METHODOLOGY ASSESSMENT

Methodology Revisions for VM0009 v2.1: Avoided Deforestation

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Methodology Title	Methodology for Avoided EcoSystem Conversion	
Version	Version 3.83	
Methodology Category	Methodology	
	Methodology Revision	X
	Module	
	Tool	
Sectoral Scope(s)	Sectoral Scope 14, REDD and ACoGS	

Report Title	Methodology Revisions for VM0009 v2.1: Avoided Deforestation
Report Version	*Version 01*
Client	*Wildlife Works Carbon*
Pages	*44*
Date of Issue	*07 February 2014*
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Summary:

Det Norske Veritas (U.S.A.), Inc (DNV GL) has performed a second validation of "Methodology Revisions for VM0009 v2.1: Avoided Deforestation "/8/ to confirm that the methodology design, as documented, is sound and reasonable and meets the identified criteria. The validation was performed on the basis of VCSA requirements for VCS methodologies, 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 the resolution of outstanding issues. The review of the project design documentation and the subsequent follow-up interviews have provided DNV GL with sufficient evidence to determine the fulfilment of stated criteria.

The project consists of validating revisions to VM0009 v2.1 in order to allow for baseline types which include logging and frontier-type deforestation and conversion of native grassland & scrubland. This revision also includes accounting and mensuration methodology to allow all permitted end land uses other than projects with peat soils in the baseline.

In summary, it is DNV GL's opinion that the "Methodology for Avoided EcoSystem Conversion, Version 3.83" 12-01-2014/9/, meets all relevant VCSA requirements set out in the VCS Program Guide version 3.5/1/, VCS Standard version 3.4/2/ and AFOLU Requirements v3.4/3/. Hence, DNV GL recommends the approval of the revisions as this VCS REDD Methodology.

TABLE OF CONTENTS

Abbreviations 4

1. Introduction 5

1.1 Objective 5
1.2 Summary Description of the Methodology 5
2 ASSESSMENT APPROACH 6

2.1 Method and Criteria 6
2.2 Document Review 6
2.3 Interviews 7
2.4 Assessment Team 7
2.5 Resolution of Findings 8
3 ASSESSMENT FINDINGS 8

3.1 Relationship to Approved or Pending Methodologies 9
3.2 Stakeholder Comments 9
3.3 Structure and Clarity of Methodology 10
3.4 Definitions 10
3.5 Applicability Conditions 10
3.6 Project Boundary 13
3.7 Baseline Scenario 16
3.8 Additionality 18
3.9 Quantification of GHG Emission Reductions and Removals 18
3.9.1 Baseline Emissions 18
3.9.2 Project Emissions 18
3.9.3 Leakage 19
3.9.4 Net GHG Emission Reductions and Removals 20
3.10 Monitoring 20
4 Assessment Conclusion 21

5 report reconciliation 21

6 evidence of fulfilment of VVB eligibility requirements 22

7 Signature 22

ABBREVIATIONS

A/R CDM or CDM A/R	Afforestation / Reforestation Clean Development Mechanism
ACoGS	Avoided Conversion of Grasslands and Shrublands
AFOLU	Agriculture, Forestry and Other Land Use
ALM	Agricultural Land Management
APC	Planned Conversion
APD	Avoided Emission from Planned Deforestation
AUC	Unplanned Conversion
CAR	Corrective Action Request
CL	Clarification Request
DNA	Designated National Authority
FAO	Food and Agriculture Organisation of the United Nations
GER	Gross Reductions and Removals
GHG	Green House Gas
LULC	Land Use Land Cover
NERS	Net GHG Emission Reduction and Removals
NPV	Net Present Value
REDD	Reduced Emissions from Deforestation and Degradation
SOC	Soil Organic Carbon
UADD	Unplanned Deforestation and Degradation
VCSA / VCS	Verified Carbon Standard Association
VCU	Verified Carbon Unit

1. INTRODUCTION

Wildlife Works Carbon has commissioned DNV *(U.S.A) Inc. (*DNV GL) to perform a second assessment of Methodology for Avoided EcoSystem Conversion, Version 3.83/9/. This report summarizes the findings of the validation of the revisions, performed on the basis of VCSA criteria for VCS methodologies, as well as criteria given to provide for consistent project operations, monitoring and reporting i.e. VCSA criteria refer to VCS Standard, Version 3.4 /2/ and AFOLU Requirements, Version 3.4. /3/. The methodological revision consists of allowing for baseline types which include logging, frontier-type deforestation and conversion of native grassland & scrubland. This revision also includes accounting and mensuration methodology to allow all permitted land end uses, other than projects with peat soils and/or wetlands in the baseline.

1.1 Objective

The purpose of a validation is to have an independent third party assess the methodology revisions and design. In particular, the methodology's new allowable baselines, mensuration methodologies, and compliance with relevant VCSA criteria are validated in order to confirm that the revisions, as documented, are sound and reasonable and meet the identified criteria. Validation is a requirement for all VCS methodology revisions and is necessary to provide assurance to stakeholders of the quality of the projects that use this methodology and their intended generation of the Verified Carbon Units (VCUs).

1.2 Summary Description of the Methodology

This methodology provides a means to quantify Net GHG Emission Reductions and Removals (NERs) from project activities that prevent conversion of forest to non-forest and of native grassland to a non-native state. The methodology accounts for emissions from all allowable pools specified by the VCS AFOLU Requirements for the Reduced Emissions from Deforestation and Degradation (REDD) and Avoided Conversion of Grasslands and Shrublands (ACoGS) project categories, with the exception of peat soils and litter. This methodology can be applied to account for avoided emissions from planned deforestation (APD), unplanned deforestation and degradation (AUDD), planned conversion (APC), and unplanned conversion (AUC) baseline scenarios. It uses a project method to determine additionality (see Section 7 of the methodology).

This methodology differentiates between eight baseline types based on the proximate agent of conversion, the drivers of conversion, where the specific agent of conversion can be identified, and the progression of conversion (Figure 3, Section 6.3 of the methodology)/9/. A single project may include one or more baseline types. The addition of ACoGS baseline types for native grassland ecosystems into the revised methodology means that the applicability of this methodology has been dramatically expanded, and now can be used to address both planned and unplanned conversion in both forest and native grassland ecosystems. For the five baseline types associated with conversion of forest to non-forest, the agent of conversion can include a primary agent and secondary agents, which contribute to a cascade of degradation ultimately leading to a non-forest state.

Compared to approaches taken by other REDD and ACoGS methodologies, the approaches used in this methodology deviate significantly in three regards: First, the baseline emissions models predict cumulative emissions over time rather than an aerial rate of ecosystem conversion in hectares per year. Second, important parameters to the baseline emissions models are fit using simple point observations of land use conversion over a historic reference period rather than requiring a series of complex Land Use Land Cover (LULC) classifications of full-coverage satellite imagery. Third, accounting for the various sources of emissions from biomass is dramatically simplified by rolling all sources of potential emissions into a single model and parameterizing the model based on easily understood baseline types (Section 6.3 of the methodology).

In general, this methodology monitors carbon stocks using a sample of fixed area plots in the project accounting area(s) and proxy area(s). Lying dead wood is estimated using a line intersect sample, and soil organic carbon is estimated using samples removed from soil cores or pits located within the plots used for biomass estimation. This methodology also differentiates between merchantable trees and non-merchantable trees. In addition to improving sampling techniques, this differentiation allows project proponents to characterize the emissions from biomass as a result of logging in the baseline scenario. Additionally, if any livestock are being grazed within the project area, the emissions from these livestock are quantified and if they are found not to be *de minimis* (as per the general *de minimis* rule of the VCS), they will be subtracted in calculating the project's gross emissions reductions.

2 ASSESSMENT APPROACH

2.1 Method and Criteria

The validation consisted of the following three phases:

- A desk review of the new methodology against the VCSA requirements listed in Table 1 below.
- Follow-up interviews.
- The resolution of outstanding issues and the issuance of the final assessment report and opinion.

Table 1: Standards, methodologies, and other guidance by the VCSA

/1/	VCSA: VCS Program Guide, Version 3.5, 8 October 2013
/2/	VCSA: VCS Standard, Version 3.4., 8 October 2013
/3/	VCSA: AFOLU Requirements, Version 3.4., 8 October 2013
/4/	VCSA: Program Definitions, Version 3.5., 8 October 2013
/5/	VCSA: Methodology Approval Process, Version 3.5., 8 October 2013
/6/	VCSA: Methodology, Version 3.3., 8 October 2013
/7/	VCSA Tool for the Demonstration and Assessment of Additionality in VCS Agriculture, Forestry and Other Land Use (AFOLU) Project Activities, v3.0
/8/	VCSA: Approved VCS Methodology VM0009, Methodology for Avoided Deforestation, Sectoral Scope 14 , Version 2.1, 13 December 2012

2.2 Document Review

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

Table 2: Documentation provided by the project participants

/9/	Wildlife Works Carbon LLC: "Methodology for Avoided Conversion _v3.83". Version 3.83 dated: 12 January 2014
/10/	Wildlife Works Carbon LLC: "Methodology for Avoided Conversion _v3.76". Version 3.76 dated: 25 November 2013.
/11/	Wildlife Works Carbon LLC: "Methodology for Conversion_Redlined_ v3.72_and_v3.76 dated: 25 November 2013.
/12/	Wildlife Works Carbon LLC: Methodology for Avoided Conversion, Version 3.83, 12 Janauary

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/13/ VM0009 Revision_VCS-3_3 Methodology_Validation_Checklist_round2_WWCResponse v1.xlsx

/14/ New VM0009 Sections.ACoGS Sections v2.docx

/15/ Methodology_compare_v2-to-v3_v2.docx

/16/ First Assessment Report

2.3 Interviews

On November 27 and December 4, 2013 DNV GL held a conference call with Wildlife Works Carbon and performed interviews with the methodology developers.

	Date	Name	Organization	Topic
/17/	November 27, 2013 December 4, 2013	Jeremy Freund	Wildlife Works Carbon	Meth Revision
/18/	November 27, 2013 December 4, 2013	Simon Bird	Wildlife Works Carbon	Meth Revision
/19/	November 27, 2013 December 4, 2013	Gordon Smith	Wildlife Works Carbon	Meth Revision
/20/	November 27, 2013 December 4, 2013	Kyle Holland	EcoPartners	Meth Revision

2.4 Assessment Team

Listed below are the members of the assessment team, their roles, and the nature of their involvement.

Role/Qualification	***Last Name***	***First Name***	***Type of involvement***					
			Desk review	Interviews	Reporting	Supervision of work	Technical review	Expert input
Project Manager	Silon	Kyle				√		
Lead VCS Validator	Aalders	Edwin	√	√	√			
Sector Expert & VCS REDD Expert	Schmidt	Marcelo	√		√			√
Technical Reviewer	Kapambwe	Misheck C					√	

2.5 Resolution of Findings

The objective of this phase of the validation was to resolve any outstanding issues that needed be clarified prior to DNV GL's positive conclusion on the methodology 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.

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.

During the assessment the audit team raised 9 Corrective Action Requests and 9 Clarification Requests. Details of the individual CARs and CLs and the consequent close out information can be found in Appendix A of this report. DNV GL confirms that at the time of issuance all CARs and CLs have been closed by the audit team.

3 ASSESSMENT FINDINGS

The proposed revisions were found to be in full compliance with the principles set out in the VCS Standard. Specifically, new conversion scenarios for grassland baseline types contained in this methodology revision appear to be consistent with best practice and scientific consensus.

Grassland baseline types are defined in accordance with AFOLU Requirements and follow principles of the previous version of the methodology of using a project-tailored model approach.

The assessment process focused on the principles set forth by the VCS Standard:

- The revised methodology element adheres to the principle of relevance by selecting the GHG sources, GHG sinks, GHG reservoirs, data and methodologies appropriate to the needs of the VCS Program.
- The revised methodology element adheres to the principle of completeness by including all relevant GHG emissions and removals, and including all relevant information to support criteria and procedures.
- The revised methodology element adheres to the principle of consistency by enabling meaningful comparisons in GHG-related information.
- The revised methodology element adheres to the principle of accuracy by reducing bias and uncertainties as far as is practical.
- The revised methodology element adheres to the principle of transparency by disclosing sufficient and appropriate GHG-related information (i.e. giving sufficient and appropriate justification of procedures and criteria) to allow intended users to make decisions with reasonable confidence.

- The revised methodology element adheres to the principle of conservativeness by using conservative assumptions, values and procedures to ensure that net GHG emission reductions or removals are not overestimated.

3.1 Relationship to Approved or Pending Methodologies

This is an assessment of the revision to the previously approved methodology VM 0009, version 2.1/8/

3.2 Stakeholder Comments

DNV GL examined the methodology developer's response to 4 comments received from South Pole Carbon. The comments and associated responses are as follows:

1. COMMENT: The use and definition of *[m=1]*versus *[m=0]* within the Methodology.
    a. Response: The methodology developer explained to the need for *[m=1]* and *[m=0]* within the methodology, and provided the following clarifying text in section 2.2.8:

    "The superscript *[m=0]* indicates the value of a carbon pool at project start. These values remain constant throughout the project crediting period. In the case where project validation and the first verification event fall on the same date, then *[m=0]* parameters will be equal to *[m=1]* parameters.".

2. Comment: Ability to detect Grassland conversion by remote sensing in line with the GOFC-GOLD Sourcebook
    a. Response: Computer based interpretation will not be sufficient to identify changes in grassland usage, and therefore VM0009 tends to rely upon manual interpretation to identify conversion, while the overall Biomass Emission Module relies on the identification of non-natural shapes, such as agricultural fields, roads, and crops, etc. The methodology requires a minimum of 30 m special resolution, though encourages the use of higher resolutions and provides examples demonstrating how changes in grassland usage can be detected by trained eyes with 30 m resolution imagery

3. Comment: Definition of Post-grassland land uses
    a. Response: The Methodology was revised to include the following definition for grassland/shrubland - "Grassland and shrubland conversion shall be defined as, and limited to, the conversion of grassland or shrubland in its natural state to one of anthropogenic use. This includes the land-use categories of agriculture, development (including housing) or other anthropogenic land-use discernable from remotely sensed imagery. Conversion to grazing lands and/or pasture shall not be included in the grassland/shrubland converted category, for the following reasons:
        - In some cases, cattle or other crazing results in increased carbon stocks, and thus does not always represent a net carbon decrease.
        - It is conservative to exclude pasture/grazing lands from the converted category.
        - Pasture/grazing lands are highly difficult to identify using nominal remote sensing techniques, and would thus prove impossible to recognize with the BEM model.

    The conversion of natural grassland / shrubland should be discernable using the same techniques as used for REDD/IFM type baseline models. Pixel pattern, texture and context should be employed to delineate anthropogenically converted grassland / shrubland from its natural state, just as deforested areas are delineated from natural forest within the BEM."

4. Comment: The determination of baselines F-P1 and the use of expert knowledge and PRAs

a. Response: The methodology developer outlined the process for baseline determination. No changes to the methodology were necessary.

GL found that the methodology developer appropriately addressed each comment. No further comments were received.

3.3 Structure and Clarity of Methodology

The revision of the methodology did not impact the structure and or clarity of the methodology. Although the methodology differs to some extent in the way it functions and is presented it meets all requirements of the VCS in relation to REDD and AcoGS. The methodology allows the user to use or exclude any components within the methodology that are not relevant to the particular project creating and providing a great level of flexibility for the project proponent. On the basis that the methodology originally has been developed prior to the introduction of the methodology template by the VCS and because of its general, the methodology does not follow the current VCS methodology template. Nonetheless all information demanded by the VCS methodology template can be found in the methodology.

In line with this observation and because the methodology contains a high level of modelling, the methodology developer has moved all the applicable equations within the methodology to a separate appendixes which greatly enhance the readability of the methodology. Hyperlinks within the methodology will aid those users that want to jump directly to a respective equation or any of the other references within the methodology. As part of the revision the methodology has also been updated with the latest requirements of the VCS in relation to standardised language usage and the specific predefined VCS key terms such as *must*, *should* and *may*.

The methodology's high level flexibility as well as the enhanced level of modeling requires the user of the methodology to pay specific attention to the language used within the methodology and in particularly in relation to the use of definitions which will help the user to understand which requirements within the methodology are applicable to its project and which not.

3.4 Definitions

The methodology is providing a clear list of definitions which are consistently used throughout the methodology. The list of definitions can be found at the beginning of the methodology following the executive summary of the methodology. On the basis of this comprehensive list of definitions and terms, the reader is able to clearly understand the methodology, its intent and the requirements set-out within. Apart from the revision of the methodology a number of new definitions and terms have been included and a number of existing ones have been modified in order to accommodate changes within the VCS requirements and the extension of scope of the methodology.

As a result of assessment findings, a number of the definitions and terms have been modified or changes have been made to the methodology text to assure consistent usage of the definitions and terminologies. For more details please study the respective CARs (CAR 1, 2, 7) & CLs (CL 1, 2, 3, 4, 7) found in Appendix A below.

3.5 Applicability Conditions

The methodology has set out a number of applicability criteria which follow the same principles as those that were applied within the previous version of the methodology. Where necessary the applicability criteria have been expanded to specifically allow ACoGS activities to be included while others have been aimed to restrict the overall scope of the ACoGS to specific project types.

For this methodology to be applied, project activities must satisfy the following conditions:

Applicability Criteria	**Audit Team Findings**
1. This methodology was developed for avoiding land use conversion of forest and native grassland ecosystems. The drivers and agents of conversion in the baseline scenario must be consistent with those described in Section 6 of this methodology and the end land use in the baseline scenario is non-forest or converted native grassland. Accordingly, the project activity must be APD or AUDD for forested project accounting areas and APC or AUC for grassland project accounting areas.	The methodology is found to be in line with the requirements set out in AFOLU Requirements Section 4.2.9.1, 4.2.9.2 as well as the intended scope of the methodology
2. All project accounting areas must have been in an unconverted state (i.e., forest or native grassland) for at least 10 years prior to the project start date, according to the following: a. Land in all forested project accounting areas has qualified as forest on average across the project accounting areas as defined by FAO 2010 or as defined by the residing designated national authority (DNA) for the project country for a minimum of 10 years prior to the project start date. b. Land in all grassland project accounting areas has qualified as native grassland or shrubland for a minimum of 10 years prior to the project start date.	The methodology is found to be in line with the requirements set out in AFOLU Requirements section 4.2.5, 4.2.10 and 4.2.11
3. For project accounting areas of baseline type U (unplanned), a conversion threat must exist for each project accounting area as demonstrated by one of the following two options: a. Imminent conversion as predicted by a survey (see definition of imminent conversion). Moderate risk is defined as when more than 60% of respondents predict the end land use identified in the baseline scenario. The survey must meet the requirements of Appendix E. OR b. As of the project start date, some point within 2 kilometers of the perimeter of the project accounting area has been converted to the end land use identified in the baseline scenario (Broadbent et al., 2008).	The methodology provide criteria on the type of survey (Appendix E of the methodology) that will provide the project proponent with the necessary evidence to determine whether one of the two options are met to demonstrate the conversion threat
4. In the case of baseline type F-U1, at least 25% of the project area boundary is within 120 meters of deforestation and at least 25% of the project area boundary is adjacent to the reference area (see Section 6.3).	Not subject to change as part of this methodology revision
5. In the case of baseline type G-U1, at least 25% of the project area boundary is adjacent to the reference area (see Section 6.3).	The determination of G-U1 is based on the same principles as the determination of F-U1 included in the previous version of the methodology. However it is now adopted to assess native grassland vegetation areas.
6. In the case of baseline type F-U2, at least 25%	Not subject to change as part of this methodology

of the project area boundary is within 120 meters of deforestation (see Section 6.3).	revision
7. The project accounting area(s) must not contain peat soil.	This is found to be in line with the requirements set out in AFOLU Requirement Section 4.2.11
8. For each project accounting area, a reference area can be delineated for each baseline type in the baseline scenario that meets the requirements, including the minimum size requirement, of Section 6.8.1 of this methodology.	Although the revision of the methodology resulted in the possibility of creating new project accounting areas, the actual requirements for selection criteria have not changed from the previous version of the methodology. The ACoGS baselines scenarios have been planned (G-Px) and unplanned (G-Ux) have been correctly included in Sections 6.8.1.2 and 6.8.1.3
9. As of the project start date, historic imagery of the reference area(s) exists with sufficient coverage to meet the requirements of Section 6.8.4 of this methodology.	Not subject to change as part of this methodology revision
10. Project activities are planned or implemented to mitigate ecosystem conversion by addressing the agents and drivers of conversion as described in Section 8.3.1 of this methodology.	The methodology, by means of decision tree (Figure 2), is able to clearly identify the different agents and drivers and consequently, requirements for the mitigation strategy are clearly defined by the methodology.
11. The project proponent has access to the activity-shifting leakage area(s) and proxy area(s) to implement monitoring (see Sections 8.3.2.1 and 6.4), or has access to monitoring data from these areas for every monitoring event.	Although due to the extension of the scope of the methodology, Sections 8.3.2.1 and 6.4 had to be amended to include the new scope, the concept itself has not be changed from the previous version of the methodology.
12. If logging is included in the baseline scenario and a market-effects leakage area is required per section 8.3, then the project proponent has access to (or monitoring data from) the market-effects leakage area if measurement is needed (see Section 8.3.3).	Not subject to change as part of this methodology revision
13. This methodology is applicable to all geographies, however if SOC is a selected carbon pool and the default value from Section 6.19.2 is selected then the project must be located in a tropical ecosystem.	The revision of the methodology considered whether alternative criteria should be considered. Fundamentally, there are no differences between the Forest and Grassland conversion processes, hence no changes were made to the actual requirements as part of this methodology revision.
14. If livestock are being grazed within the project area in the project scenario, there must be no manure management taking place, as emissions from N_2O as a result of manure management are not quantified or addressed in this methodology.	The exclusion is found to be in line with the requirements set out in AFOLU Requirement Section 4.3.3, 4.3.4 and 4.3.19. By the explicit exclusion of manure management in the project scenario, the methodology has set out clear criteria to account for CH4 emissions from enteric fermentation and CH_4 and N_2O emission from manure.
15. Project activities must not result in significant GHG emissions. All GHG emissions from project	The is found to be in line with the requirements set out in AFOLU Requirement Section 4.3.3

activities must be shown to be *de minimis* (see Section 8.3.1).	

3.6 Project Boundary

The VCS Standard requires that the methodology establish criteria and procedures for describing the project boundary and identifying and selecting optional carbon pools, i.e. sources, sinks and reservoirs relevant to the baseline and project scenarios. Procedures to quantify emissions are included for each of these pools and sources for theproject, in order to demonstrate the significance the methodology uses the appropriate VCS tools.

The methodology has retained the principles in determining the project spatial, temporal and gaseous boundaries during the revision of the methodology and were necessarily expanded to address the inclusion of native grasslands within the carbon pools etc. The methodology clearly requires that each project defines its physical boundaries as well as the greenhouse gases and carbon pools. In order to define the project boundaries the methodology not only uses the terminology of "project area" but also the term "project accounting area" (Table 3). This distinction is specifically relevant to the methodology's modelling approach to the dynamics that may occur within the project area as a result of the project implementation. The user of the methodology would need to have a good understanding of this methodology's usage of the two terms in order to be able to correctly implement the project and its requirements in relation to project boundaries.

To demonstrate this, the methodology has further included and elaborated its visual aid, Figure 1, that outlines the possible combinations that need to be considered when implementing the methodology. The spatial boundaries in this methodology were assessed for conformance to the VCS rules and found to be sufficiently detailed and appropriate for the project scenarios. The audit team found the revision of the methodology resulted in the methodology being in line with AFOLU Requirements Section 4.2.14 /3/.

Area	Description	Quantity	Size relative to project area
Project area	The area under control of the project proponent which contains at least one project accounting area.	Only one.	Equal
Project accounting area	The area to which the baseline emissions models are applied. A forest or native grassland area within the project area that is subject to conversion in the baseline scenario as delineated by Section 6.2.	One for each identified baseline type.	Less than or equal
Reference area	An area in the same region as the project area that is similar to the project area in regards to acting agents of conversion, acting drivers of conversion, socio-economic conditions, cultural conditions and landscape configuration.	One for each identified baseline type.	Greater than or equal
Proxy area	The area where residual carbon stocks (after conversion, the end state) are estimated for each baseline type.	One for each identified baseline type.	No prescribed size
Activity-shifting	The area where leakage resulting from the activities of the agent of conversion would likely	One for each identified baseline	No prescribed size

leakage area	occur due to the project activity(ies).	type.	
Market-effects leakage area	The area where leakage would likely occur resulting from a change in the supply of wood products due to the project activity(ies).	One if the baseline scenario includes commercial logging.	No prescribed size

Table 3: Description of carbon accounting areas.

As per the requirements of the VCS AFOLU /3/ related to REDD and ACoGS project categories, the project categories that are applicable are *Avoided Planned Deforestation and/or Degradation* (APDD), *Avoiding Unplanned Deforestation and/or Degradation* (AUDD), *Avoiding Planned Conversion* (APC) and *Avoiding Unplanned Conversion* (AUC).

Table 4 provides the overview of the Gasses that are included within the methodology. Table 5 provides the overview of the mandatory and optional pools that are used within the methodology as well as the findings of the assessment. The individual pools were found to be appropriate for planned and unplanned conversion of forests to non-forest state and native grasslands conversion to a non-native state. The audit team found the revision of the methodology resulted in the methodology being in line with AFOLU Requirements Sections 4.3.19 and 4.3.20 /3/.

Gas	Sources	Inclusion	Justification
CO_2 (Carbon Dioxide)	Flux in carbon pools	Yes	Major pool considered in the project scenario
CH_4 (Methane)	Burning of biomass	No	Conservatively excluded
	Livestock	Yes	A required source when emissions from grazing are not *de minimis*
N_2O (Nitrous Oxide)	Burning of biomass	No	Conservatively excluded
	Livestock	No	Excluded on the basis of applicability condition 14.
	Synthetic fertilizer	Yes	Included if not *de minimis*

Table 4: Included GHG sources.

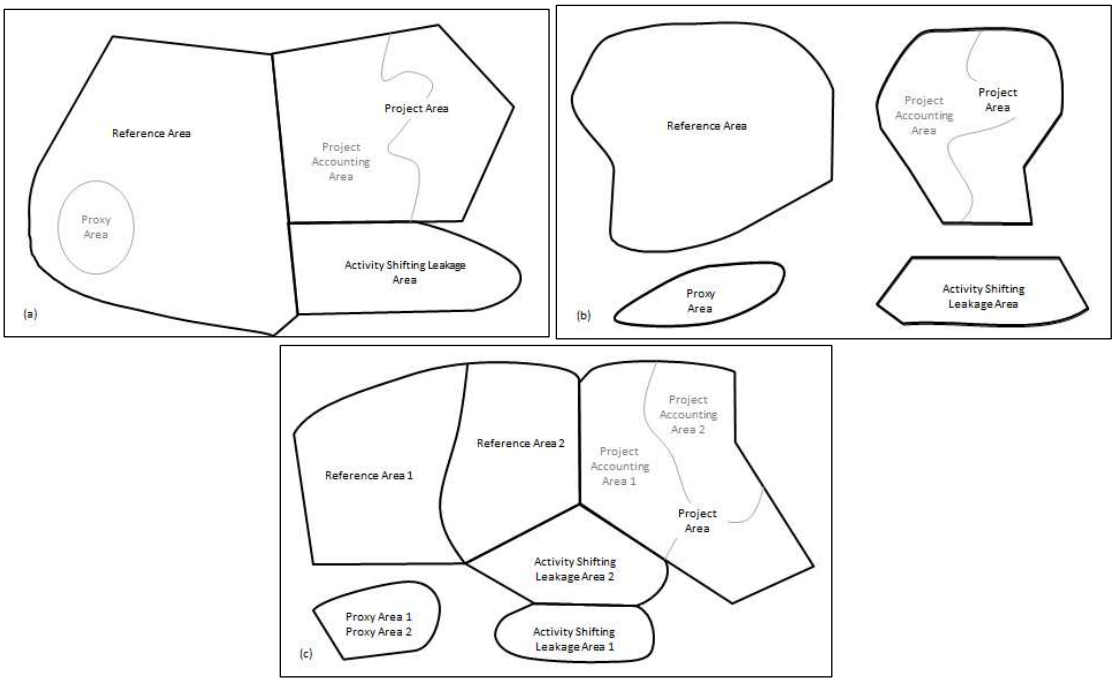


Figure 1: Three example configurations of areas for a single project instance.

(a-b) A project area containing one project accounting area, one associated reference area, proxy area and activity-shifting leakage area.

(c) A project area containing two project accounting areas, and an associated reference area, proxy area and activity-shifting leakage area for each project accounting area. The proxy areas happen to be identical.

Pool		Required	Justification	Team Findings
AGMT	Above-ground merchantable tree	Yes if baseline scenario or project activity(ies) include the harvest of long-lived wood products, otherwise No	Major pool considered when accounting for emissions from long-lived wood products	In line with Table 2 of the AFOLU Requirements in relation to Above Ground Tree Biomass.
AGOT	Above-ground other (non-merchantable) tree	Yes	Major pool considered	In line with Table 2 of the AFOLU Requirements in relation to Above Ground Tree Biomass.
AGNT	Above-ground non-tree	Optional (Yes, if the baseline scenario includes perennial tree crop)	May be conservatively excluded (Not conservative to exclude if baseline scenario includes perennial tree crop)	In line with Table 2 of the AFOLU Requirements in relation to Above Ground Non-Tree Biomass.
BGMT	Below-ground merchantable tree	Optional	May be conservatively excluded	In line with Table 2 of the AFOLU Requirements in relation to Below Ground Biomass.
BGOT	Below-ground other (non-merchantable) tree	Optional	May be conservatively excluded	In line with Table 2 of the AFOLU Requirements in relation to Below Ground Biomass.
BGNT	Below-ground non-tree	Optional	May be conservatively excluded	In line with Table 2 of the AFOLU Requirements in relation to Below Ground Biomass.
LTR	Litter	No	Always conservatively excluded	In line with Table 2 of the AFOLU Requirements in relation to Litter
DW	Dead wood	Yes, if AGMT is selected	May be a significant reservoir from slash under the baseline scenario	In line with Table 2 of the AFOLU Requirements in relation to Dead wood
SD	Standing dead wood	Optional	May be conservatively excluded	In line with Table 2 of the AFOLU Requirements in relation to Dead wood

LD	Lying dead wood	Optional	May be conservatively excluded	In line with Table 2 of the AFOLU Requirements in relation to Dead wood
SOC	Soil organic carbon	Optional	May be conservatively excluded	In line with Table 2 of the AFOLU Requirements in relation to Soil.
WP	Long-lived wood products	Yes if AGMT is selected	May be a significant reservoir under the baseline scenario	In line with Table 2 of the AFOLU Requirements in relation to Wood products.

Table 5: Required and optional carbon pools for forested project accounting areas and justifications.

3.7 Baseline Scenario

The baseline scenario identification is following the same principles as defined within the original methodology whereby through a decision tree the right baseline scenario is being defined for the respective project accounting area. The original decision tree (Figure 2) has been expanded to include the baseline scenarios relevant for Forest as well as Grassland. The decision tree reflects identification of the different agents and drivers that may lead to a conversion of forests or native grasslands into state of non-forest or no-native grassland.

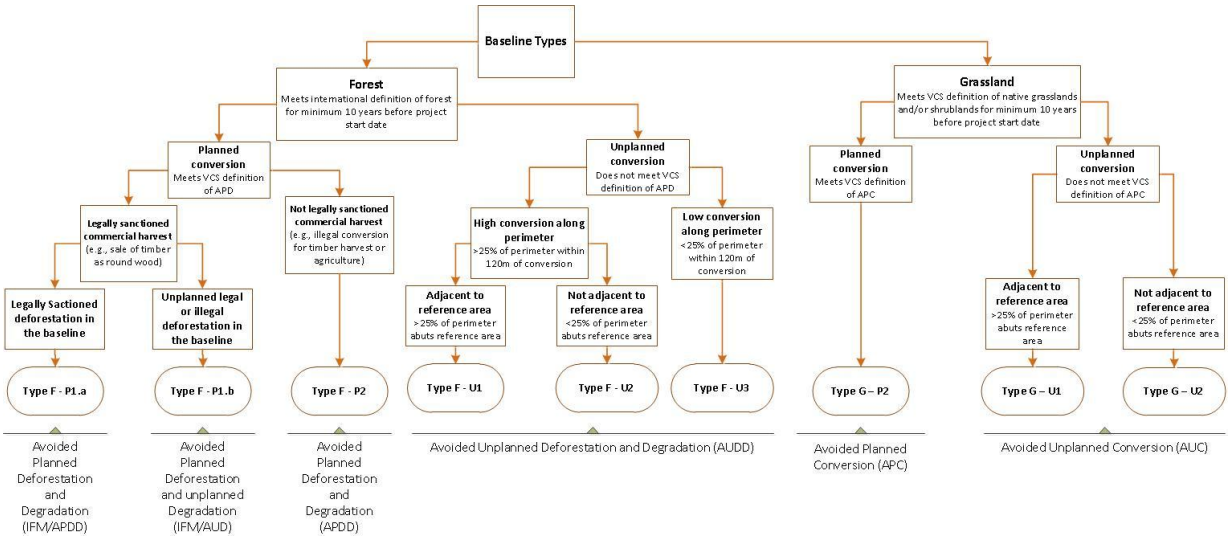


Figure 2: Decision tree for determining baseline types.

As the methodology allows the project to have multiple project account areas to be defined within the project area, the methodology consequently allows a project to have multiple baseline scenarios to be identified. The project areas can however not hold more baseline scenarios than there are project accounting areas.

In order to facilitate this process the methodology has developed a decision tree that outlines the process of the required steps to select the baseline scenario as well as the consequent process of referencing and modelling.

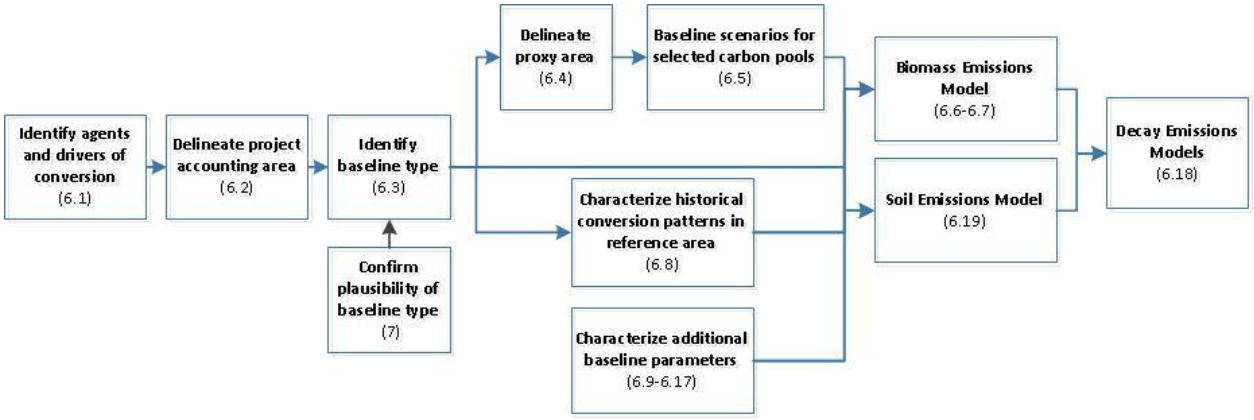


Figure 3: Determination of the baseline scenario

Inclusion of Grassland

DNV GL confirms that the methodology and its procedures are appropriate, complete and in compliance with the VCS & VCS AFOLU rules and regulations /3/ and that the revision introduced all requirements related to AcoGS. Particularly those in relation to:

- 4.3.19 – where the methodology accounts for any emissions from livestock/grazing animals, as well as it limits itself by the fact that livestock grazing or conversion to pasture must not be the primary driver of conversion;
- 4.4.8 – where the methodology accounts for any emissions from livestock/grazing animals under APC and Net Present Value (NPV) is increased;
- 4.4.9 – where the methodology requires that the project provides evidence that it meets the current definition of APC and that NPV is increased, where it does not meet the definition of APC a spatial model is required to demonstrate that the reference area is at least 25% adjacent to the project area.
- 4.5.3. – where the methodology captures the patterns of carbon loss using carbon and decay emission models over time and through the appropriate carbon pools.

Revision of Type F – P1

DNV GL confirms that the methodology and its procedures are appropriate, complete and in compliance with the VCS & VCS AFOLU rules and regulations /3/ and that the revision introduced all requirements related to IFM (F – P1a) and REDD (F-P1b), including:

- 4.2.3 –the methodology accounts for any emissions from deforestation where by the primary agent is based on legally sanctioned logging operations (F –P1a) and illegal/unsanctioned logging operations (F-P1b);
- 4.3.1 –the methodology accounts for all carbon pools in line with the VCS AFOLU Requirements;
- 4.4.4 –the methodology requires that the project provides evidence that it meets the current definition of APD of the VCS AFOLU and it needs to comply with all the VCS AFOLU Requirements for IFM and REDD.
- 4.5.13 & 4.5.14. –the methodology captures the patterns of carbon loss using carbon and decay emission models over time and through the appropriate carbon pools.
- All previous requirements for F-P1 have now been captured and transferred to F-P1b (REDD).

3.8 Additionality

The methodology continues to use the latest version of the VCS "Tool for the Demonstration and Assessment of Additionality" and during the revision of the methodology, no changes have been made to the requirements to demonstrate additionality. The methodology consequently continues to satisfy the requirements of the VCS.

3.9 Quantification of GHG Emission Reductions and Removals

3.9.1 Baseline Emissions

In line with previous version of the methodology, the revised methodology uses a series of statistical algorithms to determine the baseline emissions whereby each "project accounting area" has an allocated baseline reference area outside the project area which is systematically sampled in order to obtain the relevant parameter values needed to run the algorithms of the baseline emissions (see Figure 3). To calculate the baselines the methodology requires the project to identify a number of permanent sample plots outside the project area which represent the baseline scenario(s) which during each monitoring period are assessed and the collected data is included in the baseline calculations.

Sections 6 and 8 of the methodology describe in detail the procedures which are to be followed in order to quantify the baseline emissions in line with the VCS AFOLU Requirements. The revision of the methodology takes into account all the necessary changes needed to quantify baseline emissions associated to the ACoGS as defined in 4.5.18 to 4.5.24 of the VCS AFOLU Requirements /3/.

The assessments identified that in a number of cases the revision of the methodology had not fully integrated the necessary updates in order to allow the quantification of the baseline emissions, although the overall principles of the modeling used within the methodology has not changed from the previous version of the methodology. For more details please study the respective CARs (CAR 5, 8) & CLs (CL 7) found in Appendix A below.

The baseline emission model approach includes all the GHG sources, sinks, and carbon pools as specified and selected by the project. Although the methodology comprises a large number of calculations needed to maintain the flexibility within the methodology application, the actual equations used by the individual projects can be greatly reduced as a result of the selection the project participant makes in terms of the project activities. The baseline emissions models for biomass and soil organic carbon are robust and able to consistently predict cumulative emissions over time. Parameters included within the models to identify the baseline scenario and baseline emissions are in line with the VCS AFOLU Requirements of 4.4.4, 4.4.7 and 4.4.9 /3/.

3.9.2 Project Emissions

The quantification of the project emission has not fundamentally changed as part of the revision of the methodology (Sections 8.2, 8.3, 8.4 and 9 of the methodology). The methodology requires the project to monitor the emissions that occur within the project as a result of fire, burning, forestry, grazing or other disturbances.

The methodology works on the premise that the project carbon pools within the individual project accounting areas will remain steady and not increase overtime and as such the ALM accounting rules will not need to apply (AFOLU requirement 4.5.20 /3/). Nonetheless, the model does not exclude that individual monitoring plots may show some increase in its carbon pool based on some local variation within the state of the carbon pool over time. At the same time the monitoring will also show some reductions in the carbon pool and as such the overall result of the model are assumed to show that any localized increases or decrease within the

respective carbon pools will result in a steady state for the carbon pool of the respective project accounting area.

In the event that the project activities include the use of synthetic nitrogen fertilizers the methodology through Sections 5.3, 8.2.5, Appendix H and J assures compliance with the VCS AFOLU Requirements 4.5.18 /3/.

In response to the CARs and CLs raised by the audit, the assessment showed that the methodology covered all the GHG sources, sinks and reservoirs as required by the VCS rules. All equations and respective parameters were checked and found to be complete and appropriate and free of material mistakes. For more details in relation to the CARs (CAR 2, 5, 9) and CLs (CL 8) raised can be found in Appendix A below.

3.9.3 Leakage

The procedures and the method of identifying leakage have been updated to include the grassland component of the methodology as well as the newly introduced VCS JNR leakage tool; however the fundamentals behind the determination of leakage and market leakage have not been changed. The methodology directs the user to the appropriate leakage calculation method via a step-wise approach, and provides a decision tree for the determination of market leakage as necessary. The methodology identifies leakage by individual project accounting area, as well as by displacement or market effect leakage. This is in line with the VCS AFOLU Requirements 4.6.1, 4.6.2., 4.6.13, 4.6.14, 4.6.15, 4.6.16, 4.6.17 and 4.6.18 /3/.

The methodology defines that emissions from activity-shifting leakage are calculated using the Leakage Emissions Model and an activity-shifting leakage area, while emissions from market-effects leakage are estimated using a market-effects leakage area and default values specified in the AFOLU Requirements.

In order to define market leakage as well as the method of calculating/estimating market leakage the methodology applies the decision tree found in Figure 4.

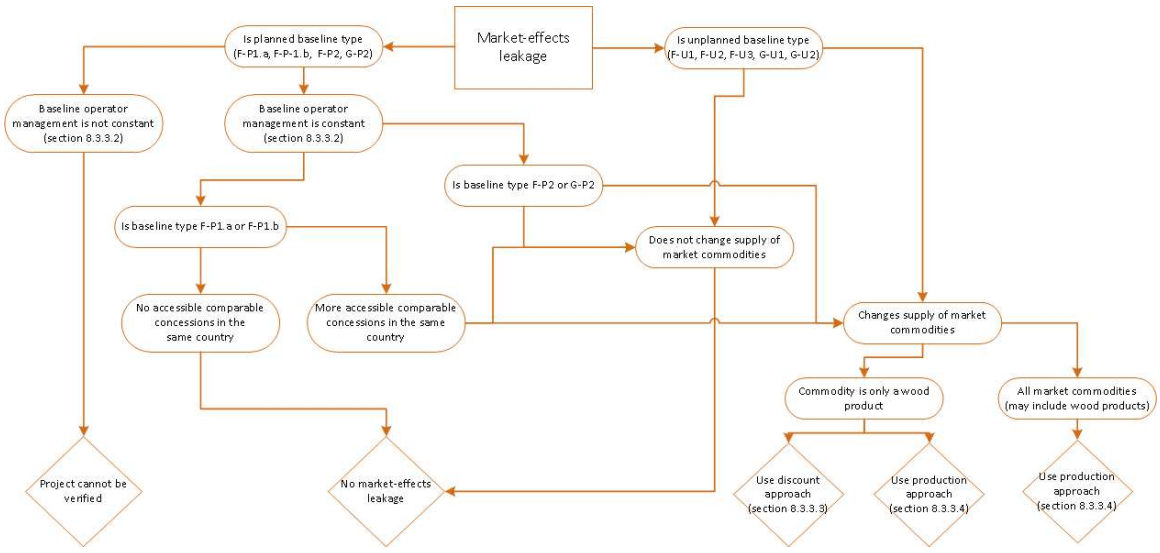


Figure 4: Decision tree to determine market-effects leakage approach.

Methodology Section 8.3.1 requires the implementation of leakage mitigation strategies for at least one of the identified conversion drivers identified by the project. Where this mitigation strategy includes project activities that would lead to project GHG emissions the methodology requires that these are demonstrated to be *de minimis* in nature either through peer review literature or by using the CDM A/R methodology tool for testing significance of GHG emissions in A/R CDM Projects, which is in line with VCS AFOLU Requirements 4.6.6 /3/.

According to Section 8.3.3.4 of the Methodology, a project that includes commodities other than wood products must apply the VCS Global Commodity Leakage module: Production Approach **Error! Reference source not found.**. Although the tool is principally designed for the Jurisdictional programmes of the VCS, the concept is relevant in this case because the methodology includes ACoGS activities. These activities that tend to generate non-wood product commodities with leakage impacts that are most appropriately quantified at the regional or national levels.

The methodology is in compliance with the VCS requirements for REDD and ACoGS project categories ADP, AUDD, APC, and AUC and its procedures for calculating leakage are complete and accurate.

3.9.4 Net GHG Emission Reductions and Removals

For each monitoring period the methodology requires the quantification of net GHG emissions reductions and removals (NERs) by subtracting gross reductions and removals (GERs) from the buffer amount allocation. The methodology addressing uncertainty through the use of weighted standard errors of estimates from the baseline emissions models and carbon stock measurements. In line with the requirements of 4.7 of the VCS AFOLU Requirements /3/, the methodology in Section 8.4 calculates the emissions reductions and removals correctly and free of errors.

3.10 Monitoring

The criteria for the monitoring plan and monitoring activities are based on the requirements set out in the previous version of the methodology and as such in line with the VCS AFOLU Requirements 4.8 /3/. Below is an overview of the specific parameters and processes that were added to the methodology in relation to the scope extension of the methodology. The methodology has listed all Parameters to be assessed as part of the Validation in Appendix G of the methodology and those that need to be monitored as part of the project implementation are listed in Appendix H of the methodology.

Appendix G: Validation Variables

Two new parameters have been introduced as part of this revision:

- $\mathcal{T}$, which represents all species/categories of livestock responsible for grazing within the project area and used to equate the current greenhouse gas emissions from livestock grazing $E^{[m]}_{P\,\Delta\,LS}$ that is being calculated in equation [F.43] of the methodology which uses IPCC Good Practice Guidelines and IPCCC Guidelines for National Greenhouse Gas Inventories. This parameter is properly justified; and
- $f_{LS\,i}$, which represents the emission factor for the defined livestock population, *i* within equation [F.43] of the methodology and is directly derived from the IPCC default values. This parameter is properly justified.

Appendix H: Monitoring Variables

- $E^{[m]}_{L\,ASG}$, which represents the cumulative emissions from activity-shifting leakage in native grassland strata at the end of the current monitoring period. The parameter is being used in equation [F.44] and [F.45]. The inclusion of this parameter is correctly defined and included to account for leakage and the applicability condition 11 of the methodology;
- $\mathrm{E}^{[\mathrm{m}]}_{\mathrm{P\,\Delta\,LS}}$, which represents the cumulative project emissions due to livestock grazing within the project area and used in equation [F.43] of the methodology. The inclusion of this parameter is correctly defined as livestock grazing within the project area and baseline scenario may occur.
- $E^{[m]}_{P\,\Delta\,SF}$, which represents the cumulative project emissions due to the use of synthetic fertilizers within the project area and used in equation [F.53] of the methodology. The inclusion of this parameter is

correctly defined as the methodology requires the accounting of direct and indirect emissions from nitrogen fertilizer within the project area.

- $n_{LS\,i}$, which represents the number of head of livestock species/ category i in the project area and used in equation [F.43] of the methodology. This parameter is relevant and correctly defined as livestock may occur within the project area.
- $p_{L\,CON\,G}^{[m]}$, which represents the portion of leakage due to native grasslands prior to the first verification event and used in equation [F.47] and [F.49] of the methodology. The parameter is relevant and correctly defined as it relates to the specific leakage for project accounting areas defined to be part of the native grasslands baseline scenario.
- $p_{L\,CON\,G}^{[m]}$, which represents the portion of leakage due to native grasslands conversion at the beginning of the current monitoring period and used in equation [F.47] and [F.49] of the methodology. The parameter is relevant and correctly defined as it relates to the specific leakage for project accounting areas defined to be part of the native grasslands baseline scenario.
- $p_{L\,CON\,G}^{[m-1]}$, which represents the portion of leakage due to native grasslands conversion at the end of the current monitoring period and used in equation [F.47] and [F.49] of the methodology. The parameter is relevant and correctly defined as it relates to the specific leakage for project accounting areas defined to be part of the native grasslands baseline scenario.

No further changes were made to the parameters in Appendix G and H. All changes were found to be in line with the scope extension and the VCS AFOLU Requirements 4.8 /3/.

4 ASSESSMENT CONCLUSION

DNV GL *(U.S.A) Inc* has performed a validation of the "Methodology for Avoided EcoSystem Conversion" Version 3.83. The validation was performed on the basis of VCSA criteria for methodologies as well as criteria given to provide for consistent project operations, monitoring and reporting.

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

The "Methodology for Avoided EcoSystem Conversion" , correctly applies the requirements set out under the VCS Program Guide, version 3.5, VCS Standard, version 3.4, AFOLU Requirements, version 3.4..

Projects applying the methodology will result in reductions of CO_2 / CH_4 / N_2O emissions which are real, measurable and give long-term benefits to the mitigation of climate change. It is demonstrated that by applying the methodology projects are able to demonstrate that they are not likely to be the baseline scenario. Emission reductions attributable to the project applying and meeting the requirements of the methodology are hence additional to any that would occur in the absence of the project activity.

In summary, it is DNV GL's opinion that the revisions proposed by "Methodology for Avoided EcoSystem Conversion" in Version 3.83 12-01-2014/9/ as described therein, meets all relevant VCSA requirements for the VCS Methodologies. Hence, DNV GL recommends the approval of the revision as the revised VCS VM0009 Methodology.

5 REPORT RECONCILIATION

Not Applicable as this is the first draft of the second validation.

6 EVIDENCE OF FULFILMENT OF VVB ELIGIBILITY REQUIREMENTS

DNV (U.S.A.), Inc. holds accreditation to perform validation for projects under Sectoral Scope 3 (agriculture, forestry, other land use) under the American National Standards Institute (ANSI). DNV GL, therefore, is eligible under the VCS Program to perform assessments for the MED, which falls under the Sectoral Scope 3.

7 SIGNATURE

Signed for and on behalf of:

Name of entity: *_DNV (U.S.A) Inc_____*

Signature: 

Name of signatory: *Dave Knight_____*

Date: *2/12/14_____*

APPENDIX A

CORRECTIVE ACTION REQUESTS AND CLARIFICATION REQUESTS

Corrective action requests

CAR ID	Corrective action request	Response by Project Participants	DNV GL's assessment of response by Project Participants
CAR 1	**Requirement**: 2.4.1 VCS Standard **Non-Compliance**: Definitions not clear and transparent **Objective evidence**: • **The definitions** "*imminent conversion": states that the moderate risk of land use change by the agetns of conversion within a portion of the project accounting areas and within 10 years of the project start date. The term "portion of project accounting area*" is not clear and appears to suggest that a new project accounting area is being created	Accepted and revisions made: We did not intend to suggest that the definition of "imminent conversion" related to a new or separate project accounting area. As the auditor points out, the current definition is admittedly somewhat unclear. The intended current definition of imminent conversion is: moderate risk of land use change to *part of* the existing project accounting area. We have modified the definition, which now reads: "*The moderate risk of land use change to a portion of the project accounting area and within 10 years of the project start date by the agents of conversion.*" We contend that this clarification makes it evident to project developers that the definition applies to the existing project accounting area(s). **WWC Response Round 2** In response to the Validators observation: The option to demonstrate conversion threat contained in applicability condition 3a has been removed from the methodology. The option contained in 3a allowed the project developer to demonstrate the threat of conversion with the use of a model. However, due to the validator's findings during the methodology's first assessment we elected to remove this as option, as the remaining 2 methods provided were deemed to be sufficient.	DNV GL has assessed the response and concurs with the revision made in order to outline the intent of the definition. **CAR Closed** **Observation**: In the applicability criteria 4 condition 3 moderate risk appears to be always defined as >0.6 change of conversion. As such this could also be included within the definition itself.
CAR 2	**Requirement**: VCS Standard 4.3.1 requires the methodology to have applicability criteria and the conditions under which they should be used and implemented **Non-Compliance**: Methodology applicability criteria provide REDD, IFM and ACoGS project activities, However the methodology is not consistent in its use of	Accepted and revisions made: The issues of clarity and consistency sited by the Validator in the use of definitions resulted from an oversight during the methodology revision process. As in any revision, the definitions and use of parameters are changed as new elements are added to the methodology. However, in some instances, the use of an old definition or parameter was overlooked during the revision process. That said, we made the following revisions to ensure absolute clarity in the interpretation of definitions and	DNV GL Assessed the modification of made and verified that:

CAR ID	Corrective action request	Response by Project Participants	DNV GL's assessment of response by Project Participants
	definitions and parameters. **Objective evidence:** • The methodology defines "*project accounting area*", "*forest project accounting area*" and "*grassland project accounting area*" o It is not clear what is the difference between a "*project accounting area*" and "*forest project accounting area*" o Section 6.10 to 6.20 "project accounting area" seem to be used either as "*forest project accounting area*" or both "*forest project accounting area*" and "*grassland accounting area*" • The methodology uses F-P1.a, F-P1.b, F-U1, F-U2, F-U3, G-P1, G-P2, P1, P2, U1, U2, U3 to define the different baselines of project accounting areas but not consistently used so not clear in Section 8 and Appendix F if the requirement is only for forested areas or grassland or both. • Methodology defines "*grassland*" and "*native grassland*" but not consistently used within the methodology	parameters. • We agree with the Validator that the usage of the term "project accounting area", "forest project accounting area" and "grassland project accounting area" were not entirely consistent and clear. The methodology has been revised to rectify these ambiguities. In section 2.1.2, we added a sentence stating that all project areas must contain at least one project accounting area, and that they must meet the definition of either "forest project accounting area" or "grassland project accounting area". Additionally, section 2.1.2 now states that the use of the general term "project accounting area" is for instructions or requirements that apply to both "forest project accounting areas" and "grassland project accounting areas". If the methodology states "forest project accounting area" or "grassland project accounting area" then the instructions or requirements will apply specifically only to those specific "forest" or "grassland" baseline types, respectively. • The inconsistencies in baseline identifiers noticed by the validator were present due to errors during the revision to expand the methodology to include ACoGS baseline types. Wildlife Works has corrected all of these inconsistencies and ensured that all references to baseline types are now correct. (multiple sections) • Wildlife Works has corrected the usage of the terms "native grassland" and "grassland" in the methodology. We have refined the definition of the *unconverted* state of the grassland baseline types to be "native grassland." Now, all references to the *unconverted* state of this baselines type will read "native grassland." Whereas, "grassland" will be used only as part of the name of grassland baseline types,	Usage of terms: "project accounting area" to be used when requirements are applicable for both project accounting areas classified as forest and project accounting area classified as grassland "forest project accounting areas" to be used when requirements are only applicable for project accounting areas classified as forests. "grassland project accounting areas" to be used when requirements are only applicable for project accounting areas classified as native grassland. Referencing the Baseline idenfiers: Usage of F-P1.a, F-P1.b, F-U1, F-U2, F-U3, G-P1, G-P2, P1, P2, U1, U2, U3 is in line with the appropriate conditions and requirements throughout the methodology Usage of terms: "native grassland" to be used to define grassland type under threat of conversion in the baseline scenario "grassland" to be used to differentiate between the type of project accounting area or baseline. **CAR Closed**

CAR ID	Corrective action request	Response by Project Participants	DNV GL's assessment of response by Project Participants
		and associated areas (e.g. "grassland project accounting area"). We believe that this will add clarity to the methodology and reduce any previous confusion.	
CAR 3	**Requirement**: VCS AFOLU 4.2.13 Project activities under AcoGs project category are those that … or unplanned (unsanctioned) conversion on public or private land **Non-Compliance**: Methodology does not define unplanned degradation of grassland, nor does it exclude it from the methodology applicability conditions. **Objective evidence:** • methodology defines unplanned deforestation however it does not define unplanned degradation of grassland	Wildlife Works believes that this CAR is no longer relevant: The only baseline scenario that could lead to degradation of grassland is that of livestock grazing or pasture use. The definition of "grassland conversion" in VM0009 has been revised to exclude conversion for livestock grazing or pasture (due to other CARs and CLs, including some from the previous validation). This was done for several reasons, including the fact that we contend conversion of grasslands to livestock grazing or pasture is impossible to identify using satellite imagery, an absolute requirement of data collection for the baseline emissions model (BEM). Therefore, with this new more restrictive definition of grassland conversion, we feel that it would not be possible for degradation of grassland to be a component of any baseline scenario allowed in this methodology. All baseline scenarios for grassland conversion allowed within VM0009, such as agriculture or development, result in almost immediate conversion of the native grassland to another land use, which constitutes "conversion" only, and not "degradation".	DNV GL has assessed the revisions in the applicability conditions and definitions proposed by the Wildlife Works and has verified that with the reduction of scope the degradation of grassland is no longer within the scope of the methodology. **CAR Closed**

CAR ID	Corrective action request	Response by Project Participants	DNV GL's assessment of response by Project Participants
CAR 4	**Requirement**: VCS Methodology template **Non-Compliance**: Editorial errors **Objective evidence:** 1. Document contains a number of bookmark errors "*Error! Reference source not found*" 2. Section 6.8.1.3: "*msut*"	Accepted and revisions made: These errors and misspellings were again an oversight during the methodology revision process. As in any revision, there were many changes made in the structure and organization of the methodology document that resulted in errors. However, in a few instances, these were overlooked during the final editing process. • As a result of the revision process, several important sections of the methodology were moved and/or changed entirely. This resulted in some broken links between sections. All embedded links have now been examined, and any errors corrected. These links are integral to the use of VM0009. • In the latest update of the VCS Guidance for Methodology Development, the rules governing the usage of the terms "shall", "may", "should" and "must" were modified. This forced Wildlife Works to review and in some cases revise usage of the term "shall" to "must." This unfortunately resulted in some errors. The misspelling of the word "must" in Section 6.8.1.3 has been fixed, along with the other misspelling in other sections.	DNV GL has assessed the updated methodology and confirmed that editorial changes were made **CAR Closed**
CAR 5	**Requirement**: VCS AFOLU Requirements section 4.1.3. Requires the methodology to have all set of requirements pertaining to each and every project category to be covered. **Non-Compliance**: Methodology requirements incomplete ACoGS conditions missing **Objective evidence:** • **Section 6.1.1:** Primary Agents and Drivers is only focused on Forest no conditions for the primary	Wildlife Works appreciates this Validators careful review of the methodology. Please see below for specific responses to each bullet. • Wildlife Works rejects this CAR. As the Validator states, section 6.1.1 is focused only on forest baseline types. This is necessary because Section 6.1.1 and 6.1.2 address forest baseline types with a *cascade of degradation*. It is our contention that the cascade of degradation cannot occur in a grassland project accounting area. We base this reasoning on the same response that has been provided for CL2. In the	DNV GL has verified the actions of the Wildlife Works and found: DNV GL rejects the conclusion of the Wildlife Works although it recognizes that with the modifications made in 6.1. the principle requirement is to identify an agent responsible for the conversion. It is not clearly outlined that consequent Sections 6.1.1 and 6.1.2 are only related to forest conversions. In 6.1.1 it states that "is important for Type F-P1.a and F-P1.b" however this

CAR ID	Corrective action request	Response by Project Participants	DNV GL's assessment of response by Project Participants
	drivers of ACoGS activities • **Section 8.3.2.1:** *"…the last remaining forest in the region..."* **/PDR 108**: *"…is entirely forested as of…"* / **MR54**: *"… leakage is entirely forested as of the project…"* Requirement do not to take into account similar conditions for native grassland • **Section 8.3.3.4:** "*…To calculate the "area of avoided deforestation"…*" methodology does not consider avoided degradation of grassland	absence of a cascade of degradation, a project developer uses Section 6.1 to identify the agent(s) of conversion, and these agents would not interact as they do in the cascade of degradation process. • Accepted and revisions made: We agree that PDR 108 was not and should not be limited to forests. PDR.108 has been updated to state *"… leakage area is entirely in a non-converted state (e.g. forested or native grassland) as of the project…"* MR.54 was also unintentionally limited to forested baseline types. This MR has been updated to state *"… leakage area is entirely in a non-converted state (e.g. forested or native grassland) as of the project…"* It is important that this PDR and MR actually encompass *all* baseline types eligible in this methodology. • Wildlife Works believes that this CAR is no longer relevant. As explained above, the methodology does not consider degradation of grasslands. The definition of grassland conversion in VM0009 only allows for baseline scenarios for which complete conversion grassland occurs, without the possibility of the grassland remaining in a degraded state. The methodology excludes conversion of grasslands for livestock grazing or pasture, which is the primary process through which grasslands could conceivably be degraded. As stated above, we do not believe that project developers could quantify historical grassland degradation using the BEM process with sufficient accuracy and confidence. Additionally, we believe that the complexity of the carbon accounting would be too complex and highly variable based on climate and ecology. We therefore opted to conservatively exclude this baseline scenario from the methodology.	does not exclude other Baseline types. Verified changes and found them to be in line with the requirements. DNV GL Rejects the conclusion of proposed action of Wildlife Works. Although DNV GL acknowledges that the methodology has reduced its scope and as such degradation of grassland is not no longer part of the methodology. The methodology under section 8.3.3.4 states that "This method for quantifying market leakage also applies to both avoided deforestation and avoided conversion of native grassland." At the same time it states "For simplicity, the term "avoided deforestation" referenced in the tool will mean both avoided conversion of forest to non-forest and avoided conversion of native grassland to non-grassland." However it is not clear if the current intention of the methodology is that the same principle should be applied when applying "To calculate the "area of avoided deforestation" $A_{B\,\Delta\,PAA}^{[m]}$ referenced in the tool, use [F.52]" **CAR Remains Open**

CAR ID	Corrective action request	Response by Project Participants	DNV GL's assessment of response by Project Participants
		WWC Response Round 2 • Wildlife Works accepts this CAR. We agree with the validator that section 6.1.1 was unintentionally vague in regards to whether it applied to grassland baseline types. A sentence has been added to Section 6.1.1 to clarify that the requirements in this section only apply to forest baseline types P1.a and P1.b. The new sentence states: *"For grassland baseline types (G-P2, G-U1 and G-U2) it is assumed that there is no grassland degradation before conversion. Therefore, only a single agent or class of agents and drivers can result in the conversion of native grassland."* This sentence will provide the needed clarity to readers that under this methodology grassland baseline types do not involve a primary and secondary agent that results in degradation preceding the ultimate conversion of grassland. • Wildlife Works accepts this finding. We now understand the validators contention that section 8.3.3.4 did not provide sufficient clarity as to whether in the sentence *"To calculate the 'area of avoided deforestation' $A_{B\Delta PAA}^{[m]}$ referenced in the tool, use [F.52] "* a project developer should take the term "avoided deforestation" to mean generally "avoided conversion" as stated previously in the section. To address this CAR the sentence *"For use of the VCS production approach, the total area of avoided conversion of forest to non-forest and avoided conversion of native grassland to non-grassland must be calculated, which as stated above, is referred to in the tool generally as 'area of avoided deforestation.'"* has been added to the section. This new sentence directs the reader that they should continue to equate	**Assessment Round 2**: Verified changes and found them to be providing the necessary clarity and in line with the requirements. Verified changes and found them to be providing the necessary clarity and in line with the requirements. **CAR Closed**

CAR ID	Corrective action request	Response by Project Participants	DNV GL's assessment of response by Project Participants
		the term "avoided deforestation" as used in the VCS tool with the term "avoided conversion" as used in the methodology.	

CAR ID	Corrective action request	Response by Project Participants	DNV GL's assessment of response by Project Participants
CAR 6	**Requirement**: VCS Methodology template Chapter 6 **Non-Compliance**: Inconsistency between description of the requirement and methodology requirement table **Objective evidence:** • **Section 6.4** "*with respect to vegetation, soil and climatic conditions*" requirements does not correspond with PDR36 requirements	Accepted and revisions made: This inconsistency was due to an oversight during the methodology revision process. As in any revision, there were many changes made in the structure and organization of the methodology document that resulted in errors. PDR.36 has been updated to be consistent with the text of section 6.4. The PDR now states: "Maps or other evidence that the proxy area's landscape configuration is similar to its respective project accounting area: a. Vegetation b. Soil, if available c. Climatic conditions (e.g. mean temperature, rainfall, etc.)" **WWC Response Round 2** Wildlife Works accepts this finding. The requirements for the delineation of proxy areas as listed in PDR.36 have been revised so as to conform to those in the reference area selection criteria as listed in section 6.8.1.1. The text of section 6.4 has been updated so that it is consistent with the requirements listed in PDR.36. The requirements for the selection of a proxy area are not focused on the site characteristics and landscape configuration. The PDR now states: "*Maps or other evidence that the proxy area's site characteristics and landscape configuration is similar to its respective project accounting area, including:* *a. Vegetation;* *b. Climatic conditions (e.g. mean temperature, rainfall, etc.);* *c. Topographic constraints to conversion (slope, aspect, elevation);* *d. Land use and/or land cover;*	DNV GL assessed the proposed changes by Wildlife Works, it believes however that the proposed changes limit the scope of comparison between the project accounting area and the proxy area to the extent that recent agreement with the VCSA is no longer adhered to, as it takes away elements such as topography, resources like waterways or roads etc. **CAR Remains Open** **Assessment Round 2**: Verified changes and found them to be providing the necessary clarity and in line with the requirements. **CAR Closed**

CAR ID	Corrective action request	Response by Project Participants	DNV GL's assessment of response by Project Participants
		e. Soil map (if available) or other soil information; *f. Applicable infrastructure (e.g. water ways, roads, railroad, airports, provision of electricity, and other access points); and* *g. Ownership/tenure boundaries that influence conversion (e.g. government holdings, private holdings and reserves)."* The text of section 6.4 now states: "*For each project accounting area, the proxy area must be similar to the corresponding project accounting area with respect to vegetation, landscape configuration and climatic conditions."* Additionally, the validator's finding resulted in us adding an additional sentence to clarify that the proxy area must be physically accessible to the project proponent. This sentence is: "*The proxy area must also be physically accessible to the project proponent, as ongoing ground-based measurement will be necessary*." We would also like to note that the VCSA agreement regarding the reference area selection criteria does not pertain to the proxy area.	

CAR ID	Corrective action request	Response by Project Participants	DNV GL's assessment of response by Project Participants
CAR 7	**Requirement**: VCS Methodology Template Chapter 3 Definitions requires a list of definitions used in the report. **Non-Compliance**: Unclear usage of the terminology "*project area*" and "*project accounting area*" **Objective evidence:** • **Section 6.8.1.1:** "*…to those of the project area...*" Not clear which definition is to be used by the project i.e. "*project area*" or "*project accounting area*" • **Section 6.8.1.1:** Point 4 *"…relative to the project area…*" versus in 4a *"... in the project accounting area and reference area…*" • **PDR 40 & PDR 42:** "*project area*" instead of "*project accounting area*"	Accepted and revisions made: We appreciate the Validator's close reading and review of the methodology, and discovery of errors such as these listed below: • We agree with the Validator that in this sentence in Section 6.8.1.1, the methodology should read "*…to those of the project accounting area...*" The methodology has been updated to reflect this change. • We agree with the Validator that in this sentence in Section 6.8.1.1, the methodology should read *"…relative to the project accounting area…*" The methodology has been updated to reflect this change. • We agree with the Validator that PDR 42 should state "project accounting area," and the methodology has been updated to reflect this. However, we reject that PDR.40 should read "project accounting area". The term "project area" is used to denote the set of all "project accounting areas". That said, we contend that PDR.40 should in fact read "project area," as it remains a requirement that no portion of the *entire* project area is in the reference area. If a project contained multiple project accounting areas, each with a respective reference area, none of the project accounting areas would be allowed to overlap with any of the reference areas.	DNV GL has verified the modification made by Wildlife Works and found them to be consistent. DNV GL also agrees with Wildlife Works that in relation to PDR40 it is appropriate to refer to the project area. **CAR Closed**

CAR ID	Corrective action request	Response by Project Participants	DNV GL's assessment of response by Project Participants
CAR 8	**Requirement**: VCS AFOLU Requirement 4.1.3 requires the methodology to have all set of requirements pertaining to each and every project category to be covered. **Non-Compliance**: Inconsistency within the methodology in relation to the manner in which parameters and formulae are to be used by project proponent **Objective evidence:** • **Section 8.1.2:** states that [F.26] is for all types other than G-P2 and F-U3 whilst Appendix F equation F-26 states that it is applicable for G-P2 • **Section 8.1.2:** states that [F.29] is used to calculate G-P2 and F-U3 whilst Appendix F equation F-29 states that it is applicable for F-P1.b, F-U3 • **Section 8.1.6.4:** header states that relates to calculations from AGMT for F-U2, F-U3 and G-U2 however language in the section and equation [F.40] cover U2, U3	Accepted and revisions made: Due to transcription errors, several of the in-text equation references were incorrect. Wildlife Works has reviewed all of the equation references, both in the text of the methodology document and appendix F, to rectify any errors. Additionally, the baseline references in appendix F were revised. They are now presented in a consistent form with those references in the text itself.	DNV GL has verified the modifications made by Wildlife Works and found the updates to be consistent. **CAR Closed**

CAR ID	Corrective action request	Response by Project Participants	DNV GL's assessment of response by Project Participants
CAR 9	**Requirement**: VCS AFOLU Requirements 4.5.1 require the methodology to quantify the GHG emissions or removals. **Non-Compliance**: Methodology incomplete for grassland project emissions **Objective evidence:** • **Section 8.2, 8.2.1, 8.2.2, MR** requirements do not include any reference to emission related to grassland caused by' for example, grassland fires. • **Section 8.4.7:** requirements do not include any reference to emission related to grassland caused by, for example, grassland fires.	Accepted and revisions made: Wildlife Works appreciate the Validator's close reading and review of the methodology, and discovery of errors such as those listed in this CAR. We did not intend to exclude project emissions from grassland baselines. However, due to an oversight during the revision process they were not clearly seen as being required within the project accounting process. • Wildlife Works accepts this CAR relating to Section 8.2 and 8.2.1. Both sections have been updated to now explicitly include grassland fires and other "natural disturbances." The term "other natural disturbances" is intended to broadly encompass both forest project accounting areas and grassland accounting areas. • Wildlife Works rejects the CAR for section 8.2.2 and MR.34. This section is specifically focused on the accounting of emissions from the intentional burning of biomass within the project area. It is not limited in any way to forest baseline types, but must by definition be limited to woody biomass. Woody biomass may be found in many grassland ecosystems, though at a level below that of a forest, and if it is collected and burned for a project activity, this section must be used for accounting purposes. • Accepted and revisions made: Section 8.4 of the methodology requires project developers to provide Ex-Ante estimates of project emissions resulting from project activities. This section has been updated to explicitly include "controlled grassland burning." This addition clarifies that this section is to be used for accounting of intentional project emissions, and that we always expect project proponents to estimate emissions from such activities, even though they may be proven *de minimis*.	DNV GL Assessed the modification of made and verified that: That the corrections made are in line with the requirements Acknowledge Wildlife Works reasoning that grassland can also hold woody biomass however when grassland is being burn not only woody biomass is lost also emissions from non-woody biomass. No statement is being made about how these emissions are being accounted with the methodology. That the corrections made are in line with the requirements. **CAR Remains Open**

CAR ID	Corrective action request	Response by Project Participants	DNV GL's assessment of response by Project Participants
		WWC Response Round 2 Wildlife Works accepts this CAR. Section 8.2.2 provides guidance to project developers who have project activities that involve the burning of biomass. Wildlife Works believes that the vast majority of these project activities will involve the burning of woody biomass, such as the production of sustainable charcoal. However, we agree with the validator that there are potential instances where non-woody biomass may also be burned as part of a project activity. Therefore we have revised section 8.2.2 to include biomass from both woody and non-woody material. Additionally, equation [F.42] has been updated to include biomass from non-woody material in addition to woody biomass.	**Assessment Round 2**: Verified changes and found them to be providing the necessary clarity and in line with the requirements. **CAR Closed**

Clarification requests

CL ID	Corrective action request	Response by Project Participants	DNV GL's assessment of response by Project Participants

CL 1	**Requirements**: **Potential non-compliance:** 1. Lack of clarity in the use of terminology and intend of the methodology **Clarification**: 1. Section 2.1.1 *"... the baseline scenario for each accounting unit..."* should "*account unit*" not be "*project accounting unit*". Please clarify. 2. Proxy area: *"...are estimated for each baseline type..."* Not clear if the intent of the definition is to have for each project accounting area should have its own proxy area or that proxy areas my overlap to cover multiple project accounting area. 3. Reference area selection requirements: "*…observable or verifiable evidence…*" observable is a form of verification.	Wildlife Works accepts this CL. Please see below for our detailed responses to each point listed in the CL. • The term "accounting unit" was inadvertently used in several places in the methodology. This was an error and has been corrected. In all cases, "accounting unit" should have read "project accounting area." • We believe that the methodology is clear in stating that a proxy area must be identified for each project accounting area. However, as stated in section 6.4, proxy areas for different project accounting areas may overlap partially or entirely. The sentence "*Therefore, an individual proxy area must be identified for each project accounting area, but two or more proxy areas may have exactly the same boundaries*" has been added to section 6.4 to help clarify this issue. • Wildlife Works agrees with the Validator's assertion that this definition is redundant. We have removed the word "observable" from the reference area selection requirement. It now only requires the evidence to be "verifiable."	DNV GL Assessed the modification of made and verified that: Methodology is consistently using the term project accounting area Agree with the modification made in 6.4 that clarifies the relationship between proxy area and project accounting area. Verified the modification of Wildlife Works and found it to be in line with requirements **CL Closed**
CL 2	**Requirement:** VCS Methodology Template Chapter 3 Definitions requires a list of definitions used in the report. **Potential non-compliance:** Lack of clarity in the use of terminology **Clarification:** • **cascade degradation** is currently only used within the deforestation part of the methodology, proponent is asked to explain why cascaded effect is not being considered for grassland	The Wildlife Works considers that only primary agents (one set of agents) are responsible for the degradation of grassland ecosystems and that secondary agents are therefore not applicable.	DNV GL accepts that the grasslands will most likely not have a secondary agent that will be end responsible for the degradation however, could see that where project both applies REDD as well as AGOS some grassland project accounting areas might not be accessible to the agents till the primary agent of for the forest project accounting area has made the grassland project accounting area accessible. **New CL raised (CL3)**

CL 3	**Requirement:** Follow up of CL2 **Potential non-compliance:** Lack of clarity in the use of terminology **Clarification**: • Wildlife Works is to explain how the methodology is to address cross influences between the different project accounting areas.	There are several steps/models in the methodology that ensure any influences or interactions between different project accounting areas are captured in the baseline emissions model (BEM). The first is the use of covariates, such as $\boldsymbol{x_o}$ and $\boldsymbol{\theta}$ in the various emission models. These covariates are being used if there are variables that co-vary (i.e. inform) the conversion rate of a PAA. In the situation where the conversion of a PAA is influenced by another PAA, a covariate(s) may be used to describe the interaction. A covariate may include any variable related to the PAA that influences the conversion of the second PAA, such as the development of roads, population density or forest harvest levels. The methodology also includes the $\boldsymbol{q}$ parameter, which represents the lag period between the onset of degradation and beginning of conversion. This is determined from expert knowledge of the reference area attributes or, in extreme cases, a PRA. The $\boldsymbol{q}$ parameter may be used by a project developer if there is a lag in conversion within a PAA due to the interaction or influence or a neighbouring PAA. For example, if agents of conversion have restricted access to a grassland PAA until a logging road is built in a neighbouring forested PAA, the $\boldsymbol{q}$ parameter could be used to explain the delay in conversion of the grassland. Wildlife Works believes that the methodology currently provides sufficient methods to accurately account for any interactions between project accounting areas, and that further description of these phenomena would introduce unneeded complexity into the methodology.	DNV GL has assessed the clarification and intent of the methodology and found it to be in line with the requirements. **CL Closed**

CL 4	**Requirement:** VCS Methodology Template Chapter 3 Definitions requires a list of definitions used in the report. **Potential non-compliance:** wrong interpretation of methodology **Clarification**: Methodology uses the term "*agriculture*" without defining it in the definitions and a such not clear if methodology means crop production or both crop & animal (cattle, milk, wool etc) production	Wildlife Works agrees with this CL. Due to an oversight, the term "agriculture" was not defined in the methodology. We have now included the term agriculture in section 3, Definitions of the methodology. Agriculture is defined as "The cultivation of soil and production of crops on either a subsistence or commodity basis. Crops may include those for food, fuel or fiber uses, or other purposes. Agriculture includes animal production, such as livestock grazing, pasture or other livestock production systems." **WWC Response Round 2** Wildlife Works confirms that deletion of the sentence "*Agriculture includes animal production, such as livestock grazing, pasture or other livestock production systems*." from the definition of agriculture was intentional. This sentence was included in an earlier draft of this definition, but was excluded in the final version to ensure consistency in the definition and application of the term agriculture in the methodology.	DNV GL verified action however found that in the methodology the sentence "Agriculture includes animal production, such as livestock grazing, pasture or other livestock production systems." was removed in line with the limiting of the scope of the methodology. DNV GL request that Wildlife Works confirm that deletion of sentence was intended. **CL remains open** **Assessment Round 2**: Confirms deletion. **CAR Closed**
CL 5	**Requirement:** VCS Validation Verification Manual section 5.2, v3.1 **Potential non-compliance:** Incorrect usage of « may » , « should » **Clarification**: • Section 6.1 "… *The baseline scenario may include one or more agents of conversion…*" please clarify if this should be a requirement or an optional point current text would not require any baseline scenario. • Section 6.5.3 "… *This residual biomass should be determined using permanent plot measurements in the proxy…*" is this supposed to be optional or would this be a	Wildlife Works accepts this CL. We strive to ensure that the methodology is written clearly and consistently. However, we agree with the validator that due to an oversight during the methodology revision process, in the instances listed in the CL, the use of these terms is unclear: • We agree with the Validator that this sentence is not clear enough in its meaning. This sentence has now been revised to state "*The baseline scenario must include at least one agent of conversion, but may include more*." We believe that this sentence now clearly conveys that a project developer must identify at least one agent of conversion in the baseline scenario. However, there may be multiple agents identified for a single baseline scenario. • The methodology should clearly state that permanent plots are required in the proxy area for any carbon pool included in the baseline scenario. The text of section 6.5.3, 6.5.5, 6.5.6 and 6.5.7 has been revised	DNV GL has verified the modification and found it to be in line with requirements **CL Closed**

	requirement of the methodology i.e. "must" requirement • Section 6.5.7: "*...Residual soil carbon should be determined using..."* is this supposed to be optional or would this be a requirement of the methodology i.e. "*must*" requirement	to state "*residual biomass must be determined using permanent plots measurements in the proxy area*."	
CL 6	**Requirement:** **Potential non-compliance:** Potential unclear PDR requirement **Clarification**: • **PDR43**:Although the methodology has increased the requirement to justify the reference by requiring a rationale, it is not clear if it also is intended that references are to be linked to the specific project accounting areas to match this rational	Wildlife Works accepts this CL. The methodology has been revised to require an increased number of requirements in the reference area selection process. We agree with the Validator that the new PDR 43 was not written clearly enough to indicate that the rationale of the reference area's boundaries should be described relative to the respective project accounting area, for which the reference area is being used. The revised PDR reads: "*A description of the rationale for selection of reference area boundaries relative to the respective project accounting area*."	DNV GL has verified the modification and found it to be in line with the requirements **CL Closed**

CL 7	**Requirement:** VCS Methodology Template Definitions **Potential non-compliance:** Unclear usage of terminology "deforestation" **Clarification**: • **Section 6.8.5 :** *"… estimated proportion of deforestation in the reference area…" / "… and the prevalence of deforestation during the..*" please clarify if this is only for deforestation or that this should be conversion (i.e. forest and grassland)	Wildlife Works accepts this CL. In this revision, the methodology has been expanded from a REDD+ methodology to include ACoGS baseline types. With these changes, the methodology is now focused on the avoided conversion of ecosystems, whereas before it was limited to avoided deforestation. We agree with the validator that due to an oversight during the methodology revision process, in some places "deforestation" was inadvertently not updated to read "conversion." We have scoured and revised the methodology where applicable to ensure that "deforestation" and "conversion" are being used correctly and consistently.	DNV GL has verified the modification and found it to be in line with the requirements **CL Closed** **Observation:** The CDB definition of ecosystem is "*a dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit.*" Although through the applicability criteria ecosystem is being defined Wildlife Works may want to consider if it wants to continue "ecosystem" or use may be the more correct "conversion of native grassland and forests"
CL 8	**Requirement:** VCS methodology template Chapter 8 **Potential non-compliance:** Methodology does not cover the Applicability criteria **Clarification**: • **Section 8.4.2:** "*…Rather if credits were generated from avoided deforestation … that generated these credit*." Although the impact is greater and more likely to occur within forested areas please clarify why this is not applicable to grassland project accounting areas	Wildlife Works accepts this CL. We did not intend for section 8.4.2 to apply solely to "forest project accounting areas". The Validator is correct in pointing out that while a much smaller risk, reversals are a possibility in grassland accounting areas and these must be accounted for in VM0009. In this revision, the methodology has been expanded from a REDD+ methodology to include ACoGS baseline types. We have scoured and revised the methodology where applicable to ensure that "deforestation" and "conversion" are being used correctly and consistently.	DNV GL has verified the modification and found it to be in line with the requirements **CL Closed**

CL9	**Requirement:** **Potential non-compliance:** Potential unclear PDR requirement **Clarification**: • **Section 6.6:** "*The logistic nature of ecosystem conversion is justified using established resource economic theory.*" Please clarify what is intended with the criteria "established resource economic theory"	Wildlife Works feels this CL is not applicable. We fail to understand how this CL relates the current methodology revision as this is a fundamental component of the methodology and has not been altered since the methodology was first written. Additionally, we feel that this CL is unclear, our interpretation is that the validator is requesting justification of the statement "*The logistic nature of ecosystem conversion is justified using established resource economic theory.*" This justification is contained in Appendix A, as stated in the previous sentence to that quoted above: *"Theoretical background on the logistic nature of degradation, deforestation and conversion are presented in Appendix A."* We feel that Appendix A provides a highly robust explanation of why a logistic signal accurately depicts the nature of conversion in the presence of limited natural resources. VM0009 argues for and fully justifies in Appendix A the use of a logistic signal for the baseline model. Therefore, the project proponent is not required to provide further justification in the form of PDR(s) or additional criteria.	DNV GL has verified the response of Wildlife Works and with the reference to the Appendix A and closer assessment of Appendix A and concludes that no further clarification is required. **CL Closed**

APPENDICES

PROJECT TEAM

Edwin Aalders - Mr Aalders has nearly 20 years of experience as an assessor in Environmental Auditing and accreditation and started his career in 1992 were he quickly became involved in the development of new environmental certification &control services, specialized in forestry. In 2004 he became the Director of theInternational Emission Trading Association (IETA) which he held till 2009. In additionto his role as Director in IETA he held between November 2007 and October 2008 therole of Acting CEO for the Voluntary Carbon Standard Association (VCSa). Mr. Aalderslead SGS Forestry Department in the Netherlands and before that held different positionsin the certification body in their forestry department. Among other duties, he wasresponsible for the development of the QUALIFOR programme (Forest Management &Chain of Custody) Mr Aalders is an elected member of roster of experts for theMethodology Expert of the CDM & JI and on the AFOLU Steering Committee of the Verified Carbon Standard Association (VCSa).

Kyle Silon – Mr. Silon holds an M.S. in Energy and Environmental Economics. He has eight years of experience in climate change mitigation strategies and carbon reduction projects. Mr. Silon's work has focused on devising corporate level marginal abatement cost curves and developing mitigation strategies for the financial, oil & gas, mining, and electric power sectors. In land based sequestration, Mr. Silon is accredited by CAR under their forest protocols, and has developed carbon-land valuation models for clients seeking forestry investments. Mr. Silon provides assessments on GHG policy, allowance trading, carbon footprints, and project feasibility of various offset sectors including, Reduced Emissions from Deforestation and Forest Degradation (REDD), Coal Mine Methane, and Landfill gas. His experience has focused particularly on California, where he has worked with several major California utilities to develop GHG strategies surrounding the developing carbon markets under AB32 and the Low Carbon Fuel Standard. Mr. Silon has also managed the development of a carbon market model for California that analyzes the economic implications of key market variables and policy decisions in the design of California's emissions trading and carbon offset policies.

Marcelo Schmid – Mr. Schmid is a forest engineer and lawyer, Msc, in forest economic and has more than 14 years of experience as environmental consultant, coordinating projects related to the carbon market, forest certification and sustainable development projects, for companies and governmental bodies along several Brazilian States and for international organizations. Actually, he is director at the consulting company Index Florestal, working in the area of forest products market, environmental and forest consulting (specially sustainable governance, carbon forest projects and forest certification projects). Marcelo was the coordinator of the group responsible for the creation and revision of the Brazilian standard on native forest management. He is member of the UNFCCC roll of experts in CDM AR new methodologies, member of the Verified Carbon Standard – VCS group of forest methodologies development (REDD and IFM) and professor at different graduation and post graduation institutions in Brazil. Marcelo is also forest audit for the INMETRO (National Institute for Metrology).

Misheck Chomba Kapambwe - Dr Kapambwe holds a PhD in Carbon Accounting (forest products) and has done a Masters Degree in ood Science, Graduate Diploma in Forest Industries, Diploma in Forestry and Diploma in Sawmilling Technology and has done short term courses in Carbon Accounting and Management. He has twenty years of experience in the forestry and forest products industry. His experience also covers the fields of AFOLU project and methodology validation, forest products processing, environmental management and resource conservation in developing countries (including Africa) and Australia. His qualification, industrial eperience and experience in forestry and forest industry demonstrate his sufficient sectoral competence in forestry.