

CCBS VERIFICATION REPORT: “ KULERA LANDSCAPE
REDD+ PROJECT FOR CO-MANAGED PROTECTED
AREAS, Malawi ” IN MALAWI

Verification Period:
01 October 2009 to 30 September 2013

Report No. 2014-9306
REVISION No. 01

Verification of project activity “Kulera Landscape REDD+ Project for Co-Managed Protected Areas in Malawi Malawi		DET NORSKE VERITAS (U.S.A.) INC. 155 Grand Avenue, Suite 500 Oakland, CA 94612 Tel: +1 415 318 3918 http://www.dnvgl.com
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Account Ref.: Leslie Durschinger		
Date of Current Issue: 04 July 2014	ConCert Project No.: PRJC-492724-2013-CCS-USA	
Revision No.: 1	Organisation Unit: Climate Change & Environmental Services	
DNV GL Reg. No.:	Report No.: 2014-9306	
Det Norske Veritas (U.S.A.) Inc. (DNV GL) has performed a verification of the project activity “ Kulera Landscape REDD+ Project for Co-Managed Protected Areas, Malawi ” in Malawi of the period 01 October 2009 to 30 September 2013. This has been done on the basis of criteria defined by the Climate Community		

and Biodiversity Standard (CCBS) second edition and the VCS methodology ‘Carbon Accounting for Mosaic and Landscape-scale REDD Projects’, Version 2.0 as well as criteria for consistent project operations, monitoring and reporting. This verification report summarizes the findings of the CCBS verification.

The verification consisted of the following four phases: a) desk review of the Project Implementation Report (PIR), monitoring plan and supporting documents, b) site visit, c) follow-up interviews and the issuance of verification findings, and d) the resolution of outstanding issues and the issuance of the verification report and verification statement.

In our opinion, the GHG emission reductions reported for the project in the Project Implementation Report are fairly stated.

In summary, it is DNV GL’s opinion that the “Kulera Landscape REDD+ Project for Co-Managed Protected Areas, Malawi” as described in the CCBS Project Document dated April 2014.

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Rev. No.	Date	Reason for Issue
0	22 November 2013	Draft verification report
01	04 July 2014	Final verification report

Reference to part of this report which may lead to misinterpretation is not permissible.

Abbreviations

AFOLU Guidelines	Agriculture, Forestry and Other Land Uses section of Guidelines for National Greenhouse Gas Inventories 2006
CAR	Corrective Action Request
CBO	Community Based Organization
CCBA	Climate, Community, and Biodiversity Alliance
CCB	Climate, Community, and Biodiversity
CL	Clarification Request
CO ₂ e	Carbon Dioxide Equivalent
DBH	Diameter at Breast Height
DNV GL	Det Norske Veritas (U.S.A.) Inc.
FAR	Forward Action Request
GHG	Greenhouse Gas(es)
GWP	Global Warming Potential
HCV	High Conservation Value
MED	Methodology Element Documentation
MHCA	Marungu Hills Conservancy Association
NER	Net Emission Reduction
PDD	Project Design Document
PIR	Project Implementation Report
REDD	Reduced Emissions from Deforestation and Degradation
VVB	Verification Body
VCS	Verified Carbon Standard
VCSA	VCS Association
VCU	Voluntary Carbon Unit
WBCSD	World Business Council for Sustainable Development
WRI	World Resources Institute

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1 INTRODUCTION

Terra Global Capital, LLC has commissioned Det Norske Veritas (U.S.A.) Inc. Climate Change & Environmental Services (DNV GL) to verify the Kulera Landscape REDD+ Project for Co-Managed Protected Areas, Malawi in Malawi (the project) based on the Project Implementation Report (PIR) of the period 01 October 2009 to 30 September 2013. This report provides a description of the steps involved in conducting the verification and the findings of the verification based on the Climate, Community and Biodiversity Project Design Standards Second Edition, December, 2008 (CCBS), as well as criteria for consistent project operations, monitoring and reporting.

1.1 Objective

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

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

The objective of this verification was to verify and provide a verification statement of emission reductions and benefits to the community and biodiversity reported for the project for the period 01 October 2009 to 30 September 2013.

1.2 Scope and Criteria

The scope of the verification is:

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

1.3 CCB Project Description

Title of project activity:	<i>Kulera Landscape REDD+ Project for Co-Managed Protected Areas, Malawi.</i>
Monitoring methodology for baseline and project	VCS VM0006 Version 2.0 and validated monitoring plan

activities	
Location of the project activity:	Project Areas: 5 km zone located just inside the border of three different protected areas in the Northern and Central Regions in Malawi: Nyika National Park, Vwaza Marsh Wildlife Reserve, and Nkhotakota Wildlife Reserve Project Zones: Both the Project Areas and a 10 km zone just outside the boundaries of the three protected areas.
Project's crediting period:	01 October 2009 to 30 September 2039
Period covered by this verification	01 October 2009 to 30 September 2013

1.4 Level of Assurance

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

2 METHODOLOGY

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

- The emission reduction calculations and the relevant data records.
- The management systems to support the project operation and monitoring.
- Assessment of the benefits of the project activities according to the CCB standard.
- Assessment of the monitoring activities of the project activities according to the monitoring plan.

Verification team

The verification team consisted of the following personnel:

Role	Last Name	First Name	Country	Type of involvement					
				Desk review	Site visit / Interviews	Reporting	Supervision of work	Technical review	TA 14.1 competence
Project Manager	Bachamanda	Shruthi	USA				✓		
Team leader (Validator)	Espejo	Andres	Italy	✓	✓	✓			✓
Technical reviewer	Aalders	Edwin	Norway					✓	✓

Duration of Verification

Preparations: *28 October 2013 to 09 November 2013*
 On-site verification: *11 November 2013 to 16 November 2013*
 Reporting, calculation checks and QA/QC: *18 November 2013 to 04 July 2014*

2.1 Review of Documentation

The basis for the verification has been the Project Implementation Report /1/ and the CCBA Project Monitoring Plan /2/, as well as the CCB project design document (CCB PDD), /3/, and the approved VCS methodology applied by the project, VM0006, Version 2.0 /19/. The project proponent has also provided the verification team with spreadsheets of all data necessary for verification of the emission reductions and project activities /7//12//14/.

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

Documentation provided by the project proponents

Ref	Name of Document
/1/	Terra Global Capital, LLC. CCB PIR for project activity “ Kulera Landscape REDD+ Project for Co-Managed Protected Areas, Malawi” in Malawi, version 1.0 dated 6 November 2013 first version received from the project proponent and published in the CCBA website and version 12 dated April 2014
/2/	Terra Global Capital, LLC. CCB Monitoring Plan, Version 1.0, 8 November 2013
/3/	Terra Global Capital, LLC. CCB PDD for project activity “ Kulera Landscape REDD+ Project for Co-Managed Protected Areas, Malawi” in Malawi, version 2.0 dated October 2013 first version received from the project proponent and published in the CCBA website and version 11.0 dated April 2014
/4/	Terra Global Capital, LLC: VCS-PD for project activity “ Kulera Landscape REDD+ Project for Co-Managed Protected Areas, Malawi” in Malawi, version 1.0 dated 1 September 2013 first version received from the project proponent and version 14 dated 3 July 2014
/5/	Terra Global Capital, LLC: VCS-MR for project activity “ Kulera Landscape REDD+ Project for Co-Managed Protected Areas, Malawi” in Malawi, version 1.0 dated 5 November 2013 first version received from the project proponent and version 10 dated 3 July 2014
/6/	Terra Global Capital, LLC. Non-Permanence risk assessment report, version 6, 3 July 2014
/7/	Terra Global Capital, LLC. GIS data and information: <ul style="list-style-type: none"> - ESRI Shapefiles of general geographical information (i.e. roads, rivers, political limits, protected areas, etc.)

Ref	Name of Document
	<ul style="list-style-type: none"> - ESRI Shapefiles with limits of project boundary, leakage area and reference region. - LULC Maps for Nyika, Vwaza and Nkhotakota project areas for three historical periods (2000, 2002/2003 and 2009).
/8/	<p>Various entities. Signed contracts and agreements:</p> <ul style="list-style-type: none"> - Co-Management Agreement between Department of Parks and Wildlife and Nyika Vwaza Association - Agreement for the carbon development, carbon rights and benefits sharing with respect to emission reductions for the Kulera biodiversity landscape REDD+ project in co-managed national protected areas in Malawi by and between the Government Of Malawi; the Nkhotakota Wildlife Reserve Association; and Terra Global Capital, LLC, 20 September 2013 - Agreement for the carbon development, carbon rights and benefits sharing with respect to emission reductions for the Kulera biodiversity landscape REDD+ project in co-managed national protected areas in Malawi by and between the Government Of Malawi; the Nyika-Vwaza Association; and Terra Global Capital, Llc, 20 September 2013
/9/	<p>Terra Global Capital, LLC. Various financial information and data:</p> <ul style="list-style-type: none"> - Carbon Development Costs, v8-0 Kulera v0-4 - Financial Projections v8-0 Kulera v0-4 - Kulera REDD Project Implementation Budget - 60 years for PD v0-2
/10/	<p>Total Land Care. Annual and quarterly reports on project implementation issued to USAID.</p> <hr/> <ul style="list-style-type: none"> - Year 1 Annual and 4th Quarter Report, October 2010 - Year 2 Annual Report, October 2011 - Year 3 Annual and 4th Quarter Report, October 2012 - Year 4 Quarter 3 Quarterly Report April -June 2013, July 2013
/11/	<p>Total Land Care. Information on local stakeholder consultations, surveys and Participatory Rural Appraisal.</p> <hr/> <ul style="list-style-type: none"> - Summary of Consultations, September 2013 - HH Survey Report v2, 10 June 2011 - PRA Field Report, 22 July 2012
/12/	<p>Terra Global Capital, LLC. Standard Operating Procedures (SOPs):</p> <hr/> <ul style="list-style-type: none"> - SOP Biomass Inventory v7-0, May 2012 - SOP Bunda College Walkley Black Procedure, Year 2012 - SOP for Boundary Demarcation - Kulera v11-1, May 2012 - SOP PRA Kulera v6-0, May 2012 - SOP Terralytics Classification Manual Kulera v1-1, September 2011

Ref	Name of Document
/13/	Terra Global Capital, LLC. Field Inventory data sheets: <ul style="list-style-type: none"> - Plots visited: NFOR_008, NFOR_009, NFOR_021, NFOR_008, NKHT_011, NKHT_106, NYKA_039, VWZA_016 - Additional data transfer check: NYKA – 220, NYKA – 221, NYKA – 223, NYKA - 239
/14/	Terra Global Capital, LLC. ER and Forest Inventory spreadsheet: <ul style="list-style-type: none"> - Gross Emission Reductions for Nyika, Vwaza and Nkhotakota, Year 2013 - Combine calcs overview tables, Year 2013 - Kulera Biomass Data, Year 2013
/15/	Dr Chimwemwe Mawaya (Team Leader), Dr Marlene Chikuni, Mr. James Chimphamba and Mr. Zuze Dulanya. Bio-Physical Inventory For The Kulera Biodiversity Project Final Copy: Volume I. Year 2011.
/16/	ECODIT: USAID Evaluation Report - Malawi Biodiversity Projects Evaluation, June 2013
/17/	Aprovecho Research Center: Consultancy report on possible improvements in the Cook-stove component of the REDD Kulera project. Year 2012
/18/	Total Land Care: Monitoring and Evaluation (E&M) spreadsheets which evidences cookstove monitoring: <ul style="list-style-type: none"> - RU consolidated Kulera data base by EPA and district - Nkhotakota kulera consolidated cook stoves data 2010-13 - Kasungu Kulera consolidated cook stoves - RUMPHI ZONE KULERA REPORT (OCT 2010-JUNE 2011) - Kasungu REPORT JAN-MARCH 2013 - KK TLC KULERA BY SITE 2012 3rd quarter revised 2

Methodologies, tools and other guidance by VCSA

Ref	Name of Document
/19/	Terra Global Capital: Methodology VM0006 'Carbon Accounting for Mosaic and Landscape-scale REDD Projects', Version 2.0
/20/	VCSA: VT0001 – "Tool for the Demonstration and Assessment of Additionality in VCS AFOLU project activities" (Version 3.0), 1 February 2012
/21/	VCSA: VCS standards: VCS Standard Version 3.4, 8 October 2013
/22/	VCSA: AFOLU Non-Permanence Risk tool: VCS Version 3.2, 4 October 2012
/23/	VCSA: 'Program Definitions: VCS Version 3.5', 8 October 2013
/24/	VCSA: AFOLU requirements: VCS Version 3.4, 8 October 2013
/25/	ISO 14064-3:2006: Greenhouse gases — Part 3: Specification with guidance for the

Ref	Name of Document
	validation and verification of greenhouse gas assertions, First edition, 1 March 2006
/26/	ISO 14065:2007: Greenhouse gases — Requirements for greenhouse gas validation and verification bodies for use in accreditation or other forms of recognitions, First edition, 15 April 2007
/27/	CDM Executive Board: 'Combined tool to identify the baseline scenario and demonstrate additionality in AR CDM project activities' (version 1), Annex 19, EB35
/28/	VCSA: Validation and Verification Manual. Version 3.0

Documentation used by DNV GL to validate / cross-check the information provided by the project proponents

Ref	Name of Document
/29/	<p style="text-align: center;"><u>Government of Malawi. Applicable legislation:</u></p> <ul style="list-style-type: none"> - National parks and wildlife act (1992), 4 May 1992 and modifications made in 2004 - Customary Land Bill, 2012
/30/	Environmental Affairs Department - Ministry of Natural Resources, Energy and Environment. Malawi Fourth Country Report To the Convention on Biological Diversity (CBD), 30 June 2010
/31/	ESRI : Change matters – On-line visor showing NDVI change between 1975 and 2000, http://changematters.esri.com/compare
/32/	Henry, M., Picard, N., Trotta, C., Manlay, R.J., Valentini, R., Bernoux, M. & Saint-André, L. 2011. Estimating tree biomass of sub-Saharan African forests: a review of available allometric equations. <i>Silva Fennica</i> 45(3B): 477–569.
/33/	Timothy Pearson, Sarah Walker and Sandra Brown. 2005. Sourcebook for Land Use, Land-Use Change and Forestry Projects.
/34/	Ghislain Vieilledent, Romuald Vaudry, Samuelson F. D. Andriamanohisoa O. Sarobidy Rakotonarivo, H. Zafyson Randrianasolo, Hasina N. Razafindrabe, Cécile Bidaud Rakotoarivony, Johannes Ebeling, and Maminiana Rasamoelina. 2011. Allometric models, from scaling theory to improved biomass and carbon stock estimates in tropical forests
/35/	Zanne, A.E., Lopez-Gonzalez, G.*, Coomes, D.A., Ilic, J., Jansen, S., Lewis, S.L., Miller, R.B., Swenson, N.G., Wiemann, M.C., and Chave, J. 2009. Global wood density database. <i>Dryad</i> . Identifier: http://hdl.handle.net/10255/dryad.235 .
/36/	IPCC, 2003: Good Practice Guidance for Land Use, Land-Use Change and Forestry, prepared by the National Greenhouse Gas Inventories Programme, Jim Penman, Michael Gytarsky, Taka Hiraishi, Thelma Krug, Dina Kruger, Riitta Pipatti, Leandro Buendia, Kyoko Miwa, Todd

Ref	Name of Document
	Ngara (eds). Published: IGES, Japan. URL: http://www.ipcc-nggip.iges.or.jp/public/gpplulucf/gpplulucf.html
/37/	Forest Carbon Partnership Facility: http://www.forestcarbonpartnership.org/fcp/
/38/	UN-REDD programme: http://www.un-redd.org/
/39/	DNV GL Climate Change Services: <ul style="list-style-type: none"> • VCS validation report, Revision 01, 12 March 2014 • CCBS validation report, Revision 01, 12 March 2014
/40/	Richards, M. 2011. Social and Biodiversity Impact Assessment (SBIA) Manual for REDD+ Projects: Part 2 – Social Impact Assessment Toolbox. Climate, Community & Biodiversity Alliance and Forest Trends with Rainforest Alliance and Fauna & Flora International. Washington, DC.
/41/	Richards, Michael. Social Impacts Guidance: Key Assessment Issues for Forest Carbon Projects. In Building Forest Carbon Projects, Johannes Ebeling and Jacob Olander (eds.). Washington, DC: Forest Trends, 2011.
/42/	Schreckenber, K., Camargo, I., Withnall, K., Corrigan, C., Franks, P., Roe, D., Scherl, L. M. and Richardson, V. (2010) Social Assessment of Conservation Initiatives: A review of rapid methodologies, Natural Resource Issues No. 22. IIED, London.
/43/	Dilley, M., R.S. Chen, U. Deichmann, A.L. Lerner-Lam, M. Arnold, J. Agwe, P. Buys, O. Kjekstad, B. Lyon, and G. Yetman. 2005. Natural Disaster Hotspots: A Global Risk Analysis. Disaster Risk Management Series No. 5. Washington, D.C.: The World Bank.
/44/	UNDP: International Human Development Indicators, http://hdr.undp.org/en/countries
/45/	MyClimate: Energy Efficient Cook Stoves for Siaya Communities, Kenya, Project ID: GS 879 Version: 3.2, Date of Document: 10 July 2012
/46/	ECOFYS: Gold Standard PD: Integrated Biomass Energy Conservation Project - Malawi. Version: 6. Dated 2 November 2012
/47/	The Sigma Global Company Pty Ltd and Vimiti Limited. CDM PDD Improved Cook Stove Project 1, Nkhata Bay District, Malawi. Version 1.0. 14 May 2013.
/48/	Wilson Ancelm Mugasha, Tron Eid, Ole Martin Bollandsås, Rogers Ernest Malimbwi, Shabani Athumani Omari Chamshama, Eliakimu Zahabu, Josiah Zephania Katani. 2013. Allometric models for prediction of above- and belowground biomass of trees in the miombo woodlands of Tanzania. Forest Ecology and Management 310 (2013) 87–101

2.2 Site Visit

In the period from 11 November 2013 to 16 November 2013 DNV GL conducted various interviews with the project proponent's staff, staff of other project entities involved in the project, and other stakeholders such as the REDD+ national initiative coordinator.

Interview Topics

Ref.	Date	Name	Organization	Topic
/49/	11 November 2013	James Sadrack (Chairman)	NAWIRA	- Organisation of association
	11-14 November 2013	Duncan Mkandawire (Chairman)	NVA	- FPIC - Agents and drivers of deforestation
/50/	11-16 November 2013	Blessings Mwale (Chief of Party – Kulera Biodiversity Project)	TLC	- Project description and project's history - Baseline scenario (Drivers of deforestation)
	11 November 2013	Trent Bunderson (Executive Director)		- Implementation of project activities
	11 November 2013	Zwide D. Jere (Managing Director)		- Monitoring of project activities
/51/	11-16 November 2013	Erica Meta (Forester)	TGC	- Forest inventory - GHG accounting - Other carbon aspects
	11-16 November 2013	Leslie Bolick (Consultant)		
	11 November 2013	Cheri Sugar (Director)		- Project description and project's history - Institutional arrangements
/52/	11 November 2013	Brighton Kumchedwa (Director – Chair)	NDPW	- History of protected areas - Applicable Laws and regulations - Drivers of deforestation
		Ramosh Jiah (Deputy Director)		
/53/	11 November 2013	Alexander Phiri (Head of Department)	Faculty of Development Studies	- PRA - Drivers of deforestation
/54/	12-13 November 2013	Obedi G. Mkandawire (Zone Manager)	TLC	- Implementation and monitoring of project activities - Drivers of deforestation - Validity of reference region
		Thomas Milanue (Field coordinator)	TLC	- Implementation and monitoring of project activities
/55/	12-14 November 2013	Henry Kadauma (Extension officer)	DPW	- Past trends in deforestation

Ref.	Date	Name	Organization	Topic
				<ul style="list-style-type: none"> - Drivers of deforestation - Validity of reference region
	14 November 2013	George Banda (Vwaza Wildlife Reserve Manager having worked previously in Nyika National Park)	DPW	<ul style="list-style-type: none"> - Past trends in deforestation - Drivers of deforestation - Validity of reference region - System of grievances
	15 November 2013	Mutheto Ndhlamini (Extension Officer Nkhotakota having worked previously in Nyika and Vwaza)	DPW	<ul style="list-style-type: none"> - Past trends in deforestation - Drivers of deforestation - Validity of reference region - System of grievances
/56/	13-15 November 2013	Twalibu Tandwe (Team Leader Forest Inventory)	Biological Sciences Department – Chancellor College	<ul style="list-style-type: none"> - Forest inventory
		Makina Mawaya (Team Leader Forest Inventory)		
	15 November 2013	Cmwe Mawaya (Head of Department / Lecturer)		
/57/	11 November 2013	John Kerkering (REDD National Coordinator)	Forestry Department	<ul style="list-style-type: none"> - Drivers of deforestation - Validity of reference region - REDD institutional arrangements - Data availability (i.e. allometric equations, etc.)
/58/	12-16 November 2013	Members of 4 villages and members of PRA of villages within the same group of villages: 1. Nkchamayamaji (Nyika) 2. Chimlu (Nyika)	Local communities	<ul style="list-style-type: none"> - Drivers of deforestation - Validity of reference region - Past trends in deforestation - Impacts of project activity - FPIC

Ref.	Date	Name	Organization	Topic
		3. Kapatakafinye (Nyika)		- Complaints and grievances
		4. Bongowongo (Vwaza)		
		5. Mphalamando (Nkhotakota)		

2.3 Site Inspections

On 12-15 November 2013, a field inspection and interviews on-site were carried out in the three different project areas and their surroundings. As part of this inspection the following activities were performed:

- An assessment of the implementation and operation of the proposed project activity through visual inspection and through interviews with the project proponent's staff.
- Confirmation of the applicability of the methodology.
- Assessment of the project boundaries and the stand information using a Pocket PC with the geographic information uploaded and connected to a GPS receiver.
- Assessment of the accuracy in the LULC maps and other cartography;
- Assessment of the implementation of the SOPs of forest inventory;
- Assessment of the monitoring provisions;

2.4 Reporting of Findings

A corrective action request (CAR) is issued where:

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

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

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

Two CARs, zero CLs, and 4 FAR's were identified. All outstanding issues have been closed, with acceptable corrections implemented by the project proponent.

3 VERIFICATION FINDINGS

This section summarizes the findings from the verification of the emission reductions reported for the project for the period 01 October 2009 to 30 September 2013.

Since this verification was conducted at the same time of the CCB Validation, the reader is kindly referred to the CCB validation report for additional information on the assessment on the compliance with the CCBS requirements /39/. The assessment on these requirements will not be repeated in this report.

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

This is the first periodic verification. There were no remaining issues left from the validation.

3.2 Project Implementation

During the site visits, by observing, reviewing operation records and interviewing relevant staff, community members and affected stakeholders, DNV GL was able to verify that the project has been implemented and operated as described in the CCB PDD and PIR for the project and that the information provided on the implementation status is accurate /10/.

The CCB PDD proposed the implementation of a number of project activities in order to prevent and mitigate deforestation:

1. Strengthening Land tenure and Forest Governance
2. Support for the Development and Implementation of Sustainable Forest and Land Use Management Plans
3. Forest Protection through Patrolling, Social Fencing, and Maintenance of Forest Boundaries
4. Fire Prevention and Suppression Activities
5. Reduce Fuel wood Consumption and Increase Energy Efficiency by Introducing Fuel-Efficient Cook-stoves
6. Creation of Alternative Sources of Fuelwood through Agroforestry and Farm Woodlot Management
7. Sustainable Intensification of Agriculture on Existing Agricultural Lands
8. Development of Local Enterprises Based on Sustainably Harvested Non-Timber Forest products (NTFPs), Such as Honey, Coffee, Macadamia, and Livestock

DNV GL confirmed that these activities was partially implemented as confirmed during the site visit through visual inspection and interviews /49//52//54//55//57//58/ and through the annual implementation reports provided by TLC to USAID /10/. Furthermore, the implementation status was confirmed by the evaluation report produced by a third party as requested by USAID /16/.

Since this verification has been conducted at the same time of the CCB Validation, please refer to the CCB validation report for additional information on the assessment on the compliance with the CCBS requirements /39/.

3.3 Completeness of Impact Monitoring

During the site visit, through observation, record review and interviews, it could be confirmed that the monitoring arrangement is in line with the monitoring plan, CCB PDD, PIR, and the applied VCS methodology, VM0006. All of the necessary parameters have been properly monitored to ensure the accuracy of the emission reduction calculations and community and biodiversity impacts.

Also during the site visit, the auditors assessed the progress made by the project proponent to implement the project activities outlined in the PDD. DNV GL also assessed the monitoring activities conducted by the project proponent to ensure that the impact is being effectively measured and managed. Where the project activity was not fully implemented, DNV GL assessed the progress (administrative, business plans, financial projections, and stakeholder interviews).

During the site visit, the auditors assessed the progress made by the project proponent to implement the project activities outlined in the PDD. DNV GL also assessed the monitoring activities conducted by the project proponent to ensure that the biodiversity impact is being effectively measured and managed.

3.4 Accuracy of Emission Reduction Calculations

Following EQ104 of VM0006 Version 2.0 /19/ and considering that: a) emissions from degradation are not accounted for; b) no harvesting or Assisted Natural Regeneration (ANR) is foreseen in the project scenario; c) emissions from long-lived wood products are not accounted for; and d) emissions from other secondary sources are not applicable, the GHG emission reductions would be quantified through the following equation:

Net Emission Reductions (NERs)	=	$\textcircled{1} + \textcircled{2} + \textcircled{3} + \textcircled{4}$	
		Δ GHG from avoided deforestation which is equal to baseline emissions minus project emissions from avoided deforestation.	$\textcircled{1}$
		+ Δ GHG from deforestation due to leakage	$\textcircled{2}$
		+ Δ GHG from leakage by unconstrained geographic drivers	$\textcircled{3}$
		+ Δ GHG from improved cookstoves	$\textcircled{4}$

Baseline emissions and removals

Following the provisions of VM0006 Version 2.0 /19/, baseline emissions would be the sum of baseline GHG emissions from avoided deforestation and baseline net GHG emissions from improved Cook-stoves.

Baseline GHG emissions from avoided deforestation

Considering only the baseline emissions from equation EQ106 of the applicable methodology, the baseline emissions would be estimated by the following formula:

$$BE_{DF}(t) = \sum_{i=1}^{nrFNFtransitions} \sum_{tt=1}^t u_{classification} \cdot u_{transition}(i) \cdot \left(-\Delta area_{projectArea,baselineScenario}(t,i)\right) \cdot \left(EF_{AGL}(i) + EF_{AGD}(i,t-tt) + EF_{BG}(i,t-tt) + EF_{SOM}(i,t-tt)\right)$$

Where:

$u_{classification}$	<p>Discounting factor for NERs from avoided deforestation, based on the accuracy of classification, i.e. dividing land into broad land use types. This discount factor is estimated through the multiplication of two different factors:</p> <p>a) Discount factor based on the number of points in the historical period used to determine the historical baseline deforestation. This is equal to 0.9 since only 3 points in time were used.</p> <p>b) Discount factor based on the accuracy assessment of the LU classification. The methodology requires that the accuracy assessment of all maps is equal or higher to the minimum accuracy observed in the maps of the baseline historical period. The accuracy of the LULC map is above 90%, therefore no discount factor was required.</p> <p>Hence, the overall discount factor is equal to 0.9 which is the same as the one provided in the VCS PD.</p>
$u_{transition}(i)$	<p>Discounting factor for all emission reductions, based on the uncertainty of biomass inventory related to transition i. DNV GL confirmed that the same uncertainties applied for the baseline emission factors has been applied for the project scenario.</p>
$\Delta area_{projectArea,baselineScenario}(t)$	<p>Hectares undergoing transition i within the project area under the baseline scenario during year t. [ha yr-1]. DNV GL confirmed that the estimates provided in the VCS PD were used for the GHG benefit calculations.</p>
$EF_{AGL}(i), EF_{AGD}(i, t - tt), EF_{BG}(i, t - tt),$ and $EF_{SOM}(i, t - tt)$	<p>Aboveground live, aboveground dead, belowground, and soil emission factor for transition i, and time after transition $t-tt$. Since the validation these emission factors have not been updated. DNV GL confirmed that the estimates provided in the VCS PD were used for the GHG benefit calculations.</p>

DNV GL reviewed all the assumptions and calculations made and confirmed that they are in accordance to the applicable methodology and that they are correct.

Baseline net GHG emissions from Cook-stoves

Considering only the baseline emissions from equation EQ78 of the applicable methodology, the baseline net GHG emissions would be estimated by the following formula:

$$ER_{CFE}(t) = DF_{LeakageCFE} \sum_{i=1}^{nrCFE} HH_{non-CFE}(i, t) \cdot U_{CFE}(t) \cdot Fuel(t) \cdot \left(1 - \frac{\eta_{old}}{\eta_{new}}\right) \cdot NCV_{fuel} \cdot (EF_{non-CO2, fuel} + proportion_{DG, fuel} \cdot EF_{CO2, fuel})$$

Where

$ER_{CFE}(t)$	Emission reduction from CFE activities during year t from cook stoves in the project area. [t CO2e]
$DF_{LeakageCFE}(t)$	Leakage discount factor [Proportion]. A default factor from AMS.II.G of 0.95 has been used.
$U_{CFE}(t)$	Fraction of cumulative usage rate for technologies in project scenario in year t based on cumulative adoption rate and drop off rate revealed by usage surveys [Proportion]. The project proponent has assumed an annual drop-off rate of 0.979 which is the drop-off rate assumed by in a project in Kenya which employs a similar technology /59/.
$Fuel(t)$	Average annual volume of biomass fuel consumed by households in the absence of the project activity at time t for cooking purpose. [$tyr^{-1} HH^{-1}$]. This is consistent with the VCS PD; it is sourced from the household surveys and PRAs /11/. This is equal to 2.72 [$tyr^{-1} HH^{-1}$].

<p>$HH_{non-CFE}(t, i)$ $nrCFE$</p>	<p>Total number of households in the project area that collect biomass fuel from the project area and use i number of efficient or alternative appliances under the project scenario and do not use CFE under the baseline at time t. [Count] and total number of number of improved cookstoves and/or fuel efficient appliances [Count].The project proponent has assumed a total of 27 474 stoves implemented as part of their program during the monitoring period /10/. During the site visit DNV GL checked that cookstoves were implemented in all villages that visited. DNV GL further confirmed that the project has in place procedures that rule the collection of the data from village level up to project level, and that then are used for reporting purposes /10/. Since DNV GL could not apply a statistical valid sampling plan for verifying the implementation, it reached the reasonable level of assurance through additional means:</p> <ul style="list-style-type: none"> • <u>DNV GL checked the implementation results at a zone level for some periods and zones /18/ and compare them with the annual reports /10/ and found that all are consistent;</u> • <u>Moreover, the project proponent has assumed a drop-off rate, which DNV GL deems it is conservative as in the case</u>
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	<p><u>of damages in the stoves, households are trained to make the necessary reparations;</u></p> <ul style="list-style-type: none"> • <u>The project implementation has been controlled by USAID. A third party conducted a sound sample of households and confirmed that the cookstove component was adequately implemented /16/.</u>
η_{old}	Efficiency of the baseline cook stoves or appliances being replaced. [Fraction].The project proponents has assumed a default value of 0.1 as prescribed by the applicable methodology.
η_{new}	Efficiency of the project CFE appliances deployed. [Fraction].The value of 0.26 has been applied as sourced from the ad-hoc measurements reported in the report from Aprovecho Research Center /17/. An efficiency decay annual rate of 10% has been adopted for conservativeness purposes.
$proportion_{DG}(fuelwood)$	The default proportion of degradation related carbon loss from fuelwood collection activities [Fraction].The project proponent has assumed a value of 0.95 which is deem reasonable according to DNV GL .
NCV_{fuel}	Net calorific value of non-renewable biomass that is substituted. [TJ (Mg DM) ⁻¹]. This is equal to 0.015 as sourced from the 2006 IPCC GL /36/.
$EF_{non-CO2,fuel}$	Non-- - CO2 emission factor of the fuel that is reduced. [MgCO2 TJ ⁻¹]. This is equal to 30.3 as sourced from the 2006 IPCC GL /36/.
$EF_{CO2,fuel}$	Emission factor for the substitution of non-renewable woody biomass by similar consumers. [MgCO2 TJ ⁻¹]. This is equal to 122.22 as sourced from the 2006 IPCC GL /36/.

DNV GL reviewed all the assumptions and calculations made and confirmed that they are in accordance to the applicable methodology and that they are correct.

DNV GL checked the GHG calculations spreadsheet and confirmed that the values provided in the VCS PD were used in the ex-post calculations /14/. DNV GL confirmed that the estimation of baseline emissions were determined correctly and that the data measured was accurate.

The baseline emissions considering also the cookstove component would be = **1 743 807 tCO₂**

Project emissions and removals

Considering only the project emissions from equation EQ106 of the applicable methodology, the baseline emissions would be estimated by the following formula:

$$PE(t) = \sum_{i=1}^{nrFNFTransitions} \sum_{tt=1}^t u_{classification} \cdot u_{transition}(i) \cdot \left(-\Delta area_{projectArea,projectScenario}(t,i) \right) \cdot \left(EF_{AGL}(i) + EF_{AGD}(i,t-tt) + EF_{BG}(i,t-tt) + EF_{SOM}(i,t-tt) \right)$$

Where:

$u_{classification}$	Discounting factor for NERs from avoided deforestation, based on the accuracy of classification, i.e. dividing land into broad land use types. The value used would be the same as the one used for the baseline emissions (c.f. §4.2.1 baseline emissions).
$u_{transition}(i)$	Discounting factor for all emission reductions, based on the uncertainty of biomass inventory related to transition i .
$\Delta area_{projectArea,projectScenario}(t,$	Hectares undergoing transition i within the project area under the project scenario during year t . [ha yr ⁻¹]. Different scenes from LANDSAT 8 imagery for Nkhotakota and Vwaza (i.e. 20130602 and 20130530) and THEOS imagery for Nyika (i.e. 20130818) were used. A post-classification change detection technique was used in order to determine the land use change in the monitoring period, consisting in producing one independent LULC cover map per epoch per site and determining a posteriori the land transitions. LULC maps were produced through a machine learning algorithm (i.e. Random Forests) using overall spectral information and using as reference data more than 1000 points. This is the same algorithm used for the baseline. These reference points were visually interpreted by six different interpreters and constituted only those points where 70% agreement between interpreters was reached. The machine learning randomly selected 66% of the points for calibration purposes, using the remaining 33% for internal validation (out of the bag error). The resulting product was post-processed through the application of different filters and use of other ancillary data in order to improve the certainty in the image classification. DNV GL confirmed that SOPs were in place in order to ensure the correct implementation of the procedure and the quality in the classification /12/ and ensure through interviews the correct implementation of these /51/. Resulting products were inspected visually in order to confirm the overall classification coherence /7/ and

	the coherence in the transitions
$EF_{AGL}(i), EF_{AGD}(i, t - tt), EF_{BG}(i, t - tt)$, and $EF_{SOM}(i, t - tt)$	Aboveground live, aboveground dead, belowground, and soil emission factor for transition i , and time after transition $t-tt$. The value used would be the same as the one used for the baseline emissions (c.f. §4.2.1 baseline emissions).

Therefore project emissions = **588 850 tCO₂**.

Leakage emissions

According to the applicable methodology VM0006 Version 2.0 /19/ there are three possible leakage sources: a) Geographically constraint drivers; b) Geographically unconstrained drivers; c) Market leakage. Market leakage is not applicable as no timber products sourced from the project area in the baseline or project scenario are supplied to a national or international market.

Leakage emissions from geographically constrained drivers

According to equation EQ107 of the applicable methodology this is estimated as follows:

$$\begin{aligned}
 Leakage(t) = & \sum_{i=1}^{nrFNFtransitions} \sum_{tt=1}^t u_{classification} \cdot u_{transition}(i) \\
 & \cdot \left(\begin{aligned} & +\Delta area_{leakageArea,projectScenario}(t, i) \\ & -\Delta area_{leakageArea,baselineScenario}(t, i) \end{aligned} \right) \\
 & \cdot (EF_{AGL}(i) + EF_{AGD}(i, t - tt) + EF_{BG}(i, t - tt) + EF_{SOM}(i, t - tt))
 \end{aligned}$$

Where:

$u_{classification}$	Discounting factor for NERs from avoided deforestation, based on the accuracy of classification, i.e. dividing land into broad land use types. The value used would be the same as the one used for the baseline emissions (c.f. §4.2.1 baseline emissions).
$u_{transition}(i)$	Discounting factor for all emission reductions, based on the uncertainty of biomass inventory related to transition i . The value used would be the same as the one used for the baseline emissions (c.f. §4.2.1 baseline emissions).
$-\Delta area_{leakageArea,baselineScenario}(t, i)$	Hectares undergoing transition i within the leakage area under the baseline scenario during year t . [ha yr-1]. The value used would be the same as the one reported in the VCS PD.
$\Delta area_{leakageArea,projectScenario}(t, i)$	Hectares undergoing transition i within the leakage area under the project scenario during year t . [ha yr-1]. The same methods were used as described for

	$\Delta area_{projectArea,projectScenario}(t, i).$
$EF_{AGL}(i), EF_{AGD}(i, t - tt), EF_{BG}(i, t - tt),$ and $EF_{SOM}(i, t - tt)$	Aboveground live, aboveground dead, belowground, and soil emission factor for transition i , and time after transition $t-tt$. The value used would be the same as the one used for the baseline emissions (c.f. §4.2.1 baseline emissions).

During this period transitions from non-forest to forest were above transitions from forest to non-forest.

Leakage emissions from geographically un-constrained drivers

The analysis of drivers of deforestation made as part of the PRA and household survey /11/ did not show the existence of un-constrained drivers. During the site visit DNV GL held a number of interviews with local stakeholders and confirmed that in the project areas there is not a large migration such as it happens in other countries (e.g. Trans-migrassi) /49//52//55//58/. New inhabitants arriving from other areas in Malawi integrate in existing populations upon being authorized by the village chief and other traditional authorities. Once this is authorized a piece of land is allocated to the new family and they become part of the existing community, becoming part of the constrained driver’s emission source. Any increase in deforestation from these populations will be factored in the monitoring of the deforestation in the leakage area. Hence, no emissions from geographically un-constrained drivers are applicable in the context of the present project.

Therefore, the leakage emissions = 0 tCO₂.

3.5 Quality of Evidence to Determine Emission Reductions

The project proponent has established management procedures and implemented the same effectively to ensure that the process is consistent. The procedures /12/ /4/ cover: management responsibilities, data monitoring procedures, training procedures, periodical internal audits, management reviews and corrective actions in case of any deviations effectively. Quality control and quality assurance measures processes are followed as per defined procedures and carried out periodically.

Responsibilities for the different aspects of the project monitoring are clearly defined in the SOPs and the CCB monitoring plan.

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

3.6 Management Capacity and Best Practices.

The quality assurance and quality control procedures in terms of sampling, stratification, maintenance and data reporting are appropriate. Where ever possible, the employment of locals has been a priority and DNV GL was able to confirm such activity during the site visit.

Since this verification has been conducted at the same time of the CCB Validation, please refer to the CCB validation report for the assessment of the management capacity and best practices /39/.

3.7 Net Emission Reductions

The net anthropogenic GHG emission reductions were calculated correctly on the basis of the approved baseline and monitoring methodology VM0006 Version 2.0 and the monitoring plan contained in the registered VCS-PD of 3 July 2014.

DNV GL verified that the net anthropogenic GHG removals from the “ Kulera Landscape REDD+ Project for Co-Managed Protected Areas, Malawi” in the reporting period from 01 October 2009 to 30 September 2013 are:

GHG Emission Reductions or Removals	tCO ₂ e
Baseline Emissions or Removals	1 743 807 tCO ₂ e
Project Emissions or Removals	588 850 tCO ₂ e
Leakage	0 tCO ₂ e
Net GHG emission reductions or removals	1 154 957
Buffer (10%)	102 935
VCUs	1 052 022

DNV GL verified that the non-permanence risk rating of the proposed project activity for this verification is 10% which is to be applied to the change in carbon stocks at this verification giving a total buffer equal to 102 935 tCO₂e. The buffer credits are calculated out from the net emission reductions from deforestation (changes in carbon stocks), being 10% of 1 029 346 = 102 935 tCO₂.The amount of VCUs to be issued would be **1 052 022 tCO₂e**.

4 CCB VERIFICATION CONCLUSION - CERTIFICATION STATEMENT

Det Norske Veritas (U.S.A.) Inc. (DNV GL) has performed the verification of the project activities that have been reported for the “ Kulera Landscape REDD+ Project for Co-Managed Protected Areas, Malawi” in Malawi relative to the Climate, Community and Biodiversity Project Design Standards Second Edition, December, 2008 (CCBS) for the period 01 October 2009 to 30 September 2013. The project proponents are responsible for the collection of data in accordance with the monitoring plan and the reporting of climate, community and biodiversity benefits. It is DNV GL ’s responsibility to express an independent verification statement on the reported climate, community, and biodiversity benefits from the project.

DNV GL conducted the verification on the basis of the monitoring methodology VM0006 (Version 2.0), the CCBS PDD dated April 2014, the CCB monitoring plan dated 8 November 2013, and the Project Implementation Report dated April 2014. The verification included: a) checking whether the provisions of the monitoring methodology and the monitoring plan were consistently and appropriately applied, b) collecting evidence supporting the reported data, and c) an assessment of whether the project activities that affected the community and biodiversity were having positive benefits.

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

The project proponents are: the Department of Parks and Wildlife (DPW), on behalf of the Government of Malawi; the Nyika-Vwaza Association (NVA); the Nkhotakota Wildlife Reserve Association (NAWIRA); and Terra Global Capital (TGC). DNV GL has confirmed that the project proponents have the right to all and any reductions generated by the Project.

DNV GL is able to verify with a reasonable level of assurance that the emission reductions from the “ Kulera Landscape REDD+ Project for Co-Managed Protected Areas, Malawi” during the period 01 October 2009 to 30 September 2013 amount to 1 052 022 tonnes of CO₂ equivalent after a 10% buffer pool deduction amounting to 102 935 tonnes CO₂ equivalent and has accomplished the climate, community, and biodiversity benefits for this monitoring period through its project activities.

In summary, it is DNV GL ’s opinion that the “ Kulera Landscape REDD+ Project for Co-Managed Protected Areas, Malawi” as described in the CCBS Project Implementation Report dated April 2014 meets all relevant CCBA requirements, at the Gold level for Climate Change Adaptation Benefits.

CCBS Compliance Checklist – Kulera Landscape REDD+ Project for Co-Managed Protected Areas, Malawi

General Section

Conformance

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 checked="" type="checkbox"/>	No	<input 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 GL 's assessment of response by project proponents
VCS specific			
CAR1	Please refer to VCS verification report.		
CCBS specific			
CAR1	<p>Requirement: CCB Standards Rules, Version June 21 2010</p> <p>Evidence: CCB PIR Version 1.0</p> <p>Non-Conformity:</p> <p>The PIR provides information on the implementation status of the project activities, but instead of reporting results of all indicators of the monitoring plan for the applicable monitoring period, it provides a description of the monitoring plan.</p>	<p>Tables have been added (Table 7 – Climate indicators, Table 8 – Community Indicators, Table 9 – Biodiversity Indicators), which list each project-level indicator for monitoring, targets for each, and, as available, the results to date for each indicator monitored. The tables also provide relevant comments for each project-level indicator regarding monitoring and reporting of climate, community, and/or biodiversity impacts. Additionally, sections for net positive climate, community, and biodiversity impacts have been added. The climate section cannot be completed until the new carbon calculations are completed.</p>	<p>The PIR now provides information on the indicators provided in the monitoring plan. DNV GL was able to confirm that social data to be gathered is clearly defined and is regarded as very useful for management purposes and for other in-depth analysis. Furthermore, the methods to gather it follows best practices /40/. Since baseline surveys have been conducted and since some data provides already net benefits, it will be possible to confirm that the project is delivering net community benefits. The intention of the project proponent was to process these data at every verification in order to demonstrate benefits, however, without the definition of a list of indicators. According to applicable guidance and best practices /40//41/, a short list of SMART and relevant indicators is desirable in order to show in a simple and transparent manner how the community impacts are monitored and demonstrate that the project is achieving net community benefits. DNV GL agrees that net-positive community benefits to the community and biodiversity has been</p>

CAR ID	Corrective action request	Response by project proponents	DNV GL 's assessment of response by project proponents
			<p>demonstrated in this verification, but that the definition of such indicators is necessary. Hence, FAR3 has been open requesting the project proponent to define these simple indicators in the next verification.</p> <p>CAR is closed.</p>
CAR2	<p>Requirement: CCB Standards Rules, Version June 21 2010 Evidence: CCB PIR Version 1.0 Non-Conformity: The PIR provides information on the implementation status of the project activities, however, it does not provide information on the implementation status of other general aspects of the project such as the institutional arrangements (e.g. G3: project entity in charge of the carbon credits commercialisation, implementation of procedure to resolve conflicts and grievances; G4: training provisions of staff, plan of communication of worker's safety, etc.)</p>	<p>Section 6 was created in the PIR in order to detail the implementation status of selected CCB standards. These include:</p> <p>G3: stakeholder engagement (Section 6.1, sub-section 6.1.1 – sub-section 6.1.7). Specifically, these sections discuss the involvement of communities in project design, communication and handling of conflicts and grievances, orientation and training, local community employment, relevant laws and regulations, and workers' safety.</p> <p>G4: management capacity (Section 6.2, sub-section 6.2.1 – sub-section 6.2.4). Specifically, these sections discuss the project proponents and their roles, the skills and experiences of the management team, the financial mechanisms for project implementation, and the financial health of the implementing organization.</p>	<p>The PIR has been revised, and it now provides an explanation of the implementation status of relevant aspects of the project such as institutional arrangements, etc. DNV GL confirmed that the provided information was accurate.</p> <p>CAR is closed.</p>

CAR ID	Corrective action request	Response by project proponents	DNV GL 's assessment of response by project proponents
		G5: legal status and property rights (Section 6.3, sub-section 6.3.1 – 6.3.5). Specifically, these sections discuss relevant laws and assurances, a demonstration of approvals and non-encroachment, a demonstration that the project will not require involuntary relocation, and a demonstration of clear title to carbon rights.	

CL ID	Clarification request	Response by project proponents	DNV GL 's assessment of response by project proponents
VCS specific			
CL	Please refer to VCS verification report.	Please refer to VCS verification report.	Please refer to VCS verification report.
CCBS specific			
CL1	Not applicable.	Not applicable.	Not applicable.
CL2	Not applicable.	Not applicable.	Not applicable.

FAR ID	Forward action request
FAR1	<p>During the site visit it was confirmed the existence of two examples of existing conflicts between the local communities and DPW:</p> <p>a) One caused by wild animals leaving the protected areas and causing disturbances in neighbouring villages.</p> <p>b) One caused by a reduction in the period to fish within the boundaries of one of the protected areas.</p> <p>During the site visit it was confirmed that there is an operating procedure in place for handling these disputes whereby the village chief informs DPW extension office of the issue who in turn informs DPW's management team in charge of the protected area who will take dully account of the issue and will try to resolve it and will duly inform the local communities</p>

FAR ID	Forward action request
	<p>of the final decision.</p> <p>Although it was confirmed that there is an operating procedure in place, the following issues were identified:</p> <ul style="list-style-type: none"> a) This procedure is not a standardised written procedure present in all protected areas, which includes instructions, responsibilities, timings for resolving the dispute and procedures for archiving and documenting all disputes; b) The local communities are not always acknowledgeable of this procedure and the timings involved for handling any complaint; c) The role of the Community Associations in this procedure is not clear; <p>As required by ¶10 of G3, the project proponent should analyze whether the existing procedures can be improved taking into account project's circumstances.</p>
FAR2	<p>DNV GL confirmed during the site visit that the Public Private Partnership Entity that will handle the revenues from the carbon credits has not been created yet. Confirmation that this entity is in place shall be verified during the second verification</p> <p>Although the PDD provides an adequate description regarding the project management, it is worth noting that the management in the first 4 years will differ significantly from what will be seen onwards. The reason is that with the arrival of carbon revenues a Public Private Partnership Entity will be in place in order to manage the carbon revenues and allocate them to the Associations, the DPW and other entities for the implementation of the different project activities and the overall functioning of the project. At the time of the project validation and first verification, this entity was not in place and DNV GL validated all G4 based on the management present in the first 4 years of project. A confirmation that the new management is in compliance with G4 will be required as part of the second verification</p>
FAR3	<p>DNV GL was able to confirm that social data to be gathered is clearly defined and is regarded as very useful for management purposes and for other in-depth analysis. Furthermore, the methods to gather it follow best practices /40/. Since baseline surveys have been conducted and since some data provides already net benefits, it will be possible to confirm that the project is delivering net community benefits. The intention of the project proponent was to process these data at every verification in order to demonstrate benefits, however, without the definition of a list of indicators. According to applicable guidance and best practices /40//41/, a short list of SMART and relevant indicators is desirable in order to show in a simple and transparent manner how the community impacts are monitored and demonstrate that the project is achieving net community benefits. Richards (2011) /40//41/ or Schreckenberget al. (2010) /42/ provides a list of methods that could be employed for defining key indicators, the latter related to protected areas. The project proponent is requested to define a list of community-related indicators at the time of the second verification.</p>
FAR4	<p>During the site visit, it was also confirmed that one way to convey the carbon revenues would be through the Associations,</p>

FAR ID	Forward action request
	<p>who would analyse and tentatively (depending on resources) finance projects proposed by NRCs (Natural Resource Committees, which are participated by various villages) through the Zones which group various NRCs. During the site visit one of the villages /58/ pointed out that a possible issue of this mechanism is that since projects are proposed by the majority of villages, only projects that would address a need of the majority of villages would be proposed, while those villages with specific problems not shared with the majority of villages would not have the opportunity address their needs. DNV GL understands that resources are always a constraint for reaching all villages, but would like to point out a possible issue with the aforementioned mechanism which could pose a barrier for reaching disadvantaged groups.</p>