessment of Additionality in VCS Agriculture, Forestry and Other Land Use (AFOLU) Project Activities (Version 3.0), that they have followed all of its respective steps correctly, and that thus their project can be considered to be additional.

3.2.3 G3 – Project Design and Goals

As is mentioned within the PD, the Mai Ndombe REDD project aims to leverage the financing from the revenues of carbon offset sales to achieve several climate, community, and biodiversity objectives in the project area. Community and biodiversity objectives, along with the corresponding project activities outlined in section G3.2, have been mainly designed to correspond to and address issues identified by project area communities, which DNV has been able to verify through various interviews with community members during on-site inspection, having to do with their well-being, along with their vision and desires for their present and future conditions within their area.

Climate

- Reduce CO₂ emissions from the project area through stopping planned legal, and unplanned illegal logging, charcoal production, and slash and burn agriculture.¹⁵

Community

- Enhance livelihoods and food security for communities in the project area.
- Increase local administrative and governance capacity through support of existing traditional and contemporary governance structures.
- Enhance the sustainable use of natural resources.
- Improve access to, and quality of, health and education.
- Improved access to, and quantity of, potable water.
- Improve community well-being.

Biodiversity

- Retain intact forests and ecosystem integrity at the landscape level.
- Retain and promote recovery of habitat as well as native flora and fauna.
- Retain rare and ecologically valuable species.
- Increase local and outside knowledge of the area's biodiversity values.

Section G3.2 in the PDD describes each project activity area the project proponents are currently or hope to develop adequately. Upon the assessment of on-going and planned project activities during the site visit, it was clear to DNV that these project activities would contribute to the net positive impact of the project. The main project activity areas identified within the PD include:

Agricultural improvement, diversification and economic opportunities, infrastructure development and education, health, community capacity building and social capital, and climate and ecosystem conservation activities. During the audit, a tentative implementation schedule of the various project activities was presented to the audit team. This is a key component for future verifications to ensure that the project activities are moving ahead effectively.

A list of the major risks, both natural and human-induced was identified. The risks identified include civil and political instability, changes in land tenure regimes, illegal activities, and fire, disease, and other natural risks. For each of these risks, the project proponent has outlined mitigation strategies.

The PD demonstrates that the project design includes specific measures to ensure the maintenance and enhancement of high conservation values (HCVs) in the project zone. The measures include improving the proponent's ability to monitor HCV species through local employee scouts, biodiversity transects, environmental education, and through participatory conservation.

Through on-site inspection and various interviews with local stakeholders, DNV can confirm that the Mai Ndombe REDD project has adopted a multiphase approach to stakeholder engagement. It has been designed to ensure that stakeholders are able to impact project design, air grievances, and give or withhold free prior and informed consent to participation in project activities /64/. The stakeholder engagement process has been designed to continue throughout the project lifetime in order to inform all stages of project development. Communities and stakeholders will participate with and provide input to the project monitoring program and the revision of the problem flow and theory of change models to ensure their continued participation as part of an adaptive management approach to project management. This process will form the basis for ongoing adjustment and continual improvement to project activities.

3.3 G4 – Management Capacity and Best Practices

As stated in the PD, the project proponent is ERA–WWC Joint Venture, a joint venture between ERA Ecosystem Restoration Associates Inc. and Wildlife Works Carbon LLC. ERA Ecosystem Restoration Associates Inc. is a wholly owned subsidiary of ERA Carbon Offsets Ltd, a publicly listed British Columbia corporation which trades on the TSX Venture exchange. Wildlife Works Carbon LLC is a limited liability corporation registered in the State of Delaware with offices in Mill Valley, California. The specific responsibility for operations of the Joint Venture lie with a steering committee composed of two members from ERA and two from WWC. These members will be updated periodically. Operations in the DRC are conducted through ERA Congo SPRL, a company incorporated in the laws of the DRC and with a registered office in Kinshasa, DRC. ERA Congo SPRL is wholly owned by ERA Ecosystem Restoration Associates Inc.; it holds contracts related to carbon rights within the project area as well as the two concessions in trust on behalf of the ERA–WWC Joint Venture.

The entire project personnel interviewed seemed well versed and trained in their respective duties. DNV also observed project management staff and their interaction with local community members and noted a high degree of effectiveness in achieving agreements and results. The technical capability of the project was assessed by DNV. It was found that the project developers, combined, have more than a decade of experience implementing sustainable livelihood activities in these regions of Africa.

In addition, DNV was able to prove that that project proponents have in place specific plans for the proper training of employees, as well as how to deal with the training of new staff in those cases where there may be staff turnover /4/ /5/ /6/ /62/ /63/. Within these standard operating procedures, DNV made sure the project proponents stipulations all followed the relevant workers and other relevant laws of the DRC. In addition, in order to obtain the forestry concessions, ERA Congo also had to put in place a series of *cahie de charges*, agreements by which they are also obliged to follow all the country's and regions' relevant laws and stipulations regarding working, hiring, and employment conditions. .

3.4 G5 – Legal Status and Property Ownership

Based on the Carbon Rights Agreement signed on 14th of March 2011/19//21/, Ecosystem Restoration Associates (ERA) holds exclusive rights to sell carbon credits for carbon generated by the project area, contract is effective for 25 years and applies to the 299,640-ha project area. After this period, the contract can be renewed on the terms contained in Article 8 of the Concession Contract /21/. The 25-year contract will be renewed to complete the 30-year project crediting period.

Through extensive interviews with village chiefs, local development committees, stakeholder groups, and individual community members, DNV can confirm that the project proponents have carried out a very thorough, as participative as possible, and wide encompassing process for obtaining the free prior and informed consent of the people directly affected by the project activities. Every person interviewed agreed that they have decided to participate in the project out of their own free will; that they were allowed to arrive at that decision during their own time frame; and through their traditional means of coming to decisions in their communities. What's more, a surprising number of community members were not only aware of FPIC as a process, but were also well aware that it was a universal right that they were entitled to under international agreements. As part of the FPIC process, DNV also had to verify that the project proponents had put in place an appropriate grievance process in order to deal with any situation in which community members may feel uncomfortable moving forward, which it did /64/.

Finally, DNV can also verify that the project complies with all relevant national and local laws and regulations in the region and in the Democratic Republic of the Congo as a whole. What is more, DNV also verified that this also held true for all applicable international treaties and agreements. This was done through a review of a list of all applicable regulatory and administrative legislation provided by the project proponents in the corresponding section of the PD, which DNV found to be complete through confirmation with some of the country's

environmental authorities as well as through a similar study carried out for the VCS portion of the audit.

CL1 – Net Positive Climate Impacts

DNV considered the VCS Standard, VCS AFOLU guidance, VCS approved methodology VM0009, conditions observed during site visitation, and knowledge of other ecosystems and forest projects when judging the appropriateness of the GHG emission reduction calculations of this project. DNV concludes that all significant emission sources are included in project emission calculations. DNV reviewed the calculations in detail and, with the corrections made in response to the CARs, calculations are correctly applied as specified by the VM0009. Factors used in calculations are stated in the project document and are derived from local measurements, VM0009, or widely-referenced public sources. Equations for specifying statistical confidence intervals are specified in VM0009.

Baseline Emissions

In line with the Methodology for Avoided Mosaic Deforestation of Tropical Forests (VM0009) version 2, the project applies the Baseline Emission Model (BEM) and the Soil Emissions Model (SEM) in order to characterize emissions in the baseline scenario. The BEM predicts cumulative emissions from biomass as a result of deforestation and degradation, and includes a linear component for emissions from planned commercial harvest and a logistic component for subsequent degradation. The SEM is based on a logistic model of deforestation and assumes that soil organic carbon begins to decay in the project accounting area when the area is cleared to non-forest.

Calculating Baseline Emissions from Biomass

Cumulative baseline emissions from biomass $E_{B\,BM}^{[m]}$ are estimated using equation [F.19] of the Methodology for Avoided Mosaic Deforestation of Tropical Forests (VM0009) version 2.0:

$$E_{B\,BM}^{[m]} = BEM_{P1} \left(c_{P\,BM}^{[m=0]}, c_{B\,BM}^{[m]}, t^{[m]}, x^{[m]} \right)$$

This estimate employs the Biomass Emissions Model (BEM) for baseline type P1 using equation [F.2] of the Methodology for Avoided Mosaic Deforestation of Tropical Forests (VM0009) version 2.0:

$$\begin{aligned}
 & \frac{BEM_{P1}(c_P, c_B, t, x)}{m(t - t_{PA})} \\
 &= \frac{365(1 + e^{t-t_{SA}-t_{PA}-t_{PAI}})}{365(1 + e^{t-t_{SA}-t_{PA}-t_{PAI}})} \\
 &+ \frac{A_{PAA}(c_P - c_B)e^{t-t_{SA}-t_{PA}-t_{PAI}} + \frac{HA_{P1}(c_P, c_B)t}{t_{PL} - t_{PAI}}}{(1 + e^{t-t_{SA}-t_{PA}-t_{PAI}}) \left[1 + e^{\ln\left(\frac{365A_{PAA}(c_P - c_B)}{m(t_{SA}-t_{PAI})} - 1\right) - \beta(t-t_{SA}-t_{PA}-t_{PAI}) + \theta(x_{SA} - x - x_{PAI})^T} \right]} \\
 &- HA_{P1}(c_P, c_B) \\
 \text{where} \\
 & \frac{HA_{P1}(c_P, c_B)}{m} \\
 &= \frac{365(1 + e^{-t_{SA}-t_{PA}-t_{PAI}})}{365(1 + e^{-t_{SA}-t_{PA}-t_{PAI}})} \\
 &+ \frac{A_{PAA}(c_P - c_B)e^{-t_{SA}-t_{PA}-t_{PAI}}}{(1 + e^{-t_{SA}-t_{PA}-t_{PAI}}) \left[1 + e^{\ln\left(\frac{365A_{PAA}(c_P - c_B)}{m(t_{SA}-t_{PAI})} - 1\right) + \beta(t_{SA} + t_{PA} + t_{PAI}) + \theta(x_{SA} - x - x_{PAI})^T} \right]}
 \end{aligned}$$

Calculating Baseline Emissions from SOC for Types P1 and P2

Cumulative baseline emissions from SOC $E_{B\text{SOC}}^{[m]}$ are estimated using equation [F.25] of the Methodology for Avoided Mosaic Deforestation of Tropical Forests (VM0009) version 2.0:

$$E_{B\text{SOC}}^{[m]} = SEM_P \left(c_{P\text{SOC}}^{[m=0]}, c_{B\text{SOC}}^{[m]}, t^{[m]}, x^{[m]} \right)$$

This estimate employs the Soil Emissions Model (SEM) for baseline type P1 using equation [F.6] of the Methodology for Avoided Mosaic Deforestation of Tropical Forests (VM0009) version 2.0:

$$\begin{aligned}
 SEM_P(c_P, c_B, t, x) \\
 &= \frac{A_{PAA}(c_P - c_B)}{1 + e^{-\alpha - \beta(t + \gamma - t_{PA} - t_{PAI}) - \theta x^T - x_{PAI}}} \left[1 + \frac{1}{1 + e^{-\alpha - \beta(\gamma - t_{PA} - t_{PAI}) - \theta x_0^T - x_{PAI}}} \right] \\
 &- \frac{A_{PAA}(c_P - c_B)}{1 + e^{-\alpha - \beta(\gamma - t_{PA} - t_{PAI}) - \theta x_0^T - x_{PAI}}}
 \end{aligned}$$

Calculating Carbon Not Decayed in DW

Standing and lying dead wood is conservatively excluded and therefore is not included in carbon accounting.

Calculating Carbon Not Decayed in BGB

Carbon not decayed in BGB is estimated using equation [F.10] of the Methodology for Avoided Mosaic Deforestation of Tropical Forests (VM0009) version 2.0:

$$DEM_{DW,BGB} \left(E_{B\Delta}^{[m]}, t, t^{[m-1]}, t^{[m]} \right) = \frac{E_{B\Delta}^{[m]}}{3650(1 + e^{t-365})} \left(3650 + t^{[m]} - t + \frac{t^{[m]} - t^{[m-1]}}{2} \right)$$

The Decay Emissions Model for carbon in dead wood and below-ground biomass are based on the default VCS decay models for these pools.

Calculating Carbon Not Decayed in SOC

Carbon not decayed in BGB is estimated using equation [F.9] of the Methodology for Avoided Mosaic Deforestation of Tropical Forests (VM0009) version 2.0:

$$DEM_{SOC} \left(E_{B\Delta}^{[m]}, t, t^{[m-1]} \right) = E_{B\Delta}^{[m]} - \frac{365E_{B\Delta}^{[m]}}{\lambda_{SOC}(t - t^{[m-1]})} \left[\frac{\lambda_{SOC}(t - t^{[m-1]})}{365} + e^{-\frac{\lambda_{SOC}(t - t^{[m-1]})}{365}} - 1 \right]$$

The Decay Emissions Model for soil carbon uses λ_{SOC} , a parameter that characterizes the decay of soil over time. λ_{SOC} can be determined by one of three ways, as outlined in sections 6.17.1.1, 6.17.1.2 and 6.17.1.3 of the VM0009 methodology version 2.0.

Calculating Cumulative Emissions from AGMT for Type P1

Cumulative emissions from AGMT for Type P1, using equation [F.36] of the Methodology for Avoided Mosaic Deforestation of Tropical Forests (VM0009) version 2.0:

$$E_{B\ AGMT}^{[m]} = BEM_{P1} \left(c_{P\ AGMT}^{[m=0]} + c_{P\ BGMT}^{[m=0]}, c_{B\ AGMT}^{[m]} + c_{B\ BGMT}^{[m]}, t^{[m]}, x^{[m]} \right) \left(1 - \frac{r_{RS}}{1 + r_{RS}} \right)$$

Cumulative emissions include AGMT and BGMT; average carbon stocks are measured for the project accounting area prior first monitoring event as well as in the proxy area.

Determining Carbon Stored in WP

Because logging is included in the baseline scenario, carbon stored in long-lived wood products is considered. The amount of carbon stored in wood products is determined using the baseline equation [C.1] of the Methodology for Avoided Mosaic Deforestation of Tropical Forests (VM0009) version 2.0:

$$C_{B\ WP}^{[m]} = (1 - w) \left(E_{B\ AGMT}^{[m]} \right) \sum_{ty \in \mathcal{J}} p_{ty}^{[m]} l_{ty} (1 - f_{ty})^{95}$$

$C_{B\ WP}^{[m]}$ is represented as CO2e sequestered in long-lived wood products after 100 years.

Project Emissions

Project emissions are calculated in F.40 of the Methodology for Avoided Mosaic Deforestation of Tropical Forests (VM0009) version 2.0:

$$E_{P\Delta}^{[m]} = E_{P\Delta BRN}^{[m]} + A_{PAA} \left(c_P^{[m-1]} - c_P^{[m]} \right) - C_{P\Delta WP}^{[m]}$$

Project emissions are calculated for any monitoring period and are calculated from the events of biomass consumption through forest fire, burning, logging, or other disturbance.

Calculating Emissions from Changes in Project Stocks

Changes in project stocks are calculated as the difference in project stocks in each stratum between the current and prior monitoring periods:

$$A_{PAA} \left(c_P^{[m-1]} - c_P^{[m]} \right)$$

Stocks that are lost to burning, wood products, and leakage are accounted for using the procedures and equations below.

Calculating Emissions from Burning

Biomass burning is not currently a planned project activity. As such it is not included in carbon accounting. However, if future project activities include this pool then project emissions from burning of biomass are calculated using equation [F.41] of the Methodology for Avoided Mosaic Deforestation of Tropical Forests (VM0009) version 2.0:

$$E_{P\Delta BRN}^{[m]} = \left(\frac{44}{12} \right) 0.66 \sum_{b \in \mathcal{W}^{[m]}} r_{CF\ b} B_b^{[m]}$$

Determining Carbon Stored in WP

Project emissions from carbon stored in WP are calculated using equation [C.2] of the Methodology for Avoided Mosaic Deforestation of Tropical Forests (VM0009) version 2.0:

$$C_{P\Delta WP}^{[m]} = (1 - w) \sum_{ty \in \mathcal{T}} C_{P\ ty}^{[m]} l_{ty} (1 - f_{ty})^{95}$$

The GHG Sources Determination

The project is applying the following project boundaries:

Pool	Sources	Inclusion	Justification
CO ₂ (Carbon Dioxide)	Flux in carbon pools	Yes	Major pool considered in the

Pool	Sources	Inclusion	Justification
			project scenario
CH ₄ (Methane)	Burning of biomass	No	Conservatively excluded
N ₂ O (Nitrous Oxide)	Burning of biomass	No	Conservatively excluded

Project Greenhouse Gases Considered

Pool	Required	Included in Project?	Justification
Above-ground merchantable tree	Required	Yes	Major pool considered
Above-ground non-merchantable tree	Required	Yes	Major pool considered
Above-ground non-tree	Optional	No	Conservatively excluded
Below-ground merchantable tree	Optional	Yes	Major pool considered
Below-ground non-merchantable tree	Optional	Yes	Major pool considered
Below-ground non-tree	Optional	No	Conservatively excluded
Litter	No	No	Conservatively excluded
Dead wood	Optional	No	Conservatively excluded
Standing deadwood	Optional	No	Conservatively excluded
Lying deadwood	Optional	No	Conservatively excluded
Soil organic carbon	Optional	Yes	Major pool considered
Wood products	Required	Yes	Major pool considered

Selected Carbon Pools

The Correctness and Transparency of Formulas and Factors Used

The approaches used to estimate emission reductions are described in further detail in the VCS Project Document. DNV can confirm that the approaches conform to the requirements in the VCS approved methodology “VM0009 Methodology for Avoided Mosaic Deforestation of Tropical Forests Version 2.0.”

Estimated Cumulative Project Lifetime Emission Reductions

Based on the calculations above and the module spreadsheet (NER Worksheet 2.13.xlsm) /30/ DNV has been able to confirm that the calculations to determine the baseline emission and the project emissions were transparent and accurate in line with the Methodology for Avoided Mosaic Deforestation of Tropical Forests (VM0009), version 2. The overall emission reductions for the duration of the crediting period can be found in the table below.

Monitoring Period	Date of Monitoring	Estimated baseline emissions or removals (tCO ₂ e)	Estimated leakage emissions (tCO ₂ e)	Estimated net GHG emission reductions or removals (tCO ₂ e)
1	10/31/2012	3,398,286	0	2,548,715
2	10/31/2013	2,819,006	0	2,114,255
3	10/31/2014	3,529,795	0	2,647,346
4	10/31/2015	4,330,794	0	3,248,096
5	10/31/2016	5,279,073	0	4,201,266
6	10/31/2017	6,273,185	0	4,704,889
7	10/31/2018	7,429,948	0	5,572,461
8	10/31/2019	8,524,210	0	6,393,158
9	10/31/2020	9,642,568	0	7,231,926
10	10/31/2021	10,724,028	0	8,817,407
11	10/31/2022	11,486,467	0	8,614,850
12	10/31/2023	12,156,738	0	9,117,553
13	10/31/2024	12,377,577	0	9,283,183
14	10/31/2025	12,683,678	0	9,512,758
15	10/31/2026	13,011,345	0	11,304,342
16	10/31/2027	11,833,474	0	8,875,106
17	10/31/2028	11,439,490	0	8,579,617
18	10/31/2029	10,448,018	0	7,836,014
19	10/31/2030	10,047,330	0	7,535,497
20	10/31/2031	9,413,412	0	9,270,665
21	10/31/2032	7,067,767	0	5,300,825
22	10/31/2033	7,093,658	0	5,320,243
23	10/31/2034	7,062,984	0	5,297,238
24	10/31/2035	5,577,002	0	4,182,751
25	10/31/2036	3,839,613	0	5,473,328
26	10/31/2037	3,567,731	0	2,675,798
27	10/31/2038	3,341,502	0	2,506,127
28	10/31/2039	3,101,996	0	2,326,497
29	10/31/2040	2,978,211	0	2,233,659

30	3/13/2041	443,874	0	3,094,440
	Total	220,922,762	0	175,820,011

Projected Baseline Emissions, Project Emissions and Leakage Emissions for each monitoring period of the Project

3.5 CL2 Offsite Climate Impacts “Leakage”

DNV can confirm that the project proponents have correctly followed the appropriate procedure for measuring leakage outlined within the VCS methodology VM0009. According to the methodology, the following considerations have to be acknowledged:

Estimating Emissions from Activity-Shifting Leakage

DNV found that activity-shifting leakage is not applicable to this project. Although it could be applicable to the secondary agents, since their mobility is in line with their ability to use access roads into the available forest area within the mobility range analysis, it was found that deforestation in the area around the project had already seen a level of conversion to agriculture that reaches the maximum range of the secondary agents, and as such further deforestation as part of leakage would not occur. As a result, DNV can conclude that such activity-shifting leakage can be considered zero.

Determining Emissions from Market-Effects Leakage

In line with the Methodology for Avoided Mosaic Deforestation of Tropical Forests (VM0009) version 2, the project is defined as having a baseline scenario P1, under which market leakage does not have to be applied if the primary agent is known and the project proponent has demonstrated that there is no possibility of that agent to be awarded a further/replacement concession within the national boundary. On the basis that the primary agent SOFORMA already holds significant concessions within the Democratic Republic of Congo that exceed the maximum legal size of concession holdings by one company, the company will not be able to obtain a new concession to replace the production from the project area. Therefore market leakage can thus also be set at zero.

In conclusion, DNV thus finds the leakage assessment to conform to the requirements in the approved methodology, VM0009.

3.6 CL3 – Climate Impact Monitoring

The monitoring plan correctly identifies all the parameters that have to be monitored as defined under the methodology /10/. As required under the methodology, the parameters that are needed for the quantification of the baseline type within the module are measured at the beginning of the project at validation and consequently every 10 years they will be updated by assessing each individual parameter and collecting the respective data needed for the parameters. For project emissions, the parameters are measured on a yearly basis using a sampling plan valid for each of the project areas. However some of the other monitoring activities are being done at different intervals and can be found in the table below.

Activity	Frequency	Method
Forest Patrols and Perimeter Observation	Weekly	Patrol team inspects perimeter of project area
Plot Measurements	Once per year	Sampling teams visit a portion of plots in project, proxy, and leakage areas
Identification of Significant Disturbance	Once every 2-3 years or after major disturbance event	Periodic inspection of aerial imagery or videography, with ground inspection when necessary

In order to undertake the monitoring effectively the project has set up a number of different Standard Operating Procedures (SOPs) which address:

- Non-Destructive Field Measurements For Calculation of Biomass, /4/
- Biomass Plot Sampling, /5/
- Field Protocol for Core Soil Sampling, /6/
- Allometry Biomass Estimation in the Field, /9/
- Tree Biomass Estimate Lab Procedures, /8/
- Quality Control Procedure, /7/

In addition the project uses the different mapping material and supporting tools which facilitate the final calculations and modeling of the project

- Species Allometry
- Allometry Sampling Map
- Allometry Sampling Plot List

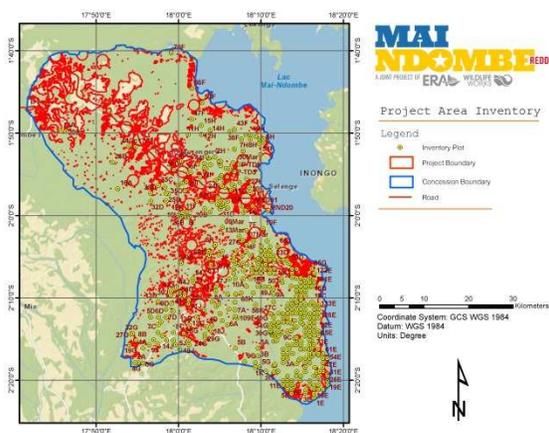


Figure 2: Inventory Plots in Project Area

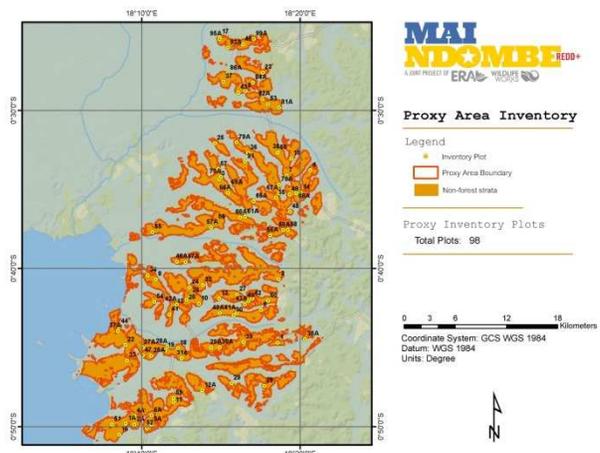


Figure 3: Inventory Plots in Proxy Area

The monitoring plan also includes a sample plan that defines on a yearly sampling of 20% of the total number of sample plot (463) from the initial inventory undertaken in year one of the project, as well as the frequency that disturbances are monitored through aerial imagery.

Year	Remote Sensing Analysis
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Year	Remote Sensing Analysis
2012	In the event of significant potential disturbance
2013	Scheduled analysis
2014	In the event of significant potential disturbance
2015	Scheduled analysis
2016	In the event of significant potential disturbance
2017	Scheduled analysis

Frequency of Disturbance Monitoring

MRR	Requirement	Applicability
MRR.1	A digital (GIS-based) map of the project area with at least the above minimum requirements for delineation of the geographic boundaries.	Applicable
MRR.2	The project start date.	Applicable
MRR.3	The <i>project crediting period start date</i> , end date and length.	Applicable
MRR.4	A list and descriptions of all instances in the group.	Not applicable. Not a group project.
MRR.5	A map of the locations or boundaries of all instances in the group indicating that all instances are in the same region.	Not applicable. Not a group project.
MRR.6	A digital (GIS-based) map of the accounting areas with at least the above minimum requirements for delineation of the geographic boundaries.	Applicable
MRR.7	For each project activity instance in the group, its project activity instance start date.	Not applicable. Not a group project.
MRR.8	For each project accounting area, the value of \hat{t}_{PAI} .	Not applicable. Not a group project.
MRR.9	A table of covariate values as of the project activity instance start dates and a description of how the values were determined including any interpolation or extrapolation methods.	Not applicable. No covariates were used.
MRR.10	Calculations of current baseline emissions $E_{B\Delta}^{[m]}$ as of the current monitoring period.	Applicable
MRR.11	Calculations of baseline emissions $E_{B\Delta}^{[m-1]}$ from prior monitoring periods.	Not applicable. First

MRR	Requirement	Applicability
		monitoring period.
MRR.12	Calculations of cumulative baseline emissions for each selected pool ($E_{B\ BM}^{[m]}$ and $E_{B\ SOC}^{[m]}$) and undecayed carbon ($C_{B\ BGB}^{[m]}$, $C_{B\ DW}^{[m]}$, $C_{B\ SOC}^{[m]}$ and $C_{B\ WFP}^{[m]}$), as of the current monitoring period.	Applicable
MRR.13	Calculations of cumulative baseline emissions from biomass $E_{B\ BM}^{[m]}$ for the current monitoring period.	Applicable
MRR.14	Calculations of cumulative baseline emissions from biomass $E_{B\ BM}^{[m]}$ for all prior monitoring periods.	Not applicable. First monitoring period.
MRR.15	The order of strata from lowest carbon stocks to highest carbon stocks based on the average across all pools.	Not applicable. Not Type U3.
MRR.16	Calculations for each step which are carried through from monitoring period to monitoring period.	Not applicable. Not Type U3.
MRR.17	Calculations of cumulative baseline emissions from biomass $E_{B\ BM}^{[m]}$ for prior monitoring periods.	Not applicable. Not Type U3.
MRR.18	An estimate of current baseline emissions from SOC $E_{B\ \Delta\ SOC}^{[m]}$ as of the current monitoring period.	Applicable
MRR.19	An estimate of cumulative baseline emissions from SOC $E_{B\ SOC}^{[m]}$ for the current monitoring period.	Applicable
MRR.20	Calculations of cumulative baseline emissions from SOC $E_{B\ SOC}^{[m]}$ for all prior monitoring periods.	Not applicable. First monitoring period.
MRR.21	An estimate of current baseline emissions from SOC $E_{B\ \Delta\ SOC}^{[m]}$ as of the current monitoring period.	Not applicable. Not Type U1.
MRR.22	An estimate of cumulative baseline emissions from SOC $E_{B\ SOC}^{[m]}$ for the current monitoring period.	Not applicable. Not Type U1.
MRR.23	Calculations of cumulative baseline emissions from SOC $E_{B\ SOC}^{[m]}$ for all prior monitoring periods.	Not applicable. Not Type U1.

MRR	Requirement	Applicability
MRR.24	An estimate of current baseline emissions from SOC $E_{B \Delta SOC}^{[m]}$ as of the current monitoring period.	Not applicable. Not Type U2 or U3.
MRR.25	An estimate of cumulative baseline emissions from SOC $E_{B SOC}^{[m]}$ for the current monitoring period.	Not applicable. Not Type U2 or U3.
MRR.26	Calculations of cumulative baseline emissions from SOC $E_{B SOC}^{[m]}$ for all prior monitoring periods.	Not applicable. Not Type U2 or U3.
MRR.27	An estimate of carbon stored in non-decayed DW $C_{B DW}^{[m]}$ for the current monitoring period.	Applicable
MRR.28	An estimate of cumulative baseline emissions from DW $E_{B DW}^{[m]}$ for the current monitoring period.	Applicable
MRR.29	An estimate of cumulative baseline emissions from AGMT $E_{B AGMT}^{[m]}$ for the current monitoring period.	Applicable
MRR.30	Calculations of cumulative baseline emissions from DW $E_{B DW}^{[m]}$ for all prior monitoring periods.	Not applicable. First monitoring period.
MRR.31	Calculations of cumulative baseline emissions from AGMT $E_{B AGMT}^{[m]}$ for all prior monitoring periods.	Not applicable. First monitoring period.
MRR.32	An estimate of carbon stored in non-decayed BGB $C_{B BGB}^{[m]}$ for the current monitoring period.	Applicable
MRR.33	An estimate of cumulative baseline emissions from BGB $E_{B BGB}^{[m]}$ for the current monitoring period.	Applicable
MRR.34	Calculations of cumulative baseline emissions from BGB $E_{B BGB}^{[m]}$ for all prior monitoring periods.	Not applicable. First monitoring period.
MRR.35	An estimate of carbon stored in non-decayed SOC $C_{B SOC}^{[m]}$ for the current monitoring period.	Applicable

MRR	Requirement	Applicability
MRR.36	Carbon stored in long-lived wood products $C_{BWP}^{[m]}$ after 100 years.	Applicable
MRR.37	Calculations to determine $C_{BWP}^{[m]}$.	Applicable
MRR.38	A map of the boundaries of any significant disturbance in the project accounting areas during the monitoring period.	Not applicable. No emissions events during monitoring period.
MRR.39	Evidence that plots were installed into these disturbed areas and were measured per section 9.	Not applicable. No emissions events during monitoring period.
MRR.40	A table of events when woody biomass was burned during the monitoring period, showing the weight of woody biomass in tonnes and the date consumed.	Not applicable. No biomass burning or charcoal production in project activities.
MRR.41	Carbon stored in long-lived wood products $C_{P\Delta WP}^{[m]}$ after 100 years.	Not applicable. No harvesting of wood products in project activities.
MRR.42	Scale reports or records of carbon in log production by wood product type $C_{Pty}^{[m]}$.	Not applicable. No harvesting of wood products in project activities.
MRR.43	Calculations to determine $C_{P\Delta WP}^{[m]}$.	Not applicable. No harvesting of wood products in project activities.
MRR.44	A description of project activities that have been implemented since the project start date and the estimated effects of these activities on leakage mitigation.	Not applicable. No leakage.

MRR	Requirement	Applicability
MRR.45	Calculated cumulative emissions from activity-shifting leakage for the current monitoring period $E_{LAS}^{[m]}$ and supporting calculations.	Not applicable. No leakage.
MRR.46	Calculated cumulative emissions from activity-shifting leakage for the prior monitoring periods $E_{LAS}^{[m]}$.	Not applicable. No leakage.
MRR.47	A description and justification of the change to the activity-shifting leakage area.	Not applicable. No leakage.
MRR.48	A map of the delineated boundaries.	Not applicable. No leakage.
MRR.49	Maps of the landscape configuration, including: <ul style="list-style-type: none"> a. Topography (elevation, slope, aspect); b. Recent land use and land cover (either a thematic map created by the project proponent or publicly available map); c. Access points; d. Soil class maps (if available); e. Locations of important markets; f. Locations of important resources like waterways or roads; and g. Land ownership/tenure boundaries. 	Not applicable. No leakage.
MRR.50	A narrative describing the rationale for selection of activity-shifting leakage area boundaries. If the activity-shifting leakage area is smaller than the project accounting area or cannot be defined, justification for the size of the area.	Not applicable. No leakage.
MRR.51	Results of a spatial analysis to demonstrate the activity-shifting leakage area is entirely forested as of the project start date.	Not applicable. No leakage.
MRR.52	Results of a spatial analysis to demonstrate the activity-shifting leakage area is no larger than the project accounting area.	Not applicable. No leakage.
MRR.53	The estimated value $\hat{p}_{LDEG}^{[m]}$ for the current monitoring period and supporting calculations.	Not applicable. No leakage.
MRR.54	The calculated value $\hat{p}_{LDEG}^{[m=0]}$ calculated for the first monitoring period.	Not applicable. No leakage.
MRR.55	Estimated cumulative emissions from market-effects leakage for the current monitoring period $E_{LME}^{[m]}$ and supporting calculations.	Not applicable. No leakage.
MRR.56	Calculated cumulative emissions from market-effects leakage for the	Not

MRR	Requirement	Applicability
	prior monitoring periods $E_{LME}^{[m]}$.	applicable. No leakage.
MRR.57	Provide evidence in the form of GIS imagery, PRA evidence, or the baseline operator's management plan that management plans or land-use designations have not changed in the baseline operator's other lands.	Not applicable. No leakage.
MRR.58	Quantified GERs for the current monitoring period including references to calculations.	Applicable
MRR.59	Quantified GERs for the prior monitoring period.	Not applicable. First monitoring period.
MRR.60	A graph of GERs by monitoring period for all monitoring periods to date	Applicable
MRR.61	The confidence deduction $E_U^{[m]}$ and estimated standard errors used to determine the confidence deduction.	Applicable
MRR.62	Reference to calculations used to determine the confidence deduction.	Applicable
MRR.63	The linear model used to generate GERs for the current monitoring period.	Not applicable. Linear model not selected.
MRR.64	A graph of GERs from the linear model by monitoring period for all monitoring periods to date that used a linear model.	Not applicable. Linear model not selected.
MRR.65	A description of the reversal including which pools contributed to the reversal and reasons for its occurrence.	Not applicable. No reversal.
MRR.66	A description of the reversal including a summary of new data obtained in the reference area.	Not applicable. No reversal.
MRR.67	Quantified NERs for the current monitoring period including references to calculations.	Applicable
MRR.68	Quantified NERs for the prior monitoring period.	Not applicable. First monitoring period.
MRR.69	A graph of NERs by monitoring period for all monitoring periods to date.	Applicable
MRR.70	Reference to the VCS requirements used to determine the buffer	Applicable

MRR	Requirement	Applicability
	account allocation.	
MRR.71	Reference to calculations used to determine the buffer account allocation.	Applicable
MRR.72	Quantified NERs for the current monitoring period including references to calculations.	Not applicable. Only one project accounting area.
MRR.73	Quantified NERs for the prior monitoring period.	Not applicable. Only one project accounting area.
MRR.74	A graph of NERs by monitoring period for all monitoring periods to date.	Not applicable. Only one project accounting area.
MRR.75	Quantified NERs by vintage year for the current monitoring period including references to calculations.	Applicable
MRR.76	Comparison of NERs presented for verification relative to NERs from <i>ex-ante</i> estimates.	Not applicable. First monitoring period.
MRR.77	Description of the cause and effect of deviations from <i>ex-ante</i> estimates.	Not applicable. First monitoring period.
MRR.78	List of parameters from Appendix H, their values and the time last measured.	Applicable
MRR.79	Quality assurance and quality control measures employed for each.	Applicable
MRR.80	Description of the accuracy of each.	Applicable
MRR.81	Documentation of training for field crews.	Applicable
MRR.82	If included in project activities, a description of procedures used to estimate the rate of biomass burning and charcoal production and demonstration that these estimates are conservative.	Not applicable. No biomass burning or charcoal production in project

MRR	Requirement	Applicability
		activities.
MRR.83	Documentation of data quality assessment such as a check cruise and plots of the data such as diameter distributions by strata or plot.	Applicable
MRR.84	Maps of a stratification (if any) and references to plot allocation.	Applicable
MRR.85	List of plot GPS coordinates.	Applicable
MRR.86	Description of plot size and layout (such as the use of nests and their sizes) for each carbon pool.	Applicable
MRR.87	If applicable, a detailed description of the process used to develop allometric equations, to include: a) Sample size b) Distribution (e.g. diameter) of the sample c) Model fitting procedure d) Model selection	Applicable
MRR.88	The estimated carbon stock, standard error of the total for each stock, and the sample size for each stratum in the area selected.	Applicable
MRR.89	Log export monitoring records and standard operating procedure in the project area, if there is commercial harvest in the project scenario.	Not applicable
MRR.90	Deviations from the measurement methods set out in Appendix B, per current VCS requirement.	Applicable
MRR.91	The frequency of monitoring for each plot for all plots – all plots should be measured for the first verification. All leakage plots should be measured every verification, and all proxy and project accounting area plots at least every 5-10 years, or after a significant event that changes stocks.	Applicable
MRR.92	A list of all selected allometric equations used to estimate biomass for trees and non-trees.	Applicable
MRR.93	For each selected allometric equation, a list of species to which it being applied and the proportion of the total carbon stocks predicted by the equation.	Applicable
MRR.94	For each selected allometric equation, indication of when it was first employed to estimate carbon stocks in the project area (monitoring period number and year of monitoring event).	Applicable
MRR.95	For each selected allometric equation, indication of whether was validated per sections 9.3.1.1 or 9.3.1.2.	Applicable
MRR.96	Documentation of the source of each selected allometric equation and justification for their applicability to the project area considering climatic, edaphic, geographical and taxonomic similarities between the project location and the location in which the equation was derived.	Applicable
MRR.97	A list of allometric equations validated by destructive sampling.	Applicable
MRR.98	For each, the number of trees (or non-trees) destructively sampled and the location where the measurement were made relative to the project area.	Applicable
MRR.99	A field protocol used to measure destructively sampled trees (or non-trees).	Applicable

MRR	Requirement	Applicability
MRR.10 0	Justification that the field protocol for the destructive measurement method is conservatively estimates biomass.	Applicable
MRR.10 1	For each allometric equation in the list, a figure showing all the descriptive measurements of biomass compared to predicted values from its selected allometric equation.	Applicable
MRR.10 2	A list of allometric equations cross validated.	Applicable
MRR.10 3	For each, the number of trees (or non-trees) destructively sampled to build the equation and the location where the measurement were made relative to the project area.	Applicable
MRR.10 4	A field protocol used to measure trees (or non-trees) when developing the equation.	Applicable
MRR.10 5	Justification that the field protocol for the measurement method to build the equation conservatively estimates biomass.	Applicable
MRR.10 6	For each allometric equation in the list, the value of \bar{E} .	Applicable

VM0009 - Monitoring Report Requirements

The parameters being monitored were discussed with the project proponent. The project proponent has developed sufficient guidance for image classification and monitoring carbon in soils and biomass in order to ensure that reliable field data is collected.

The frequency of the data collection depends on the specific parameter included in the monitoring plan. DNV found that these are in line with the requirements of the methodology, VM0009.

3.7 CM1 – Net Positive Community Impacts

The project proponents have outlined within the PD the net positive impacts that the project has and will continue to have on local communities. During the site visit, DNV assessed the ongoing and possible future impacts of project activities to local communities and found that the assertions made within the PD are accurate and that the project proponents will deliver significant and measureable benefits back to the community.

DNV can confirm the above statement through the verification that the project proponents did in fact consult directly with local communities in their elaboration of desirable impacts stemming from project activities. This verification was done through on-site interviews as well as by reviewing the results of the participatory rural appraisals carried out by project personnel with local communities. In addition, stakeholders undertook discussions with the project management in order to determine options for compensation stemming from the benefits of the REDD+ project.

As outlined within the PD, the project proponents have chosen to use the theory of change method, also known as the casual model (Richards and Panfil 2011), in order to estimate the impacts of project activities on the community. This method was thus applied to each of the main activity areas described earlier in section 3.2.3. As far as minimizing the risk of negative impacts, the project proponents have also laid out a series of activities to mitigate such risks and which can be found in the appropriate section of the PD.

DNV found no evidence from interviews with community members or other stakeholders to conclude that any harm was or could be brought to areas that provide basic ecosystem services in critical situations, areas that are fundamental to meeting the basic needs of local communities, and or areas that are critical for the traditional cultural identity of communities. In fact, because of the conservation focus of the project, everyone interviewed believed that these high conservation valued areas would only benefit from project activities.

3.8 CM2 – Offsite Stakeholder Impacts

Although it is unlikely, the project proponents did manage to identify several potential net negative offsite stakeholder impacts. These include the change in volume of resources extracted from the project area that may result in reduced employment or access to these resources outside of the project area, and competition due to increased quality and/or quantity of agricultural products being exported from the project area.

To mitigate such potential negative impacts, the project proponents have outlined that future project activities that focus on agricultural improvements and sustainable job creation are expected to offset this first negative impact by increasing export and trade of agricultural and other products. They also point out that in addition, the project has already hired over 66 full-time and 30 casual employees to undertake project operations, and these positions and activities have their own positive multiplier effects. As for the second potential negative impact, the project proponents also claim that agricultural intensification and diversification activities would also be applicable outside the project area and therefore may also serve as benefit to offsite stakeholders. DNV found both the list of potential negative impacts as well as their mitigation plans appropriate for the situation at hand and witnessed during onsite inspection.

DNV also would agree with the project proponent's claim that the project is not likely to result in any net negative impacts on the well-being of other stakeholder groups.

3.9 CM3 – Community Impact Monitoring

As already mentioned in section 3.7 of this report, the selection of community variables to be monitored by the project proponents will be chosen using the theory of change method. DNV has confirmed that the project proponents have plans to ensure that project monitoring and reporting continues in subsequent years, guided by community input from the newly formed community development committees and other project stakeholders, which will be incorporated into the monitoring plan in order to insure that project objectives, activities, and their expected impacts

are being achieved and monitored appropriately. Community impact monitoring will be undertaken during each verification period, which is expected to occur annually.

DNV can also confirm that the high conservation value areas, as discussed in section 3.7, are expected to be positively impacted by the conversion of the concession from logging to conservation. No negative impacts are anticipated as long as the concession continues to be managed by the project participants; therefore, no additional monitoring outside of this allocation will be needed. DNV has also confirmed that the Mai Ndombe project will disseminate a monitoring plan and the results of the same within 12 months of validation.

3.10 .B1 – Net Positive Biodiversity Impacts

As with other monitoring techniques and impacts described earlier in this report, changes to biodiversity as a result of the project have been estimated using the theory of change method. DNV can confirm that the theory of change process in this respect provides a structured, cause-and-effects oriented and reasonable approach to estimating how project activities will result in specific outputs, which lead in turn to outcomes and subsequent long-term impacts. Typical to many conservation projects, there is the possibility that negative, and/or unforeseen impacts may occur. DNV reviewed alongside the Mai Ndombe project team the full range of potential negative impacts they have identified that may arise from the project activity and found these to be credible. These possible impacts were found to be generally related to negative changes in socioeconomic conditions, for example, reduced availability of land for agricultural activities and reduced availability of timber and non-timber forest products. However, DNV can confirm that due to the Mai Ndombe project's conservation focus, there will be limited if any net negative changes to biodiversity that may result from project activities, but that nonetheless, the project proponents are committed to assessing for the occurrence of potential negative or unforeseen impacts to biodiversity, and have incorporated strategies to detect them into their initial monitoring planning /54/.

During the site visit, the project proponent provided its datasheets and survey results showing evidence of the methodologies used to monitor biodiversity changes within the project area /48/ /49/ /50/ /51/ /52/ 53/. The audit team also assessed the biodiversity data collection techniques and analysis during the site visit. Implementing a recommendation made resulting from an observation from the audit team, new biodiversity transects will not be cleared and blazed as these could in fact encourage further hunting and poaching in these areas. Therefore only existing hunting trails and areas will be utilized whenever possible. The estimation methods used are considered to be reasonable.

As mentioned earlier, the project proponents clearly state within the PD that there will not be any negative impacts on the HCVs as their mission and day-to-day activities are to conserve such areas. The audit team was able to confirm this during the on-site assessment of the project activities being implemented. In addition, the PD correctly states that because the project is essentially a conservation project, new species are not being introduced to the project area. The project proponents also clearly state that no genetically modified organisms (GMOs) are being used.

3.11 B2 – Offsite Biodiversity Impacts

The project proponent states that the activities undertaken due to the project will result in no offsite negative impact on biodiversity. Following the site visit to the project site, the audit team was able to confirm that the project will not result in any potential negative offsite biodiversity impacts. In fact, as a result of the protection of corridors and patches of forest, it is expected that the increased connectivity of the project zone will have offsite positive biodiversity impacts due to the project activities.

3.12 B3 - Biodiversity Impact Monitoring

According to the PD, biodiversity variables for monitoring will be selected based on input from communities, stakeholders, and relevant experts, such as the aforementioned Missouri Botanical Garden and affiliated local DRC wildlife experts. Likewise, indicators that are relevant to measuring the effectiveness of efforts to maintain or enhance HCVs will also be selected based on input from communities and experts, and that this monitoring will take place at the same frequency as monitoring for general biodiversity variables. DNV was able to verify these claims through interviews with project personnel, as well as through a review of the project proponent's initial plans for developing their grander monitoring plans /54/.

As before, DNV has also confirmed that the Mai Ndombe project will disseminate a monitoring plan and the results of the same within 12 months of validation.

GL1 – Climate Change Adaptation Benefits

The PD identifies risks to the project's climate, community and biodiversity benefits resulting from likely climate change and climate variability impacts. Risks include variability of available rainfall, increased drought periods through the year, more powerful wind and other natural risk events, and an increase in Lake Mai Ndombe's air and lake water temperatures as a result of increased annual mean surface air temperature, which could in turn harm an important food source for communities. DNV found these risks to be reasonable given the likely climate change impacts for the area as well as local land-use.

As the PD states and as assessed during the site visit, the project proponent demonstrates that the project activities will assist communities and biodiversity in adapting to the probable impacts of climate change. This is achieved by creating alternative livelihoods to subsistence farming, protection of wildlife from poachers, a program to improve fisheries enhancement measures, and the improved efficiency of agriculture production through the improvement of agricultural and agro-forestry methods. A more detailed list of mitigation measures can be found in section GL1.4 of the PD.

3.13 GL2 – Exceptional Community Benefits

The project proponents have elected not to pursue these optional Gold Level criteria.

3.14 GL3 – Exceptional Biodiversity Benefits

According to the PD and referenced peer-reviewed literature, The Lac Tumba–Lac Mai Ndombe region (ca. 78.972 km²) supports a significant population of Bonobos (*Pan paniscus*). DNV can confirm that Bonobos are shown as endangered on the IUCN Red List of Threatened Species and likely number less than 50,000 individuals, living only in the DRC. The project site contains areas with regular occurrence of Bonobos, as demonstrated by local knowledge and recent biodiversity surveys /51/. Habitat provided for the Bonobos by the project site consists of mature uplands forest and swamp forest. By protecting these habitats, DNV can confirm that the Mai Ndombe REDD project provides a clear positive benefit for this endangered species.

The information provided by the project proponent meets GL 3.1.1. and thus qualifies under this criterion.

4 CCB VALIDATION CONCLUSION

Det Norske Veritas (U.S.A.), Inc. (DNV) has performed a validation of the “Mai Ndombe REDD+ project” in the DRC on the basis of CCBA Climate, Community, and Biodiversity Project Design Standards (Second Edition), at the Gold level.

The project proponents are Ecosystem Restoration Associates and Wildlife Works Carbon. DNV has confirmed that the project proponents have the right to all and any reductions generated by the Project.

The review of the project design documentation and the subsequent follow-up interviews have provided DNV with sufficient evidence to determine the fulfilment of stated criteria.

The project correctly applies the approved VCS methodology element VM0009, “Methodology for Avoided Mosaic Deforestation of Tropical Forests Version 2.0” for the quantification of GHG emissions reductions and monitoring of leakage.

The project activity is to leverage carbon finance to avoid mosaic conversion of tropical forests and therefore reduce greenhouse gas emissions. The project employs a Reduced Emissions from Deforestation and Degradation (REDD) project methodology to determine the magnitude of these emissions reductions. Through a combination of forest protection and sustainable development activities, this project is estimated to avoid the emission of 175.8 million tonnes of CO₂e over the project lifetime that would have resulted from deforestation of approximately 50% of the project area over the next thirty years.

Adequate training and monitoring procedures have been implemented to monitor how climate, community, and biodiversity are affected by the project activities.

In summary, it is DNV’s opinion that the “Mai Ndombe REDD+ project” in the DRC as described in the CCBA PD of 31 October, 2012, meets all relevant CCBA requirements, as well as the Climate Change Adaptation and Exceptional Biodiversity Benefits at the Gold level.

5 CCBA COMPLIANCE CHECKLIST – THE MAI NDOMBE REDD PROJECT

General Section

		<i>Conformance</i>	
G1. Original Conditions in the Project Area (Required)	Yes	<input checked="" type="checkbox"/>	No <input type="checkbox"/>
G2. Baseline Projects (Required)	Yes	<input checked="" type="checkbox"/>	No <input type="checkbox"/>
G3. Project Design and Goals (Required)	Yes	<input checked="" type="checkbox"/>	No <input type="checkbox"/>
G4. Management Capacity and Best Practices (Required)	Yes	<input checked="" type="checkbox"/>	No <input type="checkbox"/>
G5. Legal Status and Property Rights (Required)	Yes	<input checked="" type="checkbox"/>	No <input type="checkbox"/>

Climate Section

CL1. Net Positive Climate Impacts (Required)	Yes	<input checked="" type="checkbox"/>	No <input type="checkbox"/>
CL2. Offsite Climate Impacts (“Leakage”) (Required)	Yes	<input checked="" type="checkbox"/>	No <input type="checkbox"/>
CL3. Climate Impact Monitoring (Required)	Yes	<input checked="" type="checkbox"/>	No <input type="checkbox"/>

Community Section

CM1. Net Positive Community Impacts (Required)	Yes	<input checked="" type="checkbox"/>	No <input type="checkbox"/>
CM2. Offsite Community Impacts (Required)	Yes	<input checked="" type="checkbox"/>	No <input type="checkbox"/>
CM3. Community Impact Monitoring (Required)	Yes	<input checked="" type="checkbox"/>	No <input type="checkbox"/>

Biodiversity Section

B1. Net Positive Biodiversity Impacts (Required)	Yes	<input checked="" type="checkbox"/>	No <input type="checkbox"/>
B2. Offsite Biodiversity Impacts (Required)	Yes	<input checked="" type="checkbox"/>	No <input type="checkbox"/>
B3. Biodiversity Impact Monitoring (Required)	Yes	<input checked="" type="checkbox"/>	No <input type="checkbox"/>

Gold Section

GL1. Climate Change Adaptation Benefits (Optional)	Yes	<input checked="" type="checkbox"/>	No <input type="checkbox"/>
GL2. Exceptional Community Benefits (Optional)	Yes	<input type="checkbox"/>	No <input checked="" type="checkbox"/>
CL 3. Exceptional Biodiversity Benefits (Optional)	Yes	<input checked="" type="checkbox"/>	No <input type="checkbox"/>

CCBA Validation Level Attained:

Approved (all requirements met)	<input type="checkbox"/>
Gold (all requirements and also at least one optional Gold Level criterion met)	<input checked="" type="checkbox"/>

APPENDIX A

CORRECTIVE ACTION REQUESTS, CLARIFICATION REQUESTS AND FORWARD ACTION REQUESTS

Table Resolution of Corrective Action and Clarification Requests

CAR ID	Corrective action request	Response by project proponents	DNV's assessment of response by project proponents
CAR1	<p>Requirement The project proponents must.... “Identify likely natural and human-induced risks to the expected climate, community and biodiversity benefits during the project lifetime and outline measures adopted to mitigate these risks”, per Climate, Community and Biodiversity Project Design Standards (2nd Edition.)</p> <p>Evidence and Failure According to onsite observations during the site visit portion of the audit, along with interviews with locals and project personnel conducted during the same, during this time, it became quite clear to DNV that the opening up of monitoring transects (especially those used for the monitoring of fauna), may in fact actually facilitate further hunting in some of the project areas. Despite the presence and knowledge of this risk, it has not been identified within any of the project documentation, nor has a plan on how the project proponents plan to mitigate this risk, been included in any of the project documentation.</p>	<p>A modification to the Fauna SOP has been made that eliminates the use of a machete, thus removing the need to mitigate for this risk. This revised SOP has been submitted to auditors.</p> <p>In addition to providing notice of the above amendment, the project proponent would like to draw attention to a second type of transect described in the SOP (section 4.1.2) for fauna data collection in the project area. This type of data collection, described as recces (reconnaissance routes), follow existing human or animal paths and do not change the accessibility of access to the forest in any way.</p>	<p>The audit team has been able to review the revised SOP, as well recheck the information provided for by the project proponents in response to this finding. Based on the evidence received and on the specifics of the response, DNV can now satisfactorily close this finding. CAR1 is closed.</p>

CAR ID	Corrective action request	Response by project proponents	DNV's assessment of response by project proponents
CAR2	<p>Requirement The project proponents must, “Formalize a clear process for handling unresolved conflicts and grievances that arise during project planning and implementation. The project design must include a process for hearing, responding to and resolving community and other stakeholder grievances within a reasonable time period. This grievance process must be publicized to communities and other stakeholders and must be managed by a third party or mediator to prevent any conflict of interest. Project management must attempt to resolve all reasonable grievances raised, and provide a written response to grievances within 30 days. Grievances and project responses must be documented; per Climate, Community and Biodiversity Project Design Standards (2nd Edition.)</p> <p>Evidence and Failure Stemming from information received during interviews with the project proponents during the on-site visit, DNV came to realize that specific legal requirements dealing with the</p>	<p>A DRC government decree, N°103/CAB/MIN/ECN-T/15/JEB/09, regulates handling and resolution of conflicts and grievances between the project proponent and local communities and other groups located inside of the forest concession or in the neighbourhood. It establishes a Committee for handling conflicts and grievances. The Committee is composed of the Territory Commissioner (President), Territory Supervisor for the Ministry of the Environment, one representative from the forest industry sector and from each group with a grievance, a representative from the Ministry of Land and a representative from the Ministry of Land Management (Public Work). The regulation from the above mentioned decree will be included in a revised grievance policy which will be submitted to the auditors as well as disseminated to project stakeholders.</p>	<p>Upon review of the information now present in the updated grievance policy submitted by the project proponents, the audit team can now successfully bring this finding to a close. CAR2 is closed. .</p>

CAR ID	Corrective action request	Response by project proponents	DNV's assessment of response by project proponents
	<p>involvement of mediators or a third party during the handling of grievances or concerns was not mentioned within the proponent's official policy for handling such processes. These stipulations should also be included when this grievance process is made public and available to all project stakeholders.</p>		
<p>CAR 3</p>	<p>Requirement The project proponents must... "Include a plan to provide orientation and training for the project's employees and relevant people from the communities with an objective of building locally useful skills and knowledge to increase local participation in project implementation. These capacity building efforts should target a wide range of people in the communities, including minority and underrepresented groups. Identify how training will be passed on to new workers when there is staff turnover, so that local capacity will not be lost", per Climate, Community and Biodiversity Project Design Standards (2nd Edition.) Evidence and Failure While a verbal description of the</p>	<p>The project proponent (ERA Congo) is legally registered with the National Institute for Professional Preparation that organizes training for employees. ERA will follow the INPP training schedules for employees. ERA also has a training program through partnerships with universities for forester training. To date one student forester has been trained in forest inventory. The project proponent also has a retainer agreement with a lawyer in Kinshasa to provide training to staff in environmental policy on an as needed basis. Training is also provided to staff in Kinshasa on an as needed basis in accounting, bookkeeping and general office procedures. For employees based in the project zone ERA has also provided training for 10 animateurs and 5 foresters. This included community engagement and socio-economic initiative related training for the</p>	<p>Upon review of the information provided for by the project proponents, as well as the respective SOP describing the training and operating procedures for new and current employees, the audit team can now verify that the project proponents now have a comprehensive plan to provide orientation and training for the project's employees and relevant people from the communities with an objective of building locally useful skills and knowledge to increase local participation, as well as a plan on how training will be passed on to new workers when there is staff turnover. CAR 3 is now closed.</p>

CAR ID	Corrective action request	Response by project proponents	DNV's assessment of response by project proponents
	<p>process of training project staff was made available to the DNV during the site visit, in addition to the one present within project documentation, there is currently no set plan or mention of how training will be passed on to new workers when there is staff turnover, which should be a critical component of an effective management and contingency strategy.</p>	<p>animateurs, including two training events held outside of the project area (Kinshasa and Boma) prior to starting work in the project area and one on site specific training session upon the start of their work in the project area. Training for animateurs hired in the future as a result of staff turnover will be provided similar orientation to their work and the project by the current animateurs and the Operations Manager and will be partnered with the most experienced and knowledgeable animateurs during the initial period of their employment.</p> <p>Foresters employed by the project proponent in the project area who previously worked for logging companies underwent training in specific carbon inventory techniques including forest plot design and measurement and soil collection. In both cases, Standard Operating Procedures were used for guidance. When two additional foresters were needed and hired after the start of the project, previously trained foresters were used to train their new colleagues and a student forester from the University of Kinshasa.</p> <p>Standard Operating Procedures covering the training of the above mentioned areas of expertise as well as general staff will be</p>	

CAR ID	Corrective action request	Response by project proponents	DNV's assessment of response by project proponents
		submitted to the auditors.	
CAR 4	<p>Requirement The project proponents must.... “Show that people from the communities will be given an equal opportunity to fill all employment positions (including management) if the job requirements are met. Project proponents must explain how employees will be selected for positions and where relevant, must indicate how local community members, including women and other potentially underrepresented groups, will be given a fair chance to fill positions for which they can be trained”, per Climate, Community and Biodiversity Project Design Standards (2nd Edition.)</p> <p>Evidence and Failure Through on-site inspection, interviews, and review of project documentation, DNV was made aware of an article within the “Cahier de Charge” which would seem to limit the possibility of the project proponents from being complete equal opportunity employers and instead would require them to favor local prospects over others. However, this stipulation is currently not mentioned</p>	<p>ERA-Congo is committed to hiring the best candidate possible regardless of gender, race or religious belief. However, according to the Forest Code and its associated decrees, when job candidates are equal in qualification, experience and test scores, local candidates will be given preference in filling positions. As well, the Social Chapter of the Terms of Reference to the Forest Conservation Concession Contract states “the concessionaire is also committed to recruiting workers from the local community” (Article 16). Information about this Article will be added to the PDD.</p>	<p>Upon review of the now updated PDD, the audit team can now confirm that this mentioned requirement due to DRC regulations with regards to equal opportunity is now included within the project documentation and is part of the project’s official policy towards hiring new personnel. CAR 4 is closed.</p>

CAR ID	Corrective action request	Response by project proponents	DNV's assessment of response by project proponents
	anywhere within the project documentation.		
CAR 5	<p>Requirement The project proponents make the following claims within their project monitoring plan:</p> <ul style="list-style-type: none"> • “Regular patrols of the project area will be carried out in order to detect encroachment or other disturbance. In addition, designated ‘community scouts’ have been instructed to notify the project proponent when they observe newly disturbed areas within the project area. (Refer to Forest Patrols and Perimeter Observation monitoring activities, described above”. • Analysts will periodically examine one or more imagery products in order to detect encroachment or other disturbance. Imagery products may include Landsat, MODIS, FEWS NET, Google Earth imagery, or aerial imagery or videography collected by the 	<p>The project proponent’s forestry/monitoring team has systematically covered the Mai Ndombe Project forest area according to the location of the 471 forest inventory plots, the location of which are detailed in the plot map on page 19 of the CCB Monitoring Plan. These biomass plots are placed so as to sufficiently represent the project area, not only to aggregate carbon within each stratum, but also to identify disturbances. The foresters and their plot sampling team colleagues observe and record disturbances during their normal plot-sampling activities.</p> <p>Formal forest patrols on the ground have not yet started. These patrols will be implemented once participatory mapping in each village is complete. This process will allow the patrols to monitor these areas and address any concerns with the appropriate communities based on the boundaries that have been established. The training of 25 personnel who will carry out this work is currently underway;</p>	<p>The audit team has reviewed the requested information and finds it sufficient in presenting a clearer picture as to exactly what project activities (in this case, forest patrols and imagery analysis) have been carried out, and to what extent, within the last monitoring period of the project. This information is in line with what was witnessed during onsite inspection as well as with what was deduced from interviews conducted with staff personnel while on site. This information is now also included within section 3.2 of the updated project implementation report. CAR 5 is now closed.</p>

CAR ID	Corrective action request	Response by project proponents	DNV's assessment of response by project proponents
	<p>project proponent”.</p> <p>Evidence and Failure According to the provisions of the monitoring plan, the project proponent's project implementation report would thus seem to be incomplete. While there is a small mention of forest patrols having been conducted during the last verification period, i.e. “The project proponent made this determination after having regularly observed the project area in the course of conducting the forest inventory and implementing forest patrols”, there is no actual information (i.e. dates conducted, personnel involved, results, etc.) regarding the execution of these forest patrols and or imagery analysis.</p>	<p>these personnel are from the project zone.</p> <p>The imagery datasets mentioned in the VCS Monitoring Plan (Landsat, MODIS, FEWS NET, GoogleEarth imagery, or aerial imagery or videography collected by the project proponent) have been periodically monitored throughout the monitoring period. In particular, we monitored 2012 high-resolution imagery within Google Earth as well as the MODIS Fire Product and on-the-ground digital photography from the foresters / plot monitoring teams. No significant disturbances/Carbon reduction events were identified to have taken place during the (m=1) monitoring period. As stated in the MP, 2012 is a year in which we only measure the significance of an event “In the event of significant potential disturbance”. As no such event was recorded, we have not evaluated against the criteria listed in the “Definition of a Significant Disturbance” section. 2013, however, is a calendar year in which thorough image interpretation to locate and identify potential disturbances will be conducted, and this shall be conducted regardless of the identification of a significant disturbance or not.</p>	

CL ID	Clarification request	Response by project proponents	DNV's assessment of response by project proponents
CL1	<p>Requirement The project proponents must....."Include a plan to provide orientation and training for the project's employees and relevant people from the communities with an objective of building locally useful skills and knowledge to increase local participation in project implementation. These capacity building efforts should target a wide range of people in the communities, including minority and underrepresented groups. Identify how training will be passed on to new workers when there is staff turnover, so that local capacity will not be lost.; per Climate, Community and Biodiversity Project Design Standards (2nd Edition.)</p> <p>Clarification While the presence of standard operating procedures would seem to dictate how the training has and will be conducted for current and future employees of the project involved in such activities as forest inventory production and biodiversity monitoring, more information is requested with respect to how the project proponents will proceed with</p>	<p>The goal of the project is to prepare Standard Operating Procedures or work plans for all project activities. Work plans are available for all current project activities and they will be used to implement activities, guide training for new employees and be modified as management practices and activities are adapted. In a number of cases, particularly for activities that will be implemented in multiple locations, or have detailed procedures to follow, detailed SOPs will be developed. As stated in ERA's response to CAR3 above, training plans for newly hired foresters and/or forestry students currently exist. This is also the case for the local "animateurs" who have been hired from communities within the project area and who support the 10 animateurs that ERA hired to lead the community engagement program. Experienced agronomists are being used to train others in agroforestry techniques starting at our site in Nselenge. SOPs and appropriate work plans for all current and future project activities will be included in staff training documents. The SOPs prepared to date have been submitted to the auditors.</p>	<p>Upon review of the SOP's delivered to the audit team, DNV can now confirm that SOP's are in place for all current on-going activities of the project, thereby also consisting of an effective strategy by which to deal with staff turnover as well as the training of new employees. As SOP's for new procedures to be executed in the future are still being developed, these will have to be verified by the next audit team that conducts the next periodic verification.</p> <p>CL1 is now closed but becomes FAR 3.</p>

CL ID	Clarification request	Response by project proponents	DNV's assessment of response by project proponents
	<p>the relevant training of employees (and the basic management techniques) involved in those project activities where no standard operating procedures are set in place (i.e. agroforestry demonstration plots, environmental education, project socialization, etc.).</p>		
CL2	<p>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.)</p> <p>Clarification Further information is sought from the project proponents to better understand how the proliferation and capacity building work conducted with the newly established (or also yet to be established) community development committees (CLD’s) does not conflict with the traditional governance capacity or manner of making decisions for the affected communities, and/or if it does, how</p>	<p>CLD establishment and capacity building are legal requirements for every Forest Concession holder. Multiple community wide information sessions and consultations in the traditional manner (palabres – village wide meetings) were held, both with and without ERA representatives present, to inform, discuss and agree to the project. Following the decision to accept the development of the project by a community, CLDs are formed by way of a (to date, very well attended) community wide election in which the candidates are elected for individual positions within the CLD. Each candidate must inform the villages of what merits they feel they have in order to complete the job and as well must be native and permanent resident of the village. Those elected often represent various functioning groups in the community and thus are felt and reported to be good representatives of the</p>	<p>Upon review of the information recently provided by the project proponents, as well as the updated sections in the PDD that deal specifically with this community development committees issue, DNV can now verify that stakeholder communities have formed these committees out of their own free will, even if they are required to by law, and that they don't seem to present any conflict or preoccupation on their end as to infringing upon their traditional means of arriving at communal or other decisions. This was further corroborated through onsite inspection and interviews with community members, chiefs and other stakeholders.</p> <p>CL 2 is now closed.</p>

CL ID	Clarification request	Response by project proponents	DNV's assessment of response by project proponents
	<p>they have provided their consent for allowing this.</p>	<p>community as a whole.</p> <p>CLDs will decide to what extent their community would like to engage in the project or if they would like to ultimately opt out of project activities. The development of CLDs was facilitated by the project proponent to allow for communities to make such decisions as well as to make decisions related to project activities that they decide to participate in., However the scope of the functioning of the CLD is a community based decision and in some of the communities where they have been established they have used them to make decisions that are not limited to project activities. Examples where a community has successfully used the CLD to facilitate a community decision have been reported in more than one village even in this first year of the project. This been done in a manner which is not in conflict with the traditional way they have made decisions based on input that has been provided by these communities to the project proponent.</p> <p>The proponent has revised the appropriate section of the PDD that explains the manner in which the CLDs are created and</p>	

CL ID	Clarification request	Response by project proponents	DNV's assessment of response by project proponents
		<p>how decisions made have not, and should not in future, conflict with the traditional manner of making decisions.</p>	
CL3	<p>Requirement Per the Climate, Community and Biodiversity Project Design Standards (2nd Edition), the project proponents must, “Commit to developing full (community and biodiversity impact) monitoring plans within six months of the project start date or within twelve months of validation against the Standards and to disseminate these plans and the results of monitoring, ensuring that they are made publicly available on the internet and are communicated to the communities and other stakeholders.”</p> <p>Clarification While on-site, the project team learned that more fully developed versions of the community and biodiversity monitoring plans have in fact been developed, and while the standard does not require the project proponents to hand this information over to the respective auditors at this time, this additional information would currently aid the auditors in assessing the future training and managerial needs and capacities of the</p>	<p>Expert input has been sought regarding the further development of monitoring plans for flora and fauna. This input has been received in the form of draft versions of more fully developed biodiversity monitoring plans. These draft documents will be forwarded to the validator as further information, however revisions will be made prior to the next verification period based on a synthesis of expert and community input as well as CCBA related SBIA guidance.</p> <p>Work continues related to the ongoing refinement of the current PRA design and process, which will play a role in future community related monitoring activities. Future PRA activities will be carried out largely through the project’s animateurs, the training of which has been detailed in other CAR responses. Additional expert and local community input will be obtained before finalizing subsequent updates of the community monitoring plan.</p>	<p>Upon review of the documentation made available to the audit team, DNV can now verify that the project proponents are effectively working towards robust and appropriate community and biodiversity monitoring plans. The final versions of these monitoring plans should be made explicit to the audit team conducting the next periodic verification.</p> <p>CL3 is now closed but becomes FAR 4.</p>

CL ID	Clarification request	Response by project proponents	DNV's assessment of response by project proponents
	project proponents.		
CL 4	<p>Requirement Per the Climate, Community and Biodiversity Project Design Standards (2nd Edition), the project proponents must, “Commit to developing full (community and biodiversity impact) monitoring plans within six months of the project start date or within twelve months of validation against the Standards and to disseminate these plans and the results of monitoring, ensuring that they are made publicly available on the internet and are communicated to the communities and other stakeholders.”</p> <p>Clarification While on-site, through on-site interviews, the audit team learned that quality control/ quality assurance measures are also to be included for the community and biodiversity monitoring plans that will be put in place. However, none of these measures were included in any of the project documentation and a clarification for this is now being sought.</p>	<p>QC/QA procedures for community and biodiversity monitoring will be fully developed as methods for outcome and impact monitoring are completed during subsequent verification periods. QC/QA measures developed to date include:</p> <ul style="list-style-type: none"> • Proper training of field personnel for flora and fauna data collection (see training documentation) and for the undertaking of PRA related assessments and surveys (see training procedures for project animateurs). • Related SOPs for the same. • Record keeping procedures at the project offices in Inongo and Kinshasa <p>Additional future QC/QA procedures for community and biodiversity monitoring will include some or all of the following measures:</p> <ol style="list-style-type: none"> 1) Procedures to ensure reliable field measurements, including training and implementation SOPs and periodic accuracy checks, 2) Procedures to ensure reliable data 	<p>Through review of the information provided for by the project proponents, as well as through the revision of the revised portion of the CCB PD dealing specifically with this quality assurance/check issue with regards to biodiversity and community impact monitoring (section 2.4), DNV can now confirm that the project will also have quality assurance/check measures in place for both the community impact and biodiversity monitoring plans. Finalized drafts and implementation of the same shall now be verified by the next audit team during the next periodic verification. CL 4 is now closed but becomes FAR 5.</p>

CL ID	Clarification request	Response by project proponents	DNV's assessment of response by project proponents
		<p>entry and analysis, including error checks (e.g. checking the correct entry and transfer of a percentage of field cards), SOPs, and regular communications across and between all levels of personnel involved in the process,</p> <p>3) Procedures to ensure proper data maintenance and storage, including the back up of electronic copies.</p>	
FAR ID	Forward action request	Response by project proponents	DNV's assessment of response by project proponents
FAR1	<p>Evidence and Action Request With regards to best management and project implementation practices, the audit team noticed that a considerable portion of the project proponents records are hard-written and then stored in physical file cabinets. For future verifications, it is requested that the project proponents begin to transfer all of their project documentation into electronic formats in order to have everything backed up in case of an emergency or fire.</p>	<p>All project documentation has been scanned and backed up and is kept both on an office computer and off site on an external hard drive. A SOP for best management of project documentation has been developed and disseminated and will be submitted to auditors.</p>	<p>FAR1 is open.</p>
FAR2	<p>Evidence and Action Request Due to time constraints, travel</p>	<p>The Mai Ndombe REDD project will accommodate verifier sampling plans,</p>	<p>FAR2 is open.</p>

CL ID	Clarification request	Response by project proponents	DNV's assessment of response by project proponents
	logistics, and the relatively recent history of the project, villages located further inland from the lake and on the western portions of the concessions were not visited. It is the recommendation of this audit team that for future verifications, the auditors select these further located villages	including visits to more remote locations as requested during future verification	