



VCS VALIDATION REPORT

RIO BRAVO CLIMATE ACTION PROJECT

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Summary:

Det Norske Veritas (U.S.A.), Inc. (DNV) has performed a validation of the project activity “Rio Bravo Climate Action Project” in Belize to confirm that the project design, as documented, is sound and reasonable and meets the identified criteria. The validation was performed on the basis of VCSA requirements for the VCS project, as well as criteria given to provide for consistent project operations, monitoring and reporting.

The validation was conducted by means of document review, follow-up interviews and site inspection, and the resolution of outstanding issues. The review of the project design documentation and the subsequent follow-up interviews and site inspection have provided DNV with sufficient evidence to determine the fulfilment of stated criteria.

The project activity is to avoid planned deforestation through the acquisition and protection of forest lands threatened by agricultural conversion. The project has applied the VCS methodology “VM0007 REDD Methodology Modules”, version 1.1.

In summary, it is DNV’s opinion that the project activity “Rio Bravo Climate Action Project” as described in the VCS PD, dated 1 Dec 2011, meets all relevant VCSA requirements for the VCS project and correctly applies the VCS methodology “VM0007 REDD Methodology Modules”, version 1.1. Hence, DNV recommends the registration of the project as a VCS project activity.

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1 INTRODUCTION

The Nature Conservancy has commissioned Det Norske Veritas (U.S.A.), Inc.(DNV) to perform a validation of the Rio Bravo Climate Action Project in Belize (the project). This report summarizes the findings of the validation of the project, performed on the basis of VCSA criteria for the VCS project, as well as criteria given to provide for consistent project operations, monitoring and reporting. VCSA criteria refer to VCS program documents and policy announcements.

1.1 Objective

The purpose of a validation is to have an independent third party assess the project design. In particular, the project's baseline, monitoring plan, and compliance with relevant VCSA criteria are validated in order to confirm that the project design, as documented, is sound and reasonable and meets the identified criteria. Validation is a requirement for all VCS projects and is necessary to provide assurance to stakeholders of the quality of the project and its intended generation of the Verified Carbon Units (VCUs).

1.2 Scope and Criteria

The validation scope is defined as an independent and objective review of the VCS project document (VCS PD). The VCS PD is reviewed against the criteria stated in the VCS Version 3.1, the VCS AFOLU Requirements version 3.1 (sections 1 – 5 and those pertaining to the REDD project type), and the relevant documents and policy announcements made by the VCSA, including the VCS methodology “VM0007 REDD Methodology Modules”, version 1.1.

The validation does not include project consulting. However, requests for clarifications and/or corrective actions may have provided input for improvement of the project design.

1.3 Level of assurance

DNV provides reasonable assurance, as defined in VCS Version 3, that the “Rio Bravo Climate Action Project” meets VCSA criteria. To ensure complete transparency, a validation protocol check list is included in Appendix A. The validation protocol check list addresses all of the criteria that must be met for the VCS project. Any clarification or corrective actions raised have been included in the validation protocol.

In addition, DNV applies materiality of 5% in accordance with the requirements in VCS Version 3.1.

1.4 Summary Description of the Project

The “Rio Bravo Climate Action Project” is an Avoided Planned Deforestation project. The project began in September 1994 and is located in north-west Belize and contains 6,296 hectares (ha). The area within

the Project Boundary was purchased creating a clear land title held by the Program for Belize, the project proponent. The act of purchase removed the imminent threat of purchase by industrial scale agricultural farmers who would have proceeded to deforest the area.

The project will reduce GHG emissions through the acquisition and protection of forest lands threatened by agricultural conversion. Over the life of the project, the area will continue to be protected from deforestation. Selective logging will take place within a restricted area of the project during the life of the project. Avoidance of deforestation will take place through the purchase of land that would have been sold to industrial scale agricultural farmers. Program for Belize staff will monitor the area through ground surveys and communications with surrounding communities to prevent degradation through illegal logging.

Smartwood Certified selective logging will take place in the project scenario. Detailed logging plans will be created to minimize the impact of selective logging. No additional roads will be built within the project area. The selective logging conducted will be actively monitored and certified by Smartwood.

2 VALIDATION PROCESS

2.1 Method and Criteria

The validation consisted of the following three phases:

- A desk review of the project documents.
- Follow-up interviews with project stakeholders and site inspection where necessary.
- The resolution of outstanding issues and the issuance of the validation report and opinion.

The following sections outline each step in more detail.

Validation team

Role	Last Name	First Name	Country	Type of involvement					
				Desk review	Site visit	Reporting	Supervision of work	Technical review	TA 14.1 competence
Project Manager	Silon	Kyle	USA				✓		
Team Leader & VCS Validator & VCSA-Certified	Holland	Kyle	USA	✓	✓	✓	✓		✓

AFOLU Expert									
VCS Validator Under Observation	Caldwell	Ben	USA	✓	✓	✓			
VCS Technical Reviewer & VCSA- Certified AFOLU Expert	Smith	Gordon	USA					✓	✓

2.2 Document Review

The following tables list the key documentation that was reviewed during the validation.

2.3.1 Documentation provided by the project participants

/1/	The Nature Conservancy, Programme for Belize, and Winrock International: VCS PD for project activity “Rio Bravo Climate Action Project” in Belize and associated Annexes, Version 9 dated 1 Dec 2011 and previous versions.
/2/	The Nature Conservancy, Programme for Belize, and Winrock International: <i>Rio Bravo Climate Action Project Application of Baseline Report</i> dated 23 Nov 2011.
/3/	The Nature Conservancy, Programme for Belize, and Winrock International: <i>Rio Bravo Climate Action Project Summary of Land Tenure Information Report</i> dated 9 Sept 2011.
/4/	The Nature Conservancy, Programme for Belize, and Winrock International: <i>Rio Bravo Climate Action Project Agricultural Expansion and Management in Northern Belize Results of Survey</i> dated May 2011.
/5/	The Nature Conservancy, Programme for Belize, and Winrock International: <i>Rio Bravo Climate Action Project Definition of Project Boundary Report</i> dated 8 Sept 2011.
/6/	The Nature Conservancy, Programme for Belize, and Winrock International: <i>Rio Bravo Climate Action Project Analysis of the Potential of Natural Risks within the Rio Bravo Project Area</i> dated Sept 2011.
/7/	The Nature Conservancy, Programme for Belize, and Winrock International: <i>Non-Permanence Risk Report, Rio Bravo Climate Action Project</i> , Version 1 dated 8 Sept 2011.

2.3.2 Standards, methodologies, and other guidance by the VCSA

/8/	VCSA: VCS Standard, version 3.1.
/9/	VCSA: Methodology “VM0007 REDD Methodology Modules”, version 1.1.
/10/	VCSA: Guidance from Carolyn Ching, RE: AFOLU Risk Assessment Clarification dated 11 Oct 2011.
/11/	VCSA: Agriculture, Forestry and Other Land Use (AFOLU) Requirements, version 3.1 dated 19 Oct 2011
/12/	VCSA: AFOLU Non-Permanence Risk Tool, version 3.0 dated 8 March 2011
/13/	VCSA: Tool for the Demonstration and Assessment of Additionality in VCS Agriculture, Forestry and Other Land Use (AFOLU) Project Activities, version 1.0 dated 23 Nov 2010

2.3.3 Documentation used by DNV to validate / cross-check the information provided by the project participants

/14/	IPPC: <i>2006 IPCC Guidelines for National Greenhouse Gas Inventories</i>
/15/	DNV: <i>VCS Methodology Element Report Revision of VMD00015 Methods for Monitoring of GHG Emissions and Removals</i> , Version 1 dated 22 Nov 2011.
/16/	Government of Belize, Ministry of Finance: Official letter confirming government support for the Rio Bravo Carbon Sequestration Pilot Project dated 22 Aug 1995.
/17/	Government of Belize, Ministry of Foreign Affairs: Official letter confirming government support for the Rio Bravo Conservation and Management Area – Joint Implementation Pilot Project dated 28 Oct 1994.
/18/	New River Enterprises: Land Purchase Agreement dated 20 July 1995.
/19/	Government of Belize: Official Land Certificates for Block 14, Parcel 3 and Block 13, Parcel 6 dated 2 Jan 1996.
/20/	Landfolio Registry: Certified True Copies of Clear Title for Block 14, Parcel 3 and Block 13, Parcel 6 dated 23 Sept. 2011.
/21/	New River Enterprises: Letter confirming prior attempts by agriculturalists to acquire the project area dated 28 Oct. 1994.
/22/	John Hertular, Licensed Land Surveyor: Letter confirming land prices dated 31 Oct. 1994.
/23/	Armin Cansino: <i>Report on Land Tenure Information, Orange Walk and Cayo Districts</i> dated April 2009
/24/	Programme for Belize, The Nature Conservancy and Wisconsin Electric: <i>The Rio Bravo Carbon</i>

	<i>Sequestration Pilot Project Comprehensive Agreement, The USIJI Pilot Project Proposal</i> dated 4 Nov. 1994.
/25/	Programme for Belize, The Nature Conservancy and Wisconsin Electric: <i>Comprehensive Agreement for The Rio Bravo Carbon Sequestration Pilot Project</i> dated 1 Nov 1995.
/26/	Programme for Belize, The Nature Conservancy and Wisconsin Electric: <i>First Amendment to Comprehensive Agreement for The Rio Bravo Carbon Sequestration Pilot Project</i> dated 16 March 1999.
/27/	Six Financial Participation Commitments Concerning The Rio Bravo Carbon Sequestration Pilot Project dated on or about 25 May 1995.
/28/	The Nature Conservancy: Memorandum on request for a carbon sequestration loan for Rio Bravo, Belize, dated 18 Aug. 1995.
/29/	The Nature Conservancy: Memorandum on land preservation fund, loan policy, dated 21 Oct. 1995.
/30/	Programme for Belize: <i>Rio Bravo Conservation and Management Area Management Plan (Edition V) 2006 – 2010</i> dated July 2006.
/31/	Chave et al.: <i>Tree allometry and improved estimation of carbon stocks and balance in tropical forests</i> , Oecologia, dated 22 June 2005.
/32/	The Programme for Belize: Articles of Association dated 8 Feb. 1991.
/33/	Programme for Belize: <i>Rio Bravo Conservation and Management Area Sustainable Timber Programme Forest Management Plan and Operational Guidelines 2006 – 2010</i> , dated February 2006.

2.3 Interviews

On 16 Sept. 2011 DNV visited Belize, Belize City, Belopan and the project area to perform interviews with project stakeholders.

	Date	Name	Organization	Topic
/34/	12 Sept. 2011	Alex Quintero	The Nature Conservancy	Review project documentation and validation plan
/35/	12 Sept. 2011	Sarah Walker	Winrock International	
/36/	12 Sept. 2011	Ramon Pachero	Programme for Belize	

/37/	15 Sept. 2011	Alex Quintero	The Nature Conservancy	Review project documentation
/38/	15 Sept. 2011	Sarah Walker	Winrock International	
/39/	15 Sept. 2011	Ramon Pachero	Programme for Belize	
/40/	15 Sept. 2011	Herbert Haylock	Programme for Belize	
/41/	15 Sept. 2011	Edilberto Romero	Programme for Belize	
/42/	15 Sept. 2011	Atemio Osono	Ministry of Finance	Government support, finance and applicable laws
/43/	15 Sept. 2011	Maria Cooper	Ministry of Finance	
/44/	15 Sept. 2011	Alejandro Martinez	The Nature Conservancy	
/45/	15 Sept. 2011	Beverly Castillo	Ministry of Natural Resources	Government support, finance, baseline scenario and applicable laws
/46/	15 Sept. 2011	Colin Young	Ministry of Natural Resources	
/47/	16 Sept. 2011	Joseph Boris Loskot	New River Enterprises	Baseline scenario
/48/	16 Sept. 2011	Miroslava Loskot Bardaza	New River Enterprises	
/49/	16 Sept. 2011	Susano Blanco	Local community member	Baseline scenario, socio-economic impacts
/50/	16 Sept. 2011	Armin Cansino	Ministry of Lands (former)	Baseline scenario
/51/	16 Sept. 2011	Daniel Cowo	Local community member	Baseline scenario, socio-economic impacts
/52/	16 Sept. 2011	Blanca Torres	August Pine Ridge RCS	Baseline scenario, socio-economic impacts
/53/	16 Sept. 2011	Ramino Peralta	St. Michael RCS	Baseline scenario, socio-economic impacts

/54/	16 Sept. 2011	Armando Peralta	St. Michael RCS	
/55/	16 Sept. 2011	Frank Krah	Local community member	Baseline scenario, socio-economic impacts
/56/	16 Sept. 2011	Abe Rempel	Local community member	Baseline scenario, socio-economic impacts
/57/	17 Sept. 2011	Ramon Pacheco	Programme for Belize	FSC selective logging, project emissions, plot measurement
/58/	17 Sept. 2011	Alex Quintero	The Nature Conservancy	
/59/	17 Sept. 2011	Sarah Walker	Winrock International	
/60/	17 Sept. 2011	Ramon Pacheco	Programme for Belize	Plot allocation, plot measurement
/61/	17 Sept. 2011	Alex Quintero	The Nature Conservancy	
/62/	17 Sept. 2011	Sarah Walker	Winrock International	
/63/	17 Sept. 2011	Unidentified fieldworker	Programme for Belize	
/64/	17 Sept. 2011	Unidentified fieldworker	Programme for Belize	
/65/	17 Sept. 2011	Unidentified fieldworker	Programme for Belize	
/66/	17 Sept. 2011	Unidentified fieldworker	Programme for Belize	
/67/	18 Sept. 2011	Ramon Pacheco	Programme for Belize	Plot allocation, plot measurement
/68/	18 Sept. 2011	Alex Quintero	The Nature Conservancy	
/69/	18 Sept. 2011	Sarah Walker	Winrock International	
/70/	18 Sept. 2011	Unidentified fieldworker	Programme for Belize	
/71/	18 Sept. 2011	Unidentified fieldworker	Programme for Belize	

/72/	18 Sept. 2011	Unidentified fieldworker	Programme for Belize	
/73/	18 Sept. 2011	Unidentified fieldworker	Programme for Belize	
/74/	18 Sept. 2011	Ramon Pacheco	Programme for Belize	Leakage, baseline scenario, project emissions, risk buffer determination, plot allocation, wood products
/75/	18 Sept. 2011	Alex Quintero	The Nature Conservancy	
/76/	18 Sept. 2011	Sarah Walker	Winrock International	
/77/	18 Sept. 2011	Edilberto Romero	Programme for Belize	
/78/	19 Sept. 2011	Unidentified mechanized farmer	Local community member	Baseline scenario, socio-economic impact
/79/	19 Sept. 2011	Unidentified mechanized farmer	Local community member	Baseline scenario, socio-economic impact
/80/	19 Sept. 2011	Unidentified mechanized farmer	Local community member	Baseline scenario, socio-economic impact
/81/	19 Sept. 2011	Unidentified mechanized farmer	Local community member	Baseline scenario, socio-economic impact
/82/	07 Nov. 2011	Alex Quintero	The Nature Conservancy	Review and discuss findings
/83/	07 Nov. 2011	Sarah Walker	Winrock International	
/84/	16 Nov. 2011	Alex Quintero	The Nature Conservancy	Review and discuss findings
/85/	23 Nov. 2011	Alex Quintero	The Nature Conservancy	Review calculations of baseline emissions, project emissions, leakage and uncertainties
/86/	23 Nov. 2011	Sarah Walker	Winrock International	

2.4 Site Inspections

A site visit was conducted 15 Sept 2011 to 20 Sept 2011 with the objective of acquiring evidence to determine whether a positive validation opinion should be given. During the site visit, interviews were conducted with project stakeholders, government officials and local community members to confirm statements by the project proponents and to identify potential misstatements. Carbon inventory plots were also re-measured, but these methods and results are provided in a separate verification report.

Evidence was collected at the Programme for Belize offices in Belize City, government offices in Belmopan, offices in Orange Walk, local mestizo communities near the project area, agriculturalist communities near the project area, the project area, and Programme for Belize offices near the project area.

The following table is the agenda for the site visit which shows dates, times, involved parties and audit activities related. The validation plan was presented to the client and agreed upon prior to the site visit. The following agenda accurately reflects the audit activities conducted during the site visit. Additional validation notes are maintained by DNV and include confidential contact information for interviewees.

Time	Involved Parties	Audit Activities	Comments
Day 1 (Belize City and Belmopan) Thursday, 15/09/2011			
9:00 AM	✓ All parties	✓ Introduction	Introductions and revisions to verification plan
9:30 AM	✓	✓ Overview of Project	Brief overview of project by Project Proponent(s)
10:30 AM	✓	✓ Project Activities	
11:00 AM	✓	✓ Non-Permanence Risk	
12:00 PM	✓	✓ Lunch	
2:00 PM 3:00 PM	✓ Ministry of Finance ✓ Ministry of Natural Resources ✓ Ministry of Land	✓ Verification of Carbon Rights	Government officials, offices in Belmopan 2pm-Finance 3pm Natural Resources
Day 2 (Belize City and Project Area) Friday, 16/09/2011			
7:30 AM	✓ DNV audit team	✓ Audit Team Meeting	
8:30 AM – 10:00 PM	✓ All parties	✓ Project Review	
10:00 AM – 12:00 PM	✓	✓ Stakeholder Interviews	Meetings with stakeholders en route to Project Area
12:00 PM	✓	✓ Lunch	In route
12:00 PM – 6:00 PM	✓	✓ Stakeholder Interviews	Meetings with stakeholders en route to Project Area
Day 3 (Project Area) Saturday, 17/09/2011			
8:30 AM	✓	✓ Field Tour of Project Area	Tour and introduction to the project area, verification of forest types
11:30 AM	✓	✓ Lunch	In field
12:00 PM – 6:00 PM	✓	✓ Field Verification	Verification of plot measurements
Day 4 (Project Area) Sunday, 18/09/2011			

8:00 AM	✓	✓ Field Verification	Continued verification of plot measurements
12:00 AM	✓	✓ Lunch	In field
12:30 PM	✓	✓ Field Verification	
Day 5 (Project Area and Belize City)			
Monday, 19/09/2011			
9:00 AM	✓	✓ Stakeholder Interviews	Meetings with local stakeholders, tour of local communities
1:00 PM	✓	✓ Lunch	
	✓	✓ Travel to Belize City	
2:00 PM – 4:00 PM	✓	✓ Stakeholder Interviews	
4:30 PM	✓ DNV audit team	✓ Audit Team Meeting	
6:30 PM	✓	✓ Closing Meeting	Review of audit and draft findings
7:30 PM	✓	✓ Dinner	Traditional Chinese dinner

2.5 Resolution of Any Material Discrepancy

The objective of this phase of the validation was to resolve any outstanding issues that needed be clarified prior to DNV's positive conclusion on the project design. In order to ensure transparency, a validation protocol was customized for the project. The protocol shows in a transparent manner the criteria (requirements), means of verification and the results from validating the identified criteria. The validation protocol serves the following purposes:

- It organizes, details and clarifies the requirements a VCS project is expected to meet.
- It ensures a transparent validation process where the validator will document how a particular requirement has been validated and the result of the validation.

The completed validation protocol check list for the project "Rio Bravo Climate Action Project" is enclosed in Appendix A to this report.

A corrective action request (CAR) is issued if one of the following occurs:

- The project participants have made mistakes that will influence the ability of the project activity to achieve real, measurable additional emission reductions.

- The VCS requirements have not been met.
- There is a risk that emission reductions cannot be monitored or calculated.

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

3 VALIDATION FINDINGS

3.1 Project Design

3.3.1 Project Proponent

The project proponent has been identified as Programme for Belize. Originally the project proponents were the initial buyers of credits: WE Energies, Detroit Edison Corporation, Utilitree, Duke Energy and PacifiCorp (see CL 2). Based on evidence obtained during the audit, the Programme for Belize has overall control and responsibility for the project. Contact information for the project proponent is given below.

Programme for Belize
Edilberto Romero
PO BOX 749
1 Eyre Street
Belize City, Belize
Tel: (501) 227-5616

3.3.2 Project Activity and Eligibility of the Project

The primary project activity is the acquisition and protection of forest lands threatened by agricultural conversion. Another project activity is FSC-certified selective logging during the project lifetime. Based on evidence collected during the audit, outcomes of these activities alter conditions identified in the baseline scenario and result in GHG emissions reductions or removals. Evidence includes interviews with local community members, government officials, New River Enterprises and first-hand observation.

The project sectorial scope is 14 “Agriculture Forestry and Other Land Use” and the project type is Avoided Planned Deforestation. Technologies and measures implemented include the acquisition and protection of forest lands threatened by agricultural conversion. The project is eligible for crediting as it is an AFLOU project with a project start date prior to 01 January 2002 using a new VCS methodology VM0007 approved on 03 December 2010. The project is eligible for crediting if validation and verification are completed on or before 03 December 2011.

The project is located in north-west Belize in the Orange Walk district. The project location has been confirmed during the site visit.

The project start date is 01 January 1996 as evidenced by /15/, /16/ and /17/. This is the date when the project area was registered to the project proponent and thus the primary project activity was implemented that resulted in GHG emissions reductions or removals. The project lifetime is 40 years.

The project area is forested per the CDM definition for Belize. This was observed during the site visit and by inspecting remotely-sensed satellite imagery.

3.3.3 Project Scale and Crediting Period

The project scale is not a mega-project. This is evidenced by the ex-ante estimates of GHG emissions reductions or removals provided in the PD which are less than 1,000,000 tCO₂e/yr. The project crediting period start date is 01 January 2002 and the crediting period ends on 31 December 2021. The project crediting period start date corresponds to the commencement of the first monitoring period. The total estimated GHG emissions reductions or removals over the project crediting period before the VCS risk buffer is applied is 1,899,389 tCO₂e. After the risk buffer deduction of 262,916 tCO₂e is applied, total estimated GHG emissions reductions or removals over the project crediting period is 1,636,473 tCO₂e.

3.3.4 Project compliance with applicable laws, statutes and other regulatory frameworks

The project complies with applicable laws, statutes and other regulatory frameworks. Evidence to this effect includes FSC-certification and official government letters as /13/ and /14/. Evidence to the contrary was not observed during the audit.

3.3.5 Ownership and other programs

Proof of title was confirmed with Official Land Certificates as /16/. Because these certificates are many years old, updated title abstracts were requested to confirm proof of title and are presented as /17/ (also see CL 3).

No evidence was observed to suggest the project is affected by other emissions trading programs or other binding limits. A brief Internet search did not indicate that the project is participating in other GHG programs. The project is however managed under an FSC certificate which is not a GHG program. No evidence was discovered that suggests this project has been rejected by other GHG programs. Project Proponents participated in the US Department of Energy's 1605(b) reporting program from 1997 – 2004 which does not impose binding limits on the project.

3.3.6 Additional information relevant to the project

The project is not grouped.

The original carbon project was designed with two components: Component A involved the purchase of specific tracts of forested land to prevent the conversion of that land to agriculture; and Component B which refers to the implementation of a sustainable timber protocol for the broader Rio Bravo

Conservation and Management Area (beyond the defined Project Boundaries). By maximizing timber values and implementing sustainable forest uses, the project reduces the threat of leakage by providing surrounding communities with the economic incentive to reverse current land-use trends and to maintain forest cover. The project estimates leakage from activity shifting for avoided planned deforestation using a default value. This method is meant to reflect all possible leakage at a national level (throughout Belize), and thus also captures market driven leakage.

The following documents references in the PD are commercially sensitive and cannot be shared publicly without express consent of The Nature Conservancy and Programme for Belize:

- Annex B: Government Letters of Support
- Annex K: Rio Bravo Carbon Sequestration Pilot Project Comprehensive Agreement
- Annex M: Participants Memorandum of Understanding: Programme for Belize, The Nature Conservancy and WEPCO
- Annex N: TNC Internal Memos: TNC Land Preservation Fund Policy; TNC Internal Memo: Request for Carbon Sequestration Loan for Programme for Belize

3.2 Application of Methodology

3.3.1 Title and Reference

The project has applied VCS methodology “VM0007 REDD Methodology Modules”, version 1.1 /9/.

3.3.2 Applicability

Table 3 located in the PD addresses the applicability conditions of methodology. Based on evidence observed during the audit, these conditions have been satisfied. Evidence includes interviews with government officials, local community members, supplemental data (including remotely-sensed data) and supplemental documentation /18/ /19/ /20/ /27/.

Applicability Condition	DNV Assessment
Land in the project area has qualified as forest at least 10 years before the project start date (VCS 2007.1, 2008 p 16)	Area is naturally covered by forest and has been forested historically
The project area can include forested wetlands (such as bottomland forests, floodplain forests, mangrove forests) as long as they do not grow on peat. Peat shall be defined as organic soils with at least 65% organic matter and a minimum thickness of 50 cm. If the project area includes a forested wetlands growing on peat (e.g. peat swamp forests), this methodology is not applicable.	Project area does not include any peatland soils
Project proponents must be able to show control over the project area and ownership of carbon rights for the project area at the time of verification.	The project proponent has clear ownership of the project area
Baseline deforestation and baseline forest degradation in the	The baseline is Planned Deforestation

project area fall within one or more of the following categories: Unplanned deforestation, Planned deforestation, Degradation through extraction of wood for fuel (fuelwood and charcoal production)	
Baselines shall be renewed every 10 years after the start of the project except where triggers lead to a more frequent renewal.	The baseline has been renewed/revised twice since the project start date
All land areas registered under the CDM or under any other carbon trading scheme (both voluntary and compliance-orientated) must be transparently reported and excluded from the project area. The exclusion of land in the project area from any other carbon trading scheme shall be monitored over time and reported in the monitoring reports	No lands are registered under any other carbon trading scheme
If land is not being converted to an alternative use but will be allowed to naturally regrow (i.e. temporarily unstocked), this framework shall not be used	Baseline land use would have been industrial agriculture. Baseline lands converted to agriculture in the surrounding area have not been allowed to regrow
Where post-deforestation land use constitutes reforestation this framework shall not be used.	Baseline land use would have been industrial agriculture. Baseline lands converted to agriculture in the surrounding area have not been allowed to regrow
Leakage avoidance activities shall not include: Agricultural lands that are flooded to increase production (e.g. paddy rice), Intensifying livestock production through use of “feed-lots” and/or manure lagoons	Leakage avoidance activities do not include any specified.
Uncertainty calculated using X-UNC must be $\leq 20\%$ of net emission reductions at the 90% confidence level or this framework shall not be used	This has been confirmed in the calculations
Conversion of forest lands to a deforested condition must be legally permitted	Conversion to agricultural land is legally permitted as evidenced by /44/ and /45/.
Documentation must be available to clearly demonstrate with credible evidence and documentation that indeed the land would have been converted to non-forest use if not for the REDD project.	Credible evidence has been observed including /17/, /22/, /44/, /45/, /46/, /47/ and a time series of Landsat imagery between 1994 and 2005.
If degradation is caused by either illegal or legal tree extraction for timber, this framework cannot be used.	The baseline is deforestation, not degradation.

3.3.3 Project Boundary

The project area was validated by evidence of Official Land Certificates /16/. Boundaries on emissions sources and carbon pools are presented in the following tables. These boundaries have been validated by interviews conducted during the site visit and by physical inspection of the project area. It is DNV's opinion that the selected boundaries are conservative and justified.

Sources	Gas	Included/Excluded	Justification / Explanation of choice
Biomass burning	CO ₂	Excluded	However, carbon stock decreases due to burning are accounted as a carbon stock change
	CH ₄	Included	Conservative to exclude in the baseline. Will be included in the project case if fire occurs
	N ₂ O	Included	
Combustion of fossil fuels	CO ₂	Excluded	Neglected from baseline and project accounting
	CH ₄	Excluded	Potential emissions are negligibly small
	N ₂ O	Excluded	Potential emissions are negligibly small
Use of fertilizers	CO ₂	Excluded	Potential emissions are negligibly small
	CH ₄	Excluded	Potential emissions are negligibly small
	N ₂ O	Excluded	Neglected from baseline and project accounting

Carbon pools	Included / Excluded	Justification / Explanation of choice
Above-ground	Included	Major carbon pool subjected to the project activity.
Below-ground	Included	Below-ground biomass stock is expected to be maintained due to the implementation of the project activity.
Dead-wood	Excluded	Deadwood can be expected to decrease more or increase less in the baseline, relative to the project scenario. Therefore, based on the applicability conditions of the methodology, this pool can be conservatively omitted.
Harvested wood products	Included	Is greater in the baseline than in the project scenario, therefore it is included
Litter	Excluded	Litter can be expected to decrease more or increase less in the baseline, relative to the project scenario. Therefore, based on the applicability conditions of the methodology, this pool can be conservatively omitted.
Soil organic carbon	Included	Soil organic carbon is expected to decrease in the baseline. It is included since there will be significant soil carbon loss.

3.3.4 Baseline Scenario

The identified baseline scenario of the project is sanctioned deforestation caused by industrial scale agricultural communities conducting mechanized farming, thus planned deforestation. Evidence of this baseline scenario was observed during the site visit and was numerous: interviews with government officials in Belmopan, interviews with local community members (including practicing agriculturalists and mechanized farmers), an interview with Armin Cansino (former Land Commissioner), an interview with New River Enterprises, a letter from New River Enterprises and physical evidence.

Government officials in the Ministry of Natural Resources confirmed that no laws prevented the conversion of forest to agriculture as of the project start date. In fact, what few laws exist today are not enforced. Armin Cansino, who published a report on land tenure in the same district as the project area, confirmed with overwhelming evidence trends in land value related to land use change to mechanized agricultural production and increasing demand for agricultural land. This evidence is provided in /22/ which shows a rapid shift to agriculture in the region and increasing land prices for lands suitable to mechanized agriculture.

Local community members near the project area corroborated the baseline scenario is mechanized farming. Forest has been cleared for mechanized farming literally across the road from the project area. Mechanized farmers practicing near the project area confirmed that the entire project area would have been planted to beans, corn, sorghum or rice.

A letter and interviews with members of New River Enterprises who sold the project area to Programme for Belize indicated that mechanized agriculturalists repeatedly approached them for land sale. If the Programme for Belize had not purchased the land, New River Enterprises confirms it would have been sold to mechanized agriculturalists as the tax burden of holding the land made doing so unprofitable.

3.3.5 Additionality

The approved “Tool for the Demonstration and Assessment of Additionality in VCS Agriculture, Forestry and Other Land Use (AFOLU) Project Activities” version 1.0, was used to demonstrate project additionality. Clearly the project was designed and implemented as a climate change project from its inception as evidenced by /13/, /14/, /22/ and /23/. On February 3, 1995, The Rio Bravo Carbon Sequestration project was accepted by the United States Initiative for Joint Implementation Secretariat clearly demonstrating that it was originally designed and implemented as a climate change project. Based on interviews conducted with the project proponent, the project proponent engaged Winrock International (an independent carbon monitoring expert) to assess and quantify the project’s baseline scenario and net GHG emissions reductions or removals.

Overwhelming evidence collected during the site visit confirms that the selected baseline scenario is justified. High-technology (mechanized) agriculture would have been the end land use without the project activity in the absence of the project. Alternative baseline scenarios are presented in the PD which include the following:

Baseline Scenario	DNV Assessment
Scenario 1. Continuation as unprotected forested area: The land is not sold and the original land owner does not implement any uses to land. The lands within the project boundary remain as forest.	This is unlikely as confirmed with a letter by the previous landowner (/17/) and interviews with the previous landowner and others in the region (/44/ /45/ /46/ /47/ /48/ /49/ /54/ /55/ /77/ /78/ /79/ /80/)
Scenario 2. Conversion from unprotected area to government funded protected area: Government of Belize purchases land from previous land owner, changes legal protection on land, and provides funding to effectively protect forested areas.	This is unlikely as confirmed by government officials /41/ /42/ /44/ and /45/.
Scenario 3. Conversion from unprotected area to selective logged forested area: The land is purchase by logging company. Additional logs are removed from forested lands for logging.	As observed during the site visit, most of the commercial value of the forest had been extracted by the previous landowner. The prior owner confirmed that not other logging companies were interested in purchasing the land (/46/).
Scenario 4. Conversion from unprotected area to unplanned, small holder cultivation: Lands are sold over time to small holder agriculturalists who practice low-technology cultivation.	A report (/22/) and interviews (/49/ /50/) confirmed that land values are too high for small scale agriculturalists to afford new land of the size of the project area. Specific questions were asked about developers who might have purchased the land then subdivided into small holdings. It was confirmed that this sort of development does not take place in this region of Belize and definitely not for ultimate conversion to small scale agriculture. An interview with the prior landowner confirmed that no small-scale agriculturalists were actively pursuing the purchase of this land (/46/).
Scenario 5. Conversion from unprotected forested area to privately protected area: Conservation organization purchases lands and maintains forested area. Low level selective logging in small areas to fund resources required to continue forest protection.	Based on evidence observed during the site visit, low-level selective logging would not sustain revenue adequate to maintain forest protection.
Scenario 6. Conversion from unprotected area to high-technology agricultural lands: The project lands are converted from forest to agricultural lands using mechanized farming techniques or grazing lands.	As observed during the site visit, the vast land use in the region is mechanized agriculture. This baseline scenario was confirmed repeatedly by independent reports and interviews (/20/ /21/ /22/ /41-55/ and /77-80/).

Upfront investment to acquire and protect the project area was a barrier and was funded through a combination of a major carbon-financed loan, minor private investment and minor government tax mitigation. Although the project start date is historic, carbon financing was the major funding source for the acquisition of the project area as evidenced by /24/ /25/ /26/ /27/ and /28/. This barrier was also confirmed by interviews with government officials at the Ministry of Finance. Other sources of funding such as debt funding, international capital markets, or credit were not viable options for the project proponent in a small – middle income country like Belize with limited options for collateral or dependable revenue streams.

As evidenced by /19/, /20/ and interviews with local community members, high-technology agriculture is profitable. Mechanized agriculturalists have largely funded land use conversion to agricultural in the region and driven land prices up. The project proponent was forced to wait until a suitable and acceptable program was developed to generate verified emissions reductions. The REDD methodology VM0007 was approved by VCS in December of 2010.

Initially, investment in the project was carbon financing (/27/ /28/ and /36/). As of the project start date, the project investors expected to own the rights to the credits issued by the project. Subsequent to the initial investment, project investors decided to donate credits to the Nature Conservancy for sale on the voluntary market to pay for the future management costs of the project.

A barriers analysis (Step 3) was conducted instead of an investment analysis (Step 2) per the tool. Nevertheless, a NPV analysis was conducted as part of the risk buffer determination and shows that revenue from selective logging is low compared to administrative costs. The NPV has been assessed to be negative without carbon revenues.

It is very apparent that agriculture is common practice in the region. Limited conservation efforts have been made in Belize at significant cost, including other Programme for Belize land holdings.

It is the opinion of DNV that the selected baseline scenario is the most likely baseline scenario and that the project is additional based on the barriers analysis and common practice. DNV's opinion is that the project would not have been viable if carbon financing was not obtained to acquire the project area and it is not common practice to conserve land in this region of Belize.

3.3.6 Quantification of GHG Emission Reductions and Removals

Quantification of baseline emissions, project emissions, leakage and uncertainties has been made in accordance with the methodology, the monitoring plan and associated deviations. Calculations are summarized in /1/ and /2/ while actual calculations are provided in Annexes L, O and Q of the PD. In addition to independent review, calculations were reviewed by conference call with The Nature Conservancy and Winrock International on 23 November 2011.

The following modules were applied from the selected methodology VM0007: Module	DNV Assessment
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VMD0001, Estimation of carbon stocks in the above- and belowground biomass in live tree and non-tree pools (CP-AB), v1.0	Carbon stocks were assessed per the module and deviations. The root-to-shoot ratio was obtained from IPCC defaults per the module.
VMD0004, Estimation of stocks in the soil organic carbon pool (CP-S), v1.0	Carbon stocks were assessed per the module. Default values for baseline carbon stocks were used from IPCC GPG per the module.
VMD0006, Estimation of baseline carbon stock changes and greenhouse gas emissions from planned deforestation (BL-PL), v1.0	Changes in baseline carbon stocks were assessed per the module.
VMD0009, Estimation of emissions from activity shifting for avoided planned deforestation (LK-ASP), v1.0	Default values for emissions from activity shifting leakage were used per the module.
VMD0015, Methods for monitoring of greenhouse gas emissions and removals (M-MON), v2.0	The module was correctly applied to monitor project emissions. Default values for the Logging Damage Factor were used. A deviation was granted for quantifying emissions from illegal logging.
VMD0016, Methods for stratification of the project area (X-STR), v1.0	The module was correctly applied.
VMD0017, Estimation of uncertainty for REDD project activities (X-UNC), v1.0	The module was correctly applied.

Project emissions are monitored from selective logging, illegal logging and natural disturbance per VMD0015. Leakage is assessed using default parameters from VMD0009 based on potential changes in commodity production (see CAR 4 and CL 11). The buffer level was calculated at 3.5% after several iterations of findings, defaulting to the minimum 10% (see CL 8, CL 9, CL 10).

The crediting period start date is 01 January 2002 and the crediting period length is 20 years through 31 December 2022. The baseline is renewed every ten years from the project start date in 2006 and 2016. The average annual net GHG emissions reductions or removals are 94,970 tCO₂e derived from an estimated gross total of 1,899,389 tCO₂e over the twenty-year crediting period. The estimated net total is 1,636,473 tCO₂e after reductions for buffer pool allocation and estimated leakage.

3.3.7 Methodology Deviations

Four deviations were requested from the methodology related to the monitoring plan, the procedures for monitoring and measuring the carbon pools. These deviations were either immaterial or resulted in conservative estimates of carbon pools. Deviations and DNV's assessment of the deviations are reported as follows:

Methodology Deviation	Assessment
VMD0001 “Estimation of carbon stocks in the above and belowground biomass in live tree and non-tree pools”. “II Procedures, Frequency of measurement for baseline above and belowground biomass stocks” “Measurements of initial stocks employed in the baseline must take place within ± 5 years of the project start date, for simplicity referred to here as stocks at $t=0$” “Above- and belowground biomass stock estimates are valid in the baseline (i.e. treated as constant) for 10 years, after which they must be re-estimated from new field measurements.” It is requested that years since the project start date be allowed to be increased to ± 6 years. The project start is date: 15 Sept 1994, and although field measurements were taken in 1995, the measurement methods in 2000 are more consistent with other field measurement methods used elsewhere. In addition, additional field measurements were taken in the area surrounding the project area, providing a better estimate of carbon stocks.	The project start date is 01 January 1996. Field measurements obtained in 2000 are within 5 years of the project start date so this requested deviation is immaterial.

VMD0001 “Estimation of carbon stocks in the above and belowground biomass in live tree and non-tree pools”. “II Procedures, Frequency of measurement for baseline above and belowground biomass stocks” “Above- and belowground biomass stock estimates are valid in the baseline (i.e. treated as constant) for 10 years, after which they must be re-estimated from new field measurements. For each stratum, where the re-measured estimate is within the 90% confidence interval of the t=0 estimate, the t=0 stock takes precedence and is re-employed, and where the remeasured estimate is outside the 90% confidence interval of the t=0 estimate, the new stock estimate takes precedence and is used for the subsequent period.” The start date of the project is 15 Sept 1994. Field measurements were taken in 2000. No field measurements were at the ‘baseline renewal period’ in 2004 since this project took place prior to that rules existence. Therefore it is requested that the field measurement data taken in 2000 be allowed to be used for the second baseline period.	The project start date is 01 January 1996. The first baseline renewal period is then 2006. The field measurements were made in 2000 and are therefore valid until 2010 without a deviation. Therefore this deviation applies to verification events subsequent to 2010. As of this report, no emissions have been verified subsequent to 2010 so this deviation is currently immaterial. A Forward Action Request has been issued to obtain field measurements per the methodology prior to the next verification event (see FAR 1). The Climate Action Reserve specifies a 12-year re-measurement cycle. This length of time seems reasonable and conservative if enhancements are not claimed by the project proponents and project emissions have been adequately accounted. If new field measurements are obtained within 12 years, by the end 2012, then this deviation should be granted for subsequent verifications.
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VMD0015, Section 5.2.2.1 Degradation through extraction of trees for illegal timber or fuelwood and charcoal

“ADeg,i shall be sampled by surveying several transects of known length and width across the access-buffer area (equal in area to at least 1% of ADeg,i) to check whether new tree stumps are evident or not. If there is little to no evidence that trees are being harvested (see next paragraph on how to estimate emissions and use tool T-SIG to determine if significant or not) then degradation can be assumed to be zero and no monitoring is needed. This limited sampling must to be repeated each time the PRA indicates a potential for degradation.”

If the limited sampling does provide evidence that trees are being removed in the buffer area, then a more systematic sampling must be implemented. The sampling plan must be designed using plots systematically placed over the buffer zone so that they sample at least 3% of the area of the buffer zone (ADeg,i). The diameter of all tree stumps will be measured and conservatively assumed to be the same as the DBH. If the stump is a large buttress, identify several individuals of the same species nearby and determine a ratio of the diameter at DBH to the diameter of buttress at the same height above ground as the measured stumps. This ratio will be applied to the measured stumps to estimate the likely DBH of the cut tree. The above and below ground carbon stock of each harvested tree must be estimated using the same allometric regression equation and root to shoot ratio used in the module for estimating the carbon pool in trees (CP-AB) in the baseline scenario . The mean above and below ground carbon stock of the harvested trees is conservatively estimated to be the total emissions and to all enter the atmosphere. This sampling procedure shall be repeated every 5 years and the results annualized by dividing the total emissions by five.”

Since incomplete sampling of illegal logging existing from the start of the project, it is requested that a more conservative approach be implemented. Under this approach, using the forest inventory data, the average biomass of mahogany and cedar is estimated. It is then assumed that the biomass of all the mahogany and cedar trees within ADeg,i are harvested and emitted in the first year of the project. This is clearly a strongly conservative approach as in reality, only a small portion of mahogany and cedar trees have been harvested through illegal logging. For example, within the current FSC selective logging taking place, over 50% of the volume removed is from mahogany trees.

Based on evidence observed in the project area during the site visit, this approach seems very conservative as illegal logging appears to be quite localized. Accounting for all biomass in mahogany and cedar in the buffer area as immediate project emissions is extremely conservative. It is the opinion of DNV that this deviation should be granted.

VMD0001 “Estimation of carbon stocks in the above and belowground biomass in live tree and non-tree pools”. II Procedures Part 1: Aboveground tree biomass: Estimation of carbon stocks in aboveground tree biomass (CAB_tree,i) The mean carbon stock in aboveground tree biomass per unit area is estimated based on field measurements in sample fixed area plots or sample points using prisms employing representative random or systematic sampling. It is requested that it be allowable to employ random sampling of clustered plots along transects. Analysis of the mean and uncertainty will then be estimated using clusters of plots. In addition, it is requested that it be allowable to conservatively estimate the biomass of areas within the project boundary where no biomass plots exist by assuming the mean biomass of such areas equates to 80% of the mean biomass found within the stratum where biomass plots have been place. Additional documentation has been provided elaborating on the methods employed .	Clustered sampling designs are commonly used to estimate forest metrics such as carbon stocks. This deviation resulted from CAR 3 and CL 7 when clustering of plots was discovered during the site visit. In response these findings and in accordance with the requested deviation, appropriate cluster-based estimators were used to determine the carbon stocks. During the site visit, evidence was observed that a portion of the project area was not sampled per VMD0001 (see CL 6). In response to this finding, the project proponents delineated a third stratum encompassing this area. Using a commercial forest inventory data, the project proponents estimated that the carbon stocks in this stratum are approximately 86% of an adjacent stratum on a per unit area basis. Although sample plots were not measured in this third stratum, it is the opinion of DNV that the application of 80% of carbon stocks on a per unit basis to this stratum is conservative. A Forward Action Request has been issued to install and measure plots in the third stratum prior to subsequent verification (see FAR 2). At this time, it is the opinion of DNV that this deviation be granted.
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3.3.8 Monitoring Plan

The monitoring plan is presented in Annex O of the PD. All of the required data and parameters relevant to the validation as of the date of this report and verification as of 31 December 2010 are available and provided in Annex O of the PD. All of the monitoring equipment and procedures specified in the monitoring plan and deviations to the monitoring plan are applicable and eligible per VCS requirements and the requirements of the methodology.

The monitoring plan presents summary tables of intermediate calculations to estimate the net GHG emissions reductions or removals.

3.3 Environmental Impact

The project does not appear to have a negative environmental impact. An FSC certificate allayed concerns of irresponsible or environmentally harmful effects associated with unsustainable timber harvesting.

3.4 Comments by stakeholders

As part of the validation audit, interviews were conducted with stakeholders. The outcomes of these consultations were entirely supportive of the project.

This project is part of the greater Rio Bravo Conservation and Management Area which maintains a management plan /30/. The maintenance of this plan effectively consults stakeholders in its section 11. As reflected by this plan, stakeholder comments are generally positive.

4 VALIDATION CONCLUSION

Det Norske Veritas (U.S.A.), Inc. (DNV) has performed a validation of the project activity “Rio Bravo Climate Action Project” in Belize. The validation was performed on the basis of VCSA criteria for the VCS project as well as criteria given to provide for consistent project operations, monitoring and reporting.

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 methodology “VM0007 REDD Methodology Modules”, version 1.1. The primary project activity is the acquisition and protection of forest lands threatened by agricultural conversion. As a result, the project results in reductions of CO₂ emissions which are real, measurable and give long-term benefits to the mitigation of climate change. It is demonstrated that the project is not a likely baseline scenario. Emission reductions attributable to the project are hence additional to any that would occur in the absence of the project activity.

The average annual net GHG emissions reductions or removals are 81,824 tCO₂e derived from an estimated total of 1,636,473 tCO₂e over twenty years. This figure is net of buffer pool allocation and estimated leakage. The emission reduction forecast has been checked and it is deemed likely that the stated amount is achieved given that the underlying assumptions do not change.

The monitoring plan provides for the monitoring of the project’s emission reductions. The monitoring arrangements described in the monitoring plan are feasible within the project design and it is DNV’s opinion that the project participants are able to implement the monitoring plan.

In summary, it is DNV’s opinion that the project activity “Rio Bravo Climate Action Project” in Belize, as described in the VCS PD, version 9 dated 1 Dec 2011, meets all relevant VCSA requirements for the VCS project and correctly applies the VCS methodology “VM0007 REDD Methodology Modules”, version 1.1. Hence, DNV recommends the registration of the project as a VCS project activity.

APPENDIX A

VCS VALIDATION PROTOCOL

Table 1 Requirements Checklist

Checklist Question	Ref	MoV	Assessment by DNV	Draft Concl.	Final Concl.
1 DESCRIPTION OF PROJECT					
1.1 Project title					
1.1.1 Does Section 1.1 of the VCS include a clearly identifiable project title?	/1/	DR	☒ Clearly identifiable title of the project activity.	☒	☒
1.2 Type / Category of the project					
1.2.1 Is the project category clearly described? Is the project category part of a GHG program that has been approved by the VCS Board?	/1/	DR	☒ Clearly described project category.	☒	☒
1.3 Estimated amount of emission reductions over the crediting period including project size					
1.3.1 How many tonnes CO ₂ equivalent emissions reductions per year will be generated? Is the project size correctly defined?	/1/	DR	☒ Approximately 92,690 over 20 years. The project is correctly defined.	☒	☒
1.4 A brief description of the project					
1.4.1 Is the description of the project clear? What activities and facility are included in the project?	/1/	DR	☒ The project is clearly described. The activity is avoided conversion to agriculture.	☒	☒
1.5 Project location including geographic and physical information allowing the unique identification and delineation of the specific extent of the project					
1.5.1 Can the information provided in the VCS PD allow for the unique identification and delineation of the specific extent of the project? What is the GPS project boundary?	/1/	DR	☒ Yes, GPS coordinates and KML are provided.	☒	☒

MoV = Means of Verification, DR= Document Review, I= Interview, CC= Cross-Checking

Checklist Question	Ref	MoV	Assessment by DNV	Draft Concl.	Final Concl.
1.6 Duration of the project activity/crediting period					
1.6.1 What is the project start date? Is the date correctly defined with supporting evidence? What is the duration of the project activity? Is the duration defined correctly with supporting evidence?	/1/	DR	☒ The project start date is 01 Jan 1996. The project activity duration is 40 years. The duration is defined correctly.	☒	☒
1.6.2 What is the crediting period start date? Is the date determined appropriately? What is the selected crediting period?	/1/	DR	☒ Crediting period start date 01 Jan 2002. The selected period is 20 years.	☒	☒
1.7 Conditions prior to project initiation					
1.7.1 Are the conditions prior to project initiation clearly described in the VCS PD with supporting evidence?	/1/	DR	☒ Yes.	☒	☒
1.7.2 What are the main events over the project initiation stage?	/1/	DR	☒ Acquisition and protection of the project area.	☒	☒
1.8 A description of how the project will achieve GHG emission reductions and/or removal enhancements					
1.8.1 Is the description of how the project will achieve GHG emission reductions and/or removal enhancements clear? How will the emission reductions and/or removal enhancements be achieved?	/1/	DR	☒ The description of the GHG emission reductions and/or removals is clear. These will be achieved by protecting the project area from planned deforestation.	☒	☒
1.9 Project technologies, products, services and the expected level of activity					
1.9.1 What products/services will be produced by the project? What technologies are used in the project? Are the technologies properly selected to provide the	/1/	DR	☒ FSC certified timber products will be produced. No specific technologies are used in the project.	☒	☒

Checklist Question	Ref	MoV	Assessment by DNV	Draft Concl.	Final Concl.
planned products/services?					
1.9.2 What is the expected level of activity? Is the expected level properly estimated with supporting evidence and assumption?	/1/	DR	☒ The level of activity is low and is estimated the supporting evidence.	☒	☒
1.10 Compliance with relevant local laws and regulations related to the project					
1.10.1 What relevant local laws and regulations related to the project are identified? What appropriate approaches are taken to ensure complete identification?	/1/	DR	☒ These are clearly defined in the PD and have been confirmed with government officials.	☒	☒
1.10.2 Is the project in compliance with all the relevant local laws and regulations? How is this demonstrated?	/1/	DR	☒ The project appears to be in compliance. This has been demonstrated with an FSC certificate and interviews with government officials.	☒	☒
1.11 Identification of risks that may substantially affect the project's GHG emission reductions or removal enhancements					
1.11.1 Are the risks that may substantially affect the project's GHG emission reductions or removal enhancements appropriately identified? What risks are identified?	/1/	DR	☒ The risks have been identified and are presented in the PD.	☒	☒
1.11.2 How are the risks evaluated to determine their potential effects to the project's GHG emission reductions or removal enhancements?	/1/	DR	☒ The risks are evaluated using the Risk Assessment tool.	☒	☒
1.12 Demonstration to confirm that the project was not implemented to create GHG emissions primarily for the purpose of its subsequent removal or destruction					

Checklist Question	Ref	MoV	Assessment by DNV	Draft Concl.	Final Concl.
1.12.1 What GHG emissions are to be created with the implementation of the project?	/1/	DR	☒ Project emissions are from the activities of selective logging.	☒	☒
1.12.2 Are these GHG emissions created by the implementation of the project the main sources for the emission reductions from the project?	/1/	DR	☒ Most of these project emissions are the same sources (aboveground and belowground biomass) as emissions reductions however the activity is different (logging versus land use conversion).	☒	☒
1.13 Demonstration that the project has not created another form of environmental credit (for example renewable energy certificates)					
1.13.1 If the project has created another form of environmental credit, has the proponent provided a letter from the program operator that the credit has not been used and has been cancelled from the relevant program?	/1/	DR	☒ The project has not created another form of credit.	☒	☒
1.13.2 If it is stated that the project has not created another form of environmental credit, how has this statement properly demonstrated?	/1/	DR	☒ The project has not created another form of credit.	☒	☒
1.14 Project rejected under other GHG programs (if applicable)					
1.14.1 Has the project been rejected by other GHG programs, which have been accepted by the VCS Board? If yes, has the proponent clearly stated in the VCS PD the reason for the rejection? Have the actual rejection documents including explanation been provided by the proponent?	/1/	DR	☒ The project has not been rejected.	☒	☒
1.15 Project proponents roles and responsibilities, including contact information of the project					

Checklist Question	Ref	MoV	Assessment by DNV	Draft Concl.	Final Concl.
proponent, other project participants					
1.15.1 Who are the project proponents? Are their roles and responsibilities, including contact information, clearly described in the VCS PD?	/1/	DR	☒ The project proponents are the Programme for Belize and the roles and responsibilities are clear in the PD.	☒	☒
1.16 Any information relevant for the eligibility of the project and quantification of emission reductions or removal enhancements, including legislative, technical, economic, sectoral, social, environmental, geographic, site-specific and temporal information					
1.16.1 Is any relevant information identified? If yes, describe the consequence.			☒ None are identified.	☒	☒
1.17 List of commercially sensitive information (if applicable)					
1.17.1 Has any commercially sensitive information been excluded from the public version of the VCS PD that will be displayed in the VCS Project Database? If yes, can the excluded information be justified as being commercially sensitive?	/1/	DR	☒ All commercially sensitive information is in separate annexes and should not be posted on the VCS website.	☒	☒
2 VCS METHODOLOGY					
2.1 Title and reference of the VCS methodology applied to the project activity and explanation of methodology choices					
2.1.1 Does the project apply a VCS program approved methodology and the correct version thereof?	/1/	DR	☒ The project applies the correct methodology.	☒	☒
2.1.2 Has any methodology deviation been applied? If yes, how has the deviation been determined acceptable?	/1/	DR	☒ The project has applied for four deviations and were determined	☒	☒

Checklist Question		Ref	MoV	Assessment by DNV	Draft Concl.	Final Concl.
				acceptable per this report, section 3.2.		
2.1.3	Has any methodology revision been applied? If yes, has the revision been approved through a double-approval process?	/1/	DR	☒ A deviation has been applied and has been approved through the methodology-approval process.	☒	☒
2.2 Justification of the choice of the methodology and why it is applicable to the project activity						
2.2.1	Land in the project area has qualified as forest at least 10 years before the project start date (VCS 2007.1, 2008 p 16)	/1/	DR	☒	☒	☒
2.2.2	The project area can include forested wetlands ¹ (such as bottomland forests, floodplain forests, mangrove forests) as long as they do not grow on peat. Peat shall be defined as organic soils with at least 65% organic matter and a minimum thickness of 50 cm ² . If the project area includes a forested wetlands growing on peat (e.g. peat swamp forests), this methodology is not applicable.	/1/	DR	☒	☒	☒
2.2.3	Project proponents must be able to show control over the project area and ownership of carbon rights for the project area at the time of verification.	/1/	DR	☒	☒	☒

¹ Forested wetlands are defined as forests that are inundated or saturated by surface or ground water at such a frequency and duration that under natural conditions they support organisms (flora and/or fauna) that are adapted to poorly aerated and/or saturated soil (Lugo, AE, M Brinson, S Brown, Editors, 1990. Ecosystems of the World 15: Forested Wetlands. Elsevier Science Publishers, Amsterdam, The Netherlands.

² Rieley, J.O. and S.E Page. 2005. Wise Use of Tropical Peatland: Focus on Southeast Asia. Alterra, Wageningen, The Netherlands. 237 p. ISBN 90327-0347-1. the definition used here has not been approved by the VCS. At such a future time when a definition for peat is approved and included in the VCS standard, the VCS definition shall be used.

Checklist Question		Ref	MoV	Assessment by DNV	Draft Concl.	Final Concl.
2.2.4	Baseline deforestation and baseline forest degradation in the project area fall within one or more of the following categories: Unplanned deforestation, Planned deforestation, Degradation through extraction of wood for fuel (fuelwood and charcoal production)	/1/	DR	☒	☒	☒
2.2.5	Baselines shall be renewed every 10 years after the start of the project except where triggers lead to a more frequent renewal.	/1/	DR	☒	☒	☒
2.2.6	All land areas registered under the CDM or under any other carbon trading scheme (both voluntary and compliance-orientated) must be transparently reported and excluded from the project area. The exclusion of land in the project area from any other carbon trading scheme shall be monitored over time and reported in the monitoring reports	/1/	DR	☒	☒	☒
2.2.7	If land is not being converted to an alternative use but will be allowed to naturally regrow (i.e. temporarily unstocked), this framework shall not be used	/1/	DR	☒	☒	☒
2.2.8	Where post-deforestation land use constitutes reforestation this framework shall not be used.	/1/	DR	☒	☒	☒
2.2.9	Leakage avoidance activities shall not include: Agricultural lands that are flooded to increase production (e.g. paddy rice),	/1/	DR	☒	☒	☒

Checklist Question		Ref	MoV	Assessment by DNV	Draft Concl.	Final Concl.
	Intensifying livestock production through use of “feed-lots” ³ and/or manure lagoons ⁴					
2.2.10	Uncertainty calculated using X-UNC must be ≤20% of net emission reductions at the 90% confidence level or this framework shall not be used	/1/	DR	☒	☒	☒
2.2.11	Conversion of forest lands to a deforested condition must be legally permitted	/1/	DR	☒	☒	☒
2.2.12	Documentation must be available to clearly demonstrate with credible evidence and documentation that indeed the land would have been converted to non-forest use if not for the REDD project.	/1/	DR	☒	☒	☒
2.2.13	If degradation is caused by either illegal or legal tree extraction for timber, this framework cannot be used.	/1/	DR	☒	☒	☒
2.3 Identifying GHG sources, sinks and reservoirs for the baseline scenario and for the project						
2.3.1	What are the project’s system boundaries (components and facilities used to mitigate GHGs)? Are they clearly defined and in accordance with the methodology?	/1/	DR	☒ These are clearly defined in the PD and in accordance with the methodology.	☒	☒

³ Feedlots are defined as areas in which naturally grazing animals are confined to an area which produces no feed and are fed on stored feeds

⁴ Anaerobic lagoons that function as receptacles for animal waste flushed from animal pens. Anaerobic organisms naturally present in the manure and the environment decompose the waste in the lagoon

Checklist Question	Ref	MoV	Assessment by DNV	Draft Concl.	Final Concl.
2.3.2 Which GHG sources, sinks and reservoirs are identified for the baseline scenario? Is the identification complete?	/1/	DR	☒ These are clearly defined in the PD. The identification is complete.	☒	☒
2.3.3 Which GHG sources, sinks and reservoirs are identified for the project? Is the identification complete?	/1/	DR	☒ These are clearly defined in the PD. The identification is complete.	☒	☒
2.4 Description of how the baseline scenario is identified and description of the identified baseline scenario					
2.4.1 What is the baseline scenario?	/1/	DR	☒ High-technology, mechanized agriculture.	☒	☒
2.4.2 Which baseline scenarios have been identified? Is the list of baseline scenarios complete?	/1/	DR	☒ Many have been identified in the PD and the list appears complete.	☒	☒
2.4.3 How have the other baseline scenarios been eliminated in order to determine the baseline? Is the determination of the baseline scenario in accordance with the guidance in the methodology?	/1/	DR	☒ Other scenarios have been eliminated using the tool for additionality and published reports on land use change in the region.	☒	☒
2.4.4 Is the baseline scenario determination compatible with the available data and are all literature and sources clearly referenced?	/1/	DR	☒ The baseline scenario is compatible.	☒	☒
2.4.5 Is the baseline determination adequately documented in the VCS PD? • All assumptions and data used by the project participants are listed in the VCS PD. The data are properly referenced. • All documentation is relevant as well as correctly quoted and interpreted. • Assumptions and data can be deemed reasonable. • The methodology has been correctly applied to identify what would occurred in the absence of the	/1/	DR	☒ The baseline scenario is adequately documented.	☒	☒

Checklist Question	Ref	MoV	Assessment by DNV	Draft Concl.	Final Concl.
proposed VCS project activity.					
2.5 Description of how the emissions of GHG by source in baseline scenario are reduced below those that would have occurred in the absence of the project activity (assessment and demonstration of additionality)					
2.5.1 What approach does the project use to assess additionality? Is this in line with the methodology?	/1/	DR	☒ The standard VCS tool, "Tool for the Demonstration and Assessment of Additionality in VCS Agriculture, Forestry and Other Land Use (AFOLU) Project Activities" A barriers analysis (Step 3) was conducted instead of an investment analysis (Step 2) per the tool. Nevertheless, a NPV analysis was conducted as part of the risk buffer determination.	☒	☒
Investment analysis			<i>NOTE – A barriers analysis conducted instead of an investment analysis. References in this section are not specific to an investment analysis.</i>		
2.5.2 Does the project activity or any of the remaining alternatives generate revenues apart from carbon revenues? Is this reflected in the VCS PD?	/1/	DR	☒ Selective logging generates revenues apart from carbon revenues and is reflected in the PD.	☒	☒
2.5.3 Do any of the alternatives to the project activity involve investment? Is this reflected in the VCS PD?	/1/	DR	☒ Some other activities involve investment and this is reflected in the PD.	☒	☒

Checklist Question	Ref	MoV	Assessment by DNV	Draft Concl.	Final Concl.
2.5.4 Is the choice of benchmark analysis, investment comparison or simple cost analysis correct?	/1/	DR	☒ Yes. The project uses a barriers analysis (Step 3) to demonstrate additionality and not an investment analysis (Step 2). Nevertheless, a NPV analysis was conducted as part of the risk buffer determination and shows that revenue from selective logging is low compared to administrative costs. The NPV has been assessed to be negative without carbon revenues.	☒	☒
2.5.5 Is the benchmark/discount rate the latest available at the time of the decision?	/1/	DR	☒ The investment analysis does not use a discount rate.	☒	☒
2.5.6 What is the financial indicator? Is it on equity/project basis? Before/after tax? Does the financial indicator correspond with the benchmark?	/1/	DR	☒ The indicator corresponds with the benchmark.	☒	☒
2.5.7 Are the underlying assumptions appropriate, e.g., what is considered as waste in the baseline and is this considered to have zero value?	/1/	DR	☒ The underlying assumptions are appropriate.	☒	☒
2.5.8 Does the income tax calculation take depreciation into account? Is the depreciation year in accordance with normal accounting practice in the host country?	/1/	DR	☒ NA.	☒	☒
2.5.9 Is the time period of the investment analysis and operating time of the project realistic? Has salvage value been taken into account? Is working capital returned in the last year of operation?	/1/	DR	☒ NA.	☒	☒
2.5.10 How was the amount of output (e.g., sales) assessed?	/1/	DR	☒ The NPV calculation has revenues into account and the estimations cross checked during the site visit	☒	☒

Checklist Question	Ref	MoV	Assessment by DNV	Draft Concl.	Final Concl.
2.5.11 How was the output price (e.g., methane) assessed? Were the data available and valid at the time of the decision?	/1/	DR	☒ The NPV calculation has revenues into account and the stimations cross checked during the site visit	☒	☒
2.5.12 How were the investment costs assessed? Were the data available and valid at the time of the decision?	/1/	DR	☒ Different documents referrenced in the report were checked to confirm investment costs.	☒	☒
2.5.13 How were the O&M costs assessed? Were the data available and valid at the time of decision?	/1/	DR	☒ Adminstrateive costs for logging were taken into account.	☒	☒
2.5.14 Describe the assessment of the other input parameters. Were the data available and valid at the time of decision?	/1/	DR	☒ The data available at the time of the decision allowed to conclude on a non attractive investment	☒	☒
2.5.15 Was the financial calculation spreadsheet verified and found to be correct?	/1/	DR	☒ The NPV analysis conducted for the risk buffer determination was found to be correct (see CAR 1).	☒	☒
2.5.16 Sensitivity analysis: Is the range of variations is reasonable in the project context?	/1/	DR	☒ A barriers analysis was conducted instead of an investment analysis.	☒	☒
Barrier analysis					
2.5.17 Are the barriers identified complimentary to a potential investment analysis? Does the barrier have a clear impact on the financial returns so that it can be assessed in an investment analysis? Each barrier is discussed separately.	/1/	DR	☒ An investment analysis was not completed as part of the additionality discussion.	☒	☒
2.5.18 How were the <u>investment barriers</u> assessed to be real? Are the investment barriers substantiated by a source independent of the project participants?	/1/	DR	☒ Evidence is provided based on common practice and funding, including a loan.	☒	☒

Checklist Question	Ref	MoV	Assessment by DNV	Draft Concl.	Final Concl.
2.5.19 How does carbon revenue alleviate the investment barriers?	/1/	DR	☒ Finances the repayment of the loan.	☒	☒
2.5.20 Is the project activity prevented by the investment barriers and is at least one of the possible alternatives to the project activity feasible under the same circumstances?	/1/	DR	☒ Yes.	☒	☒
2.5.21 How were the <u>technological barriers</u> assessed to be real? Are the technological barriers substantiated by a source independent of the project participants?	/1/	DR	☒ NA.	☒	☒
2.5.22 How does carbon revenue alleviate the technological barriers?	/1/	DR	☒ NA.	☒	☒
2.5.23 Is the project activity prevented by the technological barriers and is at least one of the possible alternatives to the project activity feasible under the same circumstances?	/1/	DR	☒ NA.	☒	☒
2.5.24 How were the <u>regulatory and institutional barriers</u> assessed to be real? Are the <u>regulatory and institutional barriers</u> substantiated by a source independent of the project participants?	/1/	DR	☒ NA.	☒	☒
2.5.25 How does carbon revenue alleviate the barriers due to prevailing practice?	/1/	DR	☒ NA.	☒	☒
2.5.26 Is the project activity prevented by the <u>regulatory and institutional barrier</u> and is at least one of the possible alternatives to the project activity feasible under the same circumstances?	/1/	DR	☒ NA.	☒	☒
Common practice analysis					
2.5.27 What is the geographical scope of the common practice analysis? Is this justified?	/1/	DR	☒ The scope is the region of the project in Northern Belize which is justified.	☒	☒

Checklist Question	Ref	MoV	Assessment by DNV	Draft Concl.	Final Concl.
2.5.28 What is the scope of technology and size (e.g., capacity of power plant) for the common practice analysis and how has this been justified?	/1/	DR	☒ NA.	☒	☒
2.5.29 What is the data source(s) used for the common practice analysis?	/1/	DR	☒ Evidence of trends in land use change in the region.	☒	☒
2.5.30 How many similar projects without carbon income exist in the region within the scope?	/1/	DR	☒ One or two similar projects exist in the region but with dramatically different approaches.	☒	☒
2.5.31 How were possible essential distinctions between the project activity and similar activities assessed?	/1/	DR	☒ NA.	☒	☒
2.5.32 What is the conclusion of the common practice analysis?	/1/	DR	☒ The project is not common practice, agriculture is common practice.	☒	☒
Conclusion					
2.5.33 What is the conclusion with regard to the additionality of the project activity?	/1/	DR	☒ The project is additional.	☒	☒
3 MONITORING					
3.1 Title and reference of the VCS methodology (which includes the monitoring requirements) applied to the project activity and explanation of methodology choices					
3.1.1 Which VCS methodology is applied to the project activity? Is the choice justified properly?	/1/	DR	☒ VM0007 was applied to the project.	☒	☒
3.2 Monitoring, including estimation, modelling, measurement or calculation approaches					

Checklist Question	Ref	MoV	Assessment by DNV	Draft Concl.	Final Concl.
3.2.1 What types of data and information need to be reported in order to estimate the emission reductions and provide other relevant information required by the VCS program? Is the identified data type and information complete, including units of measurement?	/1/	DR	☒ These are identified in the PD and are complete. The data include units of measurement.	☒	☒
3.2.2 Are monitoring roles and responsibilities clearly and properly defined?	/1/	DR	☒ The monitoring roles are clearly and properly defined.	☒	☒
3.2.3 Are parameters not monitored listed completely?	/1/	DR	☒ All parameters are listed and are monitored.	☒	☒
3.3 Data and parameters monitored / Selecting relevant GHG sources, sinks and reservoirs for monitoring or estimating GHG emissions and removals					
3.3.1 For each data and parameter monitored, is the monitoring, including estimation, modelling, measurement or calculation approaches properly selected? What are they? Do they comply with the requirements of the methodology, including measurement accuracy?			☒ All monitored parameters comply with the requirements of the methodology or were granted a deviation.	☒	☒
3.3.2 What QA/QC procedures will be applied to ensure the measurement quality, including installation, calibration and maintenance?			☒ NA.	☒	☒
3.4 Description of the monitoring plan					
3.4.1 How has it been assessed that the monitoring arrangements described in the monitoring plan are feasible within the project design?	/1/	DR	☒ Monitoring has already occurred.	☒	☒
3.4.2 Are procedures identified for day-to-day records handling (including what records to keep, storage area of records and how to process performance documentation)?			☒ Procedures are identified for record keeping in the PD.	☒	☒

Checklist Question	Ref	MoV	Assessment by DNV	Draft Concl.	Final Concl.
3.4.3 Are the data management and quality assurance and quality control procedures sufficient to ensure that the emission reductions achieved by/resulting from the project can be reported ex-post and verified?	/1/	DR	☒ Yes, adequate.	☒	☒
3.4.4 Will all monitored data required for verification and issuance be kept for two years after the end of the crediting period?	/1/	DR	☒ Yes.	☒	☒
4 GHG EMISSION REDUCTIONS					
4.1 Explanation of methodological choice					
4.1.1 Have equations and parameters been clearly and properly identified?	/1/	DR	☒ Equations and parameters have been clearly identified.	☒	☒
4.2 Quantifying GHG emissions and/or removals for the baseline scenario					
4.2.1 Are the calculations documented according to the approved methodology and in a complete and transparent manner?	/1/	DR	☒ All documented calculations are according to the methodology or deviations.	☒	☒
4.2.2 Have conservative assumptions been used when calculating the baseline emissions?	/1/	DR	☒ Conservative assumptions have been used.	☒	☒
4.2.3 Are uncertainties in the baseline emission estimates properly addressed?	/1/	DR	☒ Uncertainties in the baseline emissions have been properly addressed per the methodology.	☒	☒
4.3 Quantifying GHG emissions and/or removals for the project					
4.3.1 Are the calculations documented according to the approved methodology and in a complete and transparent manner?	/1/	DR	☒ All documented calculations are according to the methodology or deviations.	☒	☒

Checklist Question	Ref	MoV	Assessment by DNV	Draft Concl.	Final Concl.
4.3.2 Have conservative assumptions been used when calculating the project emissions?	/1/	DR	☒ Conservative assumptions have been used.	☒	☒
4.3.3 Are uncertainties in the project emission estimates properly addressed?	/1/	DR	☒ Uncertainties in the project emissions have been properly addressed per the methodology.	☒	☒
4.4 Quantifying leakage					
4.4.1 Are the leakage calculations documented according to the approved methodology and in a complete and transparent manner?	/1/	DR	☒ The leakage calculations are documented and are according to the approved methodology.	☒	☒
4.4.2 Have conservative assumptions been used when calculating the leakage emissions?	/1/	DR	☒ Conservative assumptions have been used.	☒	☒
4.4.3 Are uncertainties in the leakage emission estimates properly addressed?	/1/	DR	☒ Uncertainties in the leakage emissions have been properly addressed per the methodology.	☒	☒
5 ENVIRONMENTAL IMPACT					
5.1.1 Are there any requirements for an Environmental Impact Assessment (EIA) by applicable legislation or regulation? And if yes, is an EIA approved? Does the approval contain any conditions that need monitoring?	/1/	DR	☒ It does not appear that an EIA is required.	☒	☒
5.1.2 Is a summary of environmental impact assessment described in the VCS PD when such an assessment is required by applicable legislation or regulation?	/1/	DR	☒ This is contained in the PD.	☒	☒
5.1.3 Does the project comply with applicable environmental legislation?	/1/	DR	☒ The project complies with applicable environmental legislation.	☒	☒

Checklist Question	Ref	MoV	Assessment by DNV	Draft Concl.	Final Concl.
5.1.4 Have identified environmental impacts been addressed in the project design?	/1/	DR	☒ No environmental impacts are expected.	☒	☒
6 STAKEHOLDERS COMMENTS					
6.1.1 Have relevant stakeholders been consulted?	/1/	DR	☒ Stakeholders have been consulted.	☒	☒
6.1.2 Is a summary of the stakeholder comments received provided?	/1/	DR	☒ The summary is in the Sustainable Forest Management Plan.	☒	☒
6.1.3 Has due account been taken of any stakeholder comments received?	/1/	DR	☒ Account of stakeholder comments have been addressed in the management plan.	☒	☒
6.1.4 Have mechanisms been identified in the VCS PD for on-going communication with stakeholders?	/1/	DR	☒ Mechanisms are identified in the management plan.	☒	☒
7 SCHEDULE					
7.1.1 Has the chronological plan for the date of initiating project activities, and the date of terminating the project been described in the VCS PD?	/1/	DR	☒ Yes.	☒	☒
7.1.2 Has the chronological plan for frequency of monitoring and reporting and the project period, including relevant project activities in each step of the GHG project cycle been described in the VCS PD?	/1/	DR	☒ Yes, per the methodology.	☒	☒
8 OWNERSHIP					
8.1 Proof of Title					

Checklist Question	Ref	MoV	Assessment by DNV	Draft Concl.	Final Concl.
8.1.1 Has evidence of proof of title been provided through one of the following: • A legislative right. • A right under local common law. • Ownership of the plant, equipment and/or process generating the reductions/removals. • A contractual arrangement with the owner of the plant, equipment or process that grants all reductions/removals to the proponent.	/1/	DR	☒ Yes, title was confirmed with a title search and official land certificates.	☒	☒
8.2 Projects that reduce GHG emissions from activities that participate in an emissions trading program (if applicable)					
8.2.1 If the project reduces GHG emissions from activities that: • Are included in an emissions trading Program or • Take place in a jurisdiction or sector in which binding limits are established on GHG emissions. Have the project proponents provided evidence that the reductions or removals generated by the project have or will not be used in the Program or jurisdiction for the purpose of demonstrating compliance? The evidence could include: • A letter from the Program operator or designated national authority that emissions allowances (or other GHG credits used in the Program) equivalent to the reductions/removals generated by the project have been cancelled from the Program; or national cap as applicable or • Purchase and cancellation of GHG allowances equivalent to the reductions/removals generated by the project related to the Program or national	/1/	DR	☒ NA.	☒	☒

Checklist Question	Ref	MoV	Assessment by DNV	Draft Concl.	Final Concl.
cap.					

Table 2 Resolution of Corrective Action Requests and Clarification Requests

First round Draft report clarifications and corrective action requests by validation team	First round Summary of response	First round Validation team conclusion	Second round Summary of response	Second round Validation team conclusion
CAR 1: Please conduct an NPV analysis per section 2.2.3.1 of the AFOLU non-permanence risk tool.	The NPV analysis has been completed and included in <i>Annex P: Risk Assessment – Opportunity Cost</i> . Results of the analysis can be found in the supplementary document: <i>Notes to Rio Bravo Non-Permanence Risk Assessment.doc</i> .	The revised NPV analysis is now in conformance. CAR Closed.		
CAR 2: Upon discussion with knowledgeable local community members, it appears that the project area would have been salvage logged before conversion to agriculture. Per the AFOLU requirements laid out in 4.4.8.1.a, wood products must therefore be included in the baseline scenario.	The Baseline Carbon Stock Report provides an estimate of the timber extracted following deforestation and prior to conversion to cropland. The harvested wood products resulting from this extraction are then calculated. This text has been updated to Section 2.5 and 3.3 of the Baseline Carbon Stock Report to add clarity to this issue. It is assumed that following removal of timber, all remaining biomass is burned. Text regarding this issue can also be found in the report 'Rio Bravo – Application of the Baseline Report' in section 2.3.	The reference report accounts for wood products in the baseline scenario. Carbon in estimated wood products in the baseline is immaterial to the total emissions from deforestation. CAR Closed.		

First round Draft report clarifications and corrective action requests by validation team	First round Summary of response	First round Validation team conclusion	Second round Summary of response	Second round Validation team conclusion
CAR 3: Please compare the description of the plot allocation and sampling design (see CL 7) to VMD0001 and provide an explanation of any deviations.	VMD0001 states 'measurements in sampled fixed area plots or sample points using prisms employing representative random or systematic sampling'. The plots within the Rio Bravo project were established using stratified systematic sampling with a random start. Plots were then established along regularly spaced transects.	The plot allocation does not appear to match section II of VMD0001 (Procedures). VMD0001 does not specify transects nor does it provide unbiased estimators of total carbon stocks in aboveground tree biomass when plots are clustered on transects. Please define an unbiased estimators of total carbon stocks in aboveground tree biomass and standard error of this total when plots are clustered on transects. Also, please clearly define these deviations from VMD0001 in the PD.	Biomass plots that are along transects have been clustered and the estimation of variance/standard error calculated using the Taylor Series Linearization method in the statistical package 'Stata 10.1' using the commands SVY (svy set and svy mean). The method used was advised to us by statistician with a doctorate in Survey Methodology and Dr. West the author of "Applied Survey Data Analysis". A deviation request has been added to the PD. See Annex B: Comparison of biomass estimation	CAR Closed. A first-order Taylor series expansion is used to estimate the variance in total carbon stocks. This estimator is minimally biased. As expected, this estimator resulted in lower precision.
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First round Draft report clarifications and corrective action requests by validation team	First round Summary of response	First round Validation team conclusion	Second round Summary of response	Second round Validation team conclusion
CAR 4: For your analysis of leakage risk, please provide evidence that you consulted experts in the production of key commodities per VMD0009.	**This has taken place. Currently waiting for confirmation and evidence from Alex Martinez**	Open pending confirmation to Alex Martinez	A letter from Jan Meerman has been provided.	CAR Closed. Evidence provided in the letter from Jan Meerman indicates she was consulted as an expert in agricultural commodities.
CAR 5: Per VCS Standard 3.11, please provide a .kml file of the project area.	KML file is know located in the GIS supplementary folder along with the shapefile.	CAR closed.		
CAR 6: Per AFOLU requirements 3.1.4 please identify potential negative socio-economic impacts and steps to mitigate them.	An analysis of the socio-economic impacts has been included in <i>Annex T: Programme for Belize, Rio Bravo Social Impact Assessment</i> .	A socio-economics impact assessment has been added to Annex T. CAR Closed.		

First round Draft report clarifications and corrective action requests by validation team	First round Summary of response	First round Validation team conclusion	Second round Summary of response	Second round Validation team conclusion
CAR 7: The monitoring report does not conform to the methods specified in VMD0015 with respect to degradation through wood extraction (illegal logging 2.2.1). Please revise the monitoring report or methodology accordingly. This relates to using buffered GPS points and forest inventory data to estimate emissions from illegal logging which is not an option in the module.	A methodology deviation has been requested that will result in a conservative estimate of emissions from illegal logging. All mahogany and cedar trees found within areas accessible to illegal loggers are assumed to be removed in the first two years. Based on survey results, a buffer has been created around all access points. Based on forest inventory data, the average biomass of mahogany and cedar trees per hectare was estimated. The estimated area of potential degradation was then multiplied by the biomass of these trees to conservatively estimate the total emissions resulting from illegal logging.	Text in the monitoring report indicates only biomass of mahogany trees was removed. Please bring the monitoring report into conformance with your response.	Text has been updated	CAR Closed. The monitoring report now conforms to the revised version VMD0015 and matches the response to this finding. This text accurately reflects evidence of illegal logging observed during the site visit.

First round Draft report clarifications and corrective action requests by validation team	First round Summary of response	First round Validation team conclusion	Second round Summary of response	Second round Validation team conclusion
CAR 8: VM0001 specifies that allometric equations must have been “based on datasets that comprise at least 30 trees.” However the palm equations used to estimate carbon stocks in aboveground tree biomass appear to be based on datasets comprised of 15 trees.” Please revise the monitoring report to be in conformance with VMD0001.	Unfortunately, we were not able to locate additional palm data. In addition, combining the palm data is not possible due to their different growth patterns. Therefore, the palms have been removed from the biomass database	Since the biomass of palms is conservatively removed from the database. CAR Closed.		
CL 1: Please produce a copy of the cash flow analysis for the project.	The Cash Flow analysis has been completed and included in <i>Annex P: Risk Assessment – Financial Viability</i> . Results of the analysis can be found in the supplementary document: <i>Notes to Rio Bravo Non-Permanence Risk Assessment.doc</i> .	CL closed with attached evidence.		

First round Draft report clarifications and corrective action requests by validation team	First round Summary of response	First round Validation team conclusion	Second round Summary of response	Second round Validation team conclusion
CL 2: Please send a copy of the memorandum of understanding between the government of Belize and the project proponent referred to by the Ministry of Lands and the Ministry of Finances which assigns carbon rights to the project proponents.	The Project Proponent has been changed to Programme for Belize (PfB). PfB is the project implementer and titled owner of the project area, and holds full control and oversight of the project. The <i>Comprehensive Agreement</i> (Annex K) explicitly assigns the carbon rights to the Financial Participants in Section 5.4. Furthermore, the term Financial Participants is defined in the Recitals section of the agreement, and does not include the Govt of Belize. A copy of the resolution assigning the carbon rights to the Financial Participants is in <i>Annex B: Government Letters of Support: Commitments by the Govt of Belize</i>. This resolution was signed by the Prime Minister of Belize, clearly assigning the rights to any offsets to the Financial Participants (Section 4). Also included in <i>Annex B: Government Letters of Support: Commitments by the Govt of Belize</i>, is the Host Country Approval Letter, signed by the then Deputy Prime Minister (and current Prime Minister) which also clearly recognizes the financial participant's rights to any offsets (paragraph 5).	With the submission of this evidence, the CL is closed		

First round Draft report clarifications and corrective action requests by validation team	First round Summary of response	First round Validation team conclusion	Second round Summary of response	Second round Validation team conclusion
CL 3: Please provide an updated abstract based on a title search for the project area.	Land register reports were requested on 23-Sep-2011. Copies of these land register reports can be found in <i>Annex D: Land Titles</i> . These reports confirm the Programme for Belize is the current land owner of the project area: Block 13, Parcel 6 and Block 14, Parcel 3.	Land register reports are sufficient, CL closed.		
CL 4: Please provide evidence that the government of Belize is not a financial investor nor has financial interest in carbon credits that the project might generate.	A letter from the Belizean Ministry of Finance can be found in <i>Annex P: Risk Assessment - GOB C-SEQ Endorsement2011</i> .	Letter meets these requirements, CL closed.		

First round Draft report clarifications and corrective action requests by validation team	First round Summary of response	First round Validation team conclusion	Second round Summary of response	Second round Validation team conclusion
CL 5: The provided SOP for plot measurement does not match the measurements taken with respect to 1. edge trees (in/out decision), 2. Palms (nest in plots), 3. Notes on DBH measurement location on the bole. Please either correct the SOP or the field measurements.	SOP manual has been updated. All palms in medium nest in data have been removed. Therefore palms are only found in small nest. SOP 7 Boundary trees: Place the DME directly by the center of the tree and take a reading of distance to the plot center. If it is exactly on the border of the plot then the first tree will be in and the second tree will be out. Continue to alternate boundary trees between in and out of the plot. SOP 8 Palm trees: If palms with dbh > 5.0 cm are present in the small ring, measure and record height because biomass is more closely related to height than to diameter. If possible an aluminum numbered tag should be attached at dbh. If palms are present in any other region of the plot (medium or large) they should not be measured. SOP 6 Measuring dbh of trees: All trees will be measured at dbh (1.3 m above ground) or in the case of buttressed trees at the point above the buttress where the bole becomes non-flared. For trees with defects at dbh, the diameter will be measured above or below the defect. To measure forked trees, the diameter of each fork of the tree that originates at or below 1.5 m was counted as a separate tree. Each fork will be counted as an individual tree and with a diameter taken at 1.3 m above	Updated SOP meets requirements, CL closed.		
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First round Draft report clarifications and corrective action requests by validation team	First round Summary of response	First round Validation team conclusion	Second round Summary of response	Second round Validation team conclusion
CL 6: No plots appear in the southernmost portion of the northern block of the project area. Please justify how the sample is representative of the southern area in the northern block.	See Annex A: Response to CL 6. The forest inventory data was used to demonstrate that the biomass within the southern portion of Block 13, Parcel 6 is within the range of biomass found within the carbon stock plots found in other portion of the project.	The results of statistical tests are presented but no calculations are provided. Please provide the calculations used to perform the statistical tests.	See Annex A: Response to CL6. The response has been updated to demonstrate that the biomass within the southern portion of Block 13 Parcel 6 is highly likely to be well represented by the existing biomass plots.	CL Closed. Although no plots were measured in the southern most portion of Block 13, Parcel 6, the biomass in this southern portion was stratified separately and conservatively estimated. This can be inferred from the statistical test based on supplementary inventory data which indicates this added stratum could be 86% of the carbon elsewhere in the project area on a per unit area basis. This is consistent with observations made during the field visit.

First round Draft report clarifications and corrective action requests by validation team	First round Summary of response	First round Validation team conclusion	Second round Summary of response	Second round Validation team conclusion
CL 7: Please provide an explanation of the plot allocation and sampling design.	Information on plot location updated in the “Rio Bravo Baseline Carbon Pool Stock Report” in section 2.2.2. The plots were established using stratified sampling with a random start. Locations for starting transects were random access points and then plots established at regular 100 meter intervals, plot centers were established 30 meters at right angles to the left of the transect. The plots had at least a 100 meter buffer from property boundaries. Systematic sample unit selection was expected to result in greater precision than random sample unit selection. Original reports written during plot establishment (eg Belize Report.doc) state this to be the sampling design used.	CL Closed. See CAR 3.		
CL 8: Please add additional evidence to support the risk analysis and buffer determination.	The Non Permanence Risk Report included in <i>Annex P: Risk Assessment</i> has been revised to clearly support the risk analysis and buffer determination.	Report revision adequate, CL closed.		

First round Draft report clarifications and corrective action requests by validation team	First round Summary of response	First round Validation team conclusion	Second round Summary of response	Second round Validation team conclusion
CL 9: Please clearly mark your scores in the risk analysis and buffer determination.	The Non Permanence Risk Report included in <i>Annex P: Risk Assessment</i> has been revised to clarify the scoring of each section.	CL Closed.		
CL 10: Please provide VCS guidance on the interpretation of table 2, financial viability, with respect to the interpretation of cash flow (positive vs. negative).	A copy of the email from the VCSA has been included in <i>Annex P: Risk Assessment - RE_AFOLU Risk Assessment Clarification from VCSA (Carolyn Ching)</i> .	Guidance produced, CL closed.		

First round Draft report clarifications and corrective action requests by validation team	First round Summary of response	First round Validation team conclusion	Second round Summary of response	Second round Validation team conclusion
CL 11: Provide a detailed assessment of the productivity of alternative areas of the country for commodity production (VMD0009).	As stated in VMD0009, the productivity assessment was based on soil type, elevation, and precipitation. Elevation and precipitation are similar throughout the forested alternative areas as precipitation is similar throughout the country and elevation was one of the criteria used to select the forested alternative areas. (Step 2). Based on advisement from several crop and soil science researchers, the productivity of forested alternative areas was evaluated through the use of soil quality indicators present within the Harmonized World Soil Database. The average value of each indicator in the forested alternative areas was estimated through an area-weighting. This analysis is present in the excel file 'Supplementary Documents\Annex R Leakage\Rio Bravo Leakage Analysis.xlsx'. As stated in Step 4, these indicators were then compared to the project area.	Assessment provided, CL closed.		

First round Draft report clarifications and corrective action requests by validation team	First round Summary of response	First round Validation team conclusion	Second round Summary of response	Second round Validation team conclusion
CL 12: Please clarify the author of the land use management plan provided in annex O.	The author of Land Use Management Survey was Dareece Chuc. This correction has been made to all references in the supporting documentation: <i>Monitoring Report (v2)</i> <i>Rio Bravo - Application of VMD0009 LK-ASP Report (v2)</i> <i>Survey of Agricultural Expansion and Management in Northern Belize (v2)</i> <i>Land Use management survey - Data (v2)</i>	Clarification made, CL closed.		
CL 13: Please describe how ranger patrols mitigate the risk from extreme weather and geologic risk.	This was a data entry error. References to ranger patrols as mitigation to weather and geologic risk have been eliminated in the revised <i>Non-Permanence Risk Report</i> .	Correction made, CL closed.		
CL 14: Per VMD 0001 please provide evidence that allometric equations used by the project were validated, and please also provide the data used to build the equations. Alternatively, build new equations.	Validation done on five trees. Text has been updated to "Appendix A Applicability of Allometric Equations" in "Rio Bravo – Baseline Carbon Pool Stocks Report"	Validation performed, CL Closed.		

First round Draft report clarifications and corrective action requests by validation team	First round Summary of response	First round Validation team conclusion	Second round Summary of response	Second round Validation team conclusion
CL 15: Please provide copies of logging/scale records/receipts as supporting evidence for estimates of emissions from wood extraction and selective logging.	Copies of all logging receipts have been submitted. They may be found here: Supplementary Documents\Annex O Monitoring\Selective Logging Data\Harvest_data\TimberHarvest_Invoices	Copies provided, CL closed.		
CL 16: Please provide the data and an analysis of the data to estimate the logging gap emissions factor applied in this project.	Based on the revision of the monitoring module, a logging damage default factor was used. Therefore, this information is no longer required.	Default accepted, CL closed.		

