

Gold Standard Design Certification Report

for

Real case VPA

**“GS11707 VPA-02 Reforestation Project in
Colombia 01” (GS12186)**

Under PoA

**“BaumInvest Forest Landscape Restoration
Programme (GS11707)”**

Methodology: Gold Standard Afforestation/Reforestation (A/R) GHG

Emissions Reduction & Sequestration Methodology (Version 2.0)

Report No: CCIPL1761/GS/VAL/BFLRP/20230207

Revision number: 05

Report Date: 21-08-2023

I. PROJECT DATA

Project title:	GS 11707 VPA-02 Reforestation Project in Colombia 01		
Project Areas:	Veraneo, Department of Vichada, Orinoquia region, Municipality of Cumaribo (Colombia)		
Host Country	Colombia		
Registration No. / Date:	GS ID: GS12186	Scale:	Large
Methodology:	Gold Standard Afforestation/Reforestation (A/R) GHG Emissions Reduction & Sequestration Methodology (Version 2.0)	Sectoral Scope/Technical Area:	14/14.1
Initial VPA-DD:	Version 1.0; Dated: 25/04/2023		
Final VPA-DD:	Version 1.2; Dated: 18/07/2023		

Party	Project participants	Party is considered a project participant (Y/N)	Contract party (Y/N)
Colombia (Host)	BaumInvest Colombia SAS, BaumInvest AG (CME)	Y	Y

II. DESIGN CERTIFICATION TEAM

Design Certification Team			Role									
Full name	Affiliation	Appointed for Sectoral Scopes (Technical Areas)	Team leader	Acting/trainee Team Leader	Local Expert	Team Member (Auditor)	Technical Expert	Observer	Trainee Auditor	Technical Reviewer	Expert to TR	Trainee TR
Isha Kapoor	India	14.1	X				X					
Vikash Kumar Singh	India	1.1, 1.2, 3.1, 4.1, 7.1, 13.1, 13.2, 14.1, 15			X (language expert and extensive work experience in the region.)	X						

Lalit Mohan Saklani	India	14.1								X		
Amit Anand	India	1.1, 1.2, 3.1, 8.1, 13.1, 14.1, 15									X	
Dr Bryan Conrad Foster	USA	14.1										X

Audit Team Experience:

The team composition is linked to the methodology and local experience in the host country.

Isha Kapoor: She is a forestry graduate and has knowledge & skills for the land use & forestry sector. She is a qualified lead assessor and technical expert for TA 14.1 under CDM SS categorization. She has more than 3 years of work experience in GHG mechanism including development of standards and methodology for an Indian GHG program. Currently, she is working on a variety of land use & forestry projects under different GHG programs including GS, CDM and VCS. She has relevant ecological and biodiversity expertise for assessing Mangrove ARR projects and relevant agriculture, forestry and/or other land use experience in the region.

Vikash Kumar Singh: Qualified lead assessor and internal technical reviewer for design certifications and verifications GHG mitigation projects under CDM, VCS and Gold Standard (GS) and actively been involved in the design certification and verification and internal technical review of more than 300 GHG mitigation projects. He is qualified as technical expert for TA 1.1, 1.2, 3.1,4.1,7.1, 13.1, 13.2, 14.1 and 15 under CDM SS categorization. He has undergone extensive training in the design certification and verification of carbon offset projects including the accreditation requirements for the VVBs. Currently, he is employed with Carbon Check in the capacity of Executive Director and Compliance Officer. Vikash has e work experience on working on land use & forestry projects under GS, CDM and VCS projects globally and worked extensively in central and south American countries.

Lalit Mohan Saklani: He has done his post-graduation in forestry and has been working under different GHG programs including GS, VCS and ISO under sectoral scope 14.1. He has relevant knowledge & skills for the land use & forestry sector.


Amit Anand: He is the internal technical reviewer at CCIPL. He has completed his Bachelor of Science and Master of Science degrees in Environmental Management and has been involved in Clean Development Mechanism (CDM) for the last 17 years. He is an expert for Agriculture, Forestry & Other Land Use (AFOLU) in CCIPL and has shared his experience on international platforms such as International Workshop on Capacity Building Project for MRV of GHG Emission Reductions in Africa, Latin America, Central Asia, and Eastern Europe organized by Ministry of Environment, Japan – 13 to 14 February 2012. He also serves as Executive Director and Chief Executive Officer at CCIPL.

Dr Bryan Conrad Foster: Dr. Bryan is the doctorate holder in forestry. He is expertise in forest carbon design for developers of reforestation projects in the USA and improved forest management projects for developers in Canada and in Sweden. He also serves as Director at Foster Forestry and Environmental consulting, LLC, South Burlington, VT.

III. DESIGN CERTIFICATION REPORT

Status	Verification Phases
<input checked="" type="checkbox"/>	Document Review
<input checked="" type="checkbox"/>	On Site Assessment
<input checked="" type="checkbox"/>	Follow up interviews
<input checked="" type="checkbox"/>	Corrective Actions / Clarifications Requested
<input checked="" type="checkbox"/>	Resolution of outstanding issues
<input checked="" type="checkbox"/>	Full Approval and Submission for registration
<input type="checkbox"/>	Rejected

Status	Distribution Conditions
<input checked="" type="checkbox"/>	No distribution without permission from the Client or responsible organizational unit
<input type="checkbox"/>	Limited Distribution
<input type="checkbox"/>	Unrestricted distribution

Final Approval	
Date	22/08/2023
Approved by	Amit Anand
Designation	CEO
Signature	

ABBREVIATIONS

AGB	Above Ground Biomass
ARR	Afforestation, Reforestation and Revegetation
BEF	Biomass Expansion Factor
BGB	Below Ground Biomass
CAR	Corrective Action Request
CC IPL	Carbon Check (India) Private Ltd.
CO_{2e}	Carbon Dioxide Equivalent
CL	Clarification Request
CME	Coordinating Managing Entity
DPCR	Draft Performance Certification Report
GIS	Geographical Information System
KML	Keyhole Markup Language ¹
LULC	Land Use Land Cover
LULUCF	Land use, Land-use Change, and Forestry
DR	Document review
DVR	Draft Design certification Report
EI	External Individual
FA	Final Approval

¹ an XML notation for expressing geographic annotation and visualization within two-dimensional maps and three-dimensional Earth browsers.

FAR	Forward Action Request
FVR	Final Design certification Report
GHG	Greenhouse Gas(es)
IPCC	Intergovernmental Panel on Climate Change
IR	Internal Resource
KPI	Key Project Information
MP	Monitoring Period
MR	Monitoring Report
MUs	Modelling Units
QC/QA	Quality control /Quality assurance
SOC	Soil Organic Carbon
TA	Technical Area
TR	Technical Review
VVB	Design certification & Verification Body

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1. Introduction

The CME, BaumInvest AG has appointed Carbon Check (India) Private Ltd. (CCIPL), a GS VVB to perform an independent design certification of the GS real case VPA^{/01/} titled “GS 11707 VPA-02 Reforestation Project in Colombia 01” (hereafter referred to as “VPA”) under registered PoA “BaumInvest Forest Landscape Restoration Programme” (GS11707).

This report summarizes the findings of the design certification of the VPA, performed on the basis of Gold Standard Afforestation/Reforestation (A/R) GHG Emissions Reduction & Sequestration Methodology (Version 2.0)^{/B01/}, GS PoA Requirements and Procedures^{/B01/} and subsequent decisions by the Gold Standard Secretariat, as well as criteria given to provide for consistent project operations, monitoring and reporting and compliance with host country criteria and Gold Standard specific criteria.

This report contains the findings and resolutions of the design certification and a design certification opinion on the real case VPA.

1.1 Objective

The purpose of a design certification is to have a thorough and independent assessment of the proposed VPA against the requirement of PoA DD^{/01/}, PoA Requirements and Procedures v2.0^{/B01/} and GS4GG Land Use & Forests Activity Requirements Version 1.2.1^{/B02/} in particular, the project's baseline, additionality, and compliance with relevant Gold Standard requirements and host country requirements. Gold Standard specific conditions are validated to confirm that the real case VPA design (as documented) is complete, reasonable and meets the stated requirements and identified criteria. Design certification is seen as necessary to provide assurance to stakeholders about the quality of the project and its ability to generate proposed amount of Verified Emission Reductions (VERs), during the crediting period.

1.2 Scope and Criteria

The scope is defined as an independent and objective review of the VPA^{/02/}. The VPA-DD^{/02/} is reviewed against the requirement of PoA DD^{/01/}, GS PoA Requirements and Procedures v2.0^{/B01/} and GS4GG Land Use & Forests Activity Requirements Version 1.2.1^{/B02/} and applicable decisions by the GS secretariat. The design certification team has employed a risk-based approach, focusing on the assessment of:

- ✓ Physical infrastructure, activities, technologies and processes of the VPA
- ✓ VPA's physical boundaries^{/02/15/16/},
- ✓ GHG sources, sinks and/or reservoirs^{/03/}.
- ✓ Growth and yield models/ CO₂ Fixation calculation^{/03/09/},
- ✓ VPA Stakeholder Consultation^{/10/},
- ✓ Compliance with PoA requirements including eligibility for inclusion of VPA^{/02/}
- ✓ Safeguarding Principles^{/02/08/},
- ✓ LUF risk and capacities^{/05/}
- ✓ Demonstration of baseline and additionality^{/11/} and
- ✓ Monitoring plan^{/02/18/}

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

While carrying out the design certification, CCIPL determines if the VPA complies with the requirement

of PoA^{01/}, GS4GG requirements^{B01/}, specifically the applicability conditions of the selected methodology and also assesses the claims and assumptions made in the VPA-DD^{02/}, other related templates and documents without limitation on the information provided by the CME.

On-site inspection and stakeholder's interviews have also been performed as part of the design certification process.

1.3 Level of Assurance

The VVB conducted the assessment in order to reach a reasonable level of assurance of conformance against the defined audit criteria and materiality thresholds within the audit scope. Based on the assessment by VVB, 06 (six) CARs, 06 (six) CLs and (00) FAR have been raised. Furthermore, 03 (three) CLs, 04 (four) OBS and 01 (one) FAR (which has been included by the VVB as CAR) has been raised during the SustainCERT preliminary review. All the findings has been satisfactorily closed.

Please refer to Appendix 1.

2. Methodology

The design certification consists of the following four phases:

1. Completeness check of the VPA-DD^{02/} and other GS4GG A/R templates and requirements^{B01/}.
2. Review of project documentation (VPA-DD^{02/}, SOPs, applied methodology^{B01/}, applicable tools in particular attention to the frequency of measurements, QA/QC procedures and other relevant documents and regulations).
3. On-site inspection (including follow-up interviews with project stakeholders, when deemed necessary).

The On-site inspection and interviews assessment include the following:

- An assessment of the VPA design in line with the PoA DD^{01/} & baseline and monitoring methodology^{B01/}
 - An assessment of baseline scenario & additionality.
 - Review of VPA's eligibility of the PoA^{01/B01/}, GS LUF requirements^{B01/}.
 - Review of VPA's compliance with DNH & SDG claims
 - Review of permanence of GHG removal^{03/} including risk rating and measures
 - Review of LSC (including SFR) and grievance mechanism^{02/} including interviews with the relevant stakeholders
 - Interview with relevant personnel to determine whether the operational and data collection procedures are implemented and in accordance with monitoring plan^{05/} (for both carbon & SDG) of the PoA-DD^{01/}.
 - Review of assumptions made in calculating the GHG removal estimations^{03/}.
 - Assessment of QA/QC procedure in-line with the PoA-DD^{01/} and methodology requirement.
4. Resolution of outstanding issues and the issuance of the Final Design Certification Report and Certification statement.

3. Means of Design certification

3.1 Document/ Document Review

List of all documents reviewed or referenced during the design certification is as below:

Sno.	Documents	Reference
/01/	PoA DD <ul style="list-style-type: none"> BaumInvest PoA-Design-Documents_v6.0_clean BaumInvest PoA-Design-Documents_v6.0_trackchanges BaumInvest_PoA-Design-Consultation-Report_v0.2 BaumInvest PoA-Design-Documents v6.1_clean BaumInvest PoA-Design-Documents_v6.1_track 	Version 6.1 (17/07/2023)
/02/	VPA DD	Version 01 (25/04/2023) Version 1.2 (19/08/2023)
/03/	Carbon fixation calculation sheet	Carbon calculation sheet v1.1, v1.2
/04/	Folder SOC <ul style="list-style-type: none"> 403_V1.0_0.7_LUF_AR Methodology_Soil Carbon Tool_COL_v1 SOC supporting assumptions_v1 Supporting literature 	Soil organic carbon
/05/	Folder Risks template SGD tool <ul style="list-style-type: none"> 430_V1.0_IQ_SDG-Impact-Tool_v1,v1.1 BIAG_AR_LUF_Risks&Capacities_COL_GS12186_v0.2clean BIAG_AR_LUF_Risks&Capacities_COL_GS12186_v0.2trackchanges 	LUF risks & capacities
/06/	Proof of project start date <ul style="list-style-type: none"> Acknowledgement project start date 	02 nd May 2023
/07/	Commonly accepted forest inventory & management <ul style="list-style-type: none"> Forest inventory guideline_EN_v1.3 	-
/08/	Safeguarding principle assessment <ul style="list-style-type: none"> Biodiversity monitoring Colombia.pdf Reglamento Interno de Trabajo 	Evidence for safeguarding principle assessment
/09/	Ex-ante parameters <ul style="list-style-type: none"> 06-02_IPCC_Biomass_Default_Table 06-13_Montagnini_Piotto_Mixed plantations of native trees 07-03 CATIE_2003_ArbolesCentroAmer 07-27 Silvicultura S.amara Peru 07-28 Wood S. amara glauca 07-39 Plantations as Carbon Sinks_Montagnini 1998 08-01 J copaia 08-15_Butterfield, R. 1995. Desarrollo de especies forestales en tierras bajas húmedas de Costa Rica 08-41_Age_and_Long-term_Growth_of_Trees_in_an_Old-growth 08-68_Jacaranda copaia_dhb_biomass_height 08-83_Jacaranda copaia 09-07 Fichas_tcnicas_plantaciones_Selva_Baja 09-08 Calidad_de_sitio_de_cuatro_especies forestales 09-09 Crecimiento D. odorata en dos sistemas plantacion 09-18 Vallejo - Minga, modelos genéricos de crecimiento 09-22_Anadenanthera peregrina 09-23 Anadenanthera peregrina 09-24_terminalia ivorensis 09-27_Report Flor Morado different species 09-51_Inferred longevity amazonian rainforest 09-52_A.peregrina in 40 years reforestation 09-65_FEB Report-ABG-estimation-techniques_Winrock 09-07_h.alchorneoides-wood density 	Evidence for values used for ex-ante calculations

	<ul style="list-style-type: none"> GlobalWoodDensityDatabase 	
/10/	Records of LSC <ul style="list-style-type: none"> LSC-Report_Colombia_01_v1.1clean LSC-Report_Colombia_01_v1.1trackchanges Folder_Sample of invitation media used Folder_Supporting documentation 	Evidence for local stakeholder consultation
/11/	Spatial forest/non-forest assessment <ul style="list-style-type: none"> Eligible_area_Veraneo.zip file Project_area_Veraneo.zip file Report - BaumInvest El Placer - Final 230605 Soil Map – Veraneo.zip file Forest Cover 2010 30m - Veraneo 	Spatial forest/non forest assessment evidence
/12/	Ownership of carbon credits <ul style="list-style-type: none"> T-PreReview_V1.1-Cover-Letter_GS12186_2023-05-02 Acknowledgement project partner CO2 property 2023.01.03 Contract_AC_BiAG_2023_signed 	Evidence for carbon credits ownership
/13/	Certificate CME <ul style="list-style-type: none"> Aktionärsregister-BICO_19.05.23 BaumInvest AG_Commercial_Registry_11-05-2022 HR-Auszug BICO_Camara de comercio_25.05.2023 HR-Auszug BICO_Camara de comercio_25.05.2023_ENG 	Evidence for CMEship
/14/	Land tenure <ul style="list-style-type: none"> Matricula_Grundbuchauszug El veraneo auf BICO_11.11.2022 Matricula_Grundbuchauszug El veraneo auf BICO_11.11.2022_ENG PODER Veraneo 	Evidence for land ownership
/15/	GIS shapefiles <ul style="list-style-type: none"> Buffer_camino_vivero_Veraneo.zip Buffer_incendios_Veraneo.zip Caminos_Veraneo.zip Cursos_de_agua.zip Eligible_area_Veraneo.zip Infrastructure_Veraneo.zip Project_area_Veraneo.zip 	-
/16/	Map of project area <ul style="list-style-type: none"> Map01_Project_location 	-
/17/	Declaration from PD <ul style="list-style-type: none"> PD declaration GS12186 Project not previously registered_signed 	Evidence for project is not registered previously under other GHG programs
/18/	SOP & monitoring manual <ul style="list-style-type: none"> Forest inventory guideline_EN_v1.3 Guideline for dealing with data uncertainty Organizational chart_implementation_GS12186 Competences-Agrocaucho Agrocuacho_short profile 	-
/19/	Evidence of the SDG of PoA and VPA Folder_SDG 1 and SDG 8 Folder_SDG 15	-
/20/	LUF input & grievance mechanism <ul style="list-style-type: none"> Management System Manual v0.2 SOP_Continuous Input & Grievance Mechanism v1.0 	-
/21/	No burning evidence <ul style="list-style-type: none"> No burning statement project partner 	-
/22/	Forest management Plan	-
/23/	Baseline shrub biomass assessment <ul style="list-style-type: none"> Folder_Field data biomass assessment Folder_Sample points 	-

	<ul style="list-style-type: none"> Folder_supporting doc Baseline SOP Col_v1.0.pdf EI Veraneo_baseline shrub biomass_v1.0, v1.1.xls 	
/24/	Leakage evidence <ul style="list-style-type: none"> Leakage letter_Veraneo PODER Veraneo 	-
/25/	Funding source <ul style="list-style-type: none"> Simple cost analysis.xls 	-
/26/	Docs submitted to Sustaincert <ul style="list-style-type: none"> 501_V2.0_AR_GHG_ODA-Declaration Form_v0.1_GS12186_2023-04-18 Registry-App-Terms-of-Use_as-of-April-2019_signed_2023-04-13 T-PreReview_V1.1-Cover-Letter_GS12186_2023-05-02 T-PreReview_V1.1-Terms_and_Conditions_signed_2023-04-13 T-PreReview_V2.0-Preliminary-review-request-form_GS11709_signed_2023-04-25 	-
/27/	Proof of project lifetime <ul style="list-style-type: none"> Contract between CME and other parties 	Confidential
/28/	EIA (no EIA required evidence) Decreto-1076-de-2015	-
/29/	Biodiversity monitoring Colombia conducted by third party (Senckenberg Forschungsinstitut und Naturmuseum)	28/06/2023
/B01/	GS4GG PoA Requirements & Procedures v2.0 GS4GG Principles & Requirements v1.2 GS A/R Methodology V2.0	GS4GG Requirements
/B02/	GS4GG GS LUF Activity Requirements v1.2.1	-
/B03/	STAKEHOLDER CONSULTATION AND ENGAGEMENT REQUIREMENTS v2.1	-
/B04/	CDM AR-Tool 16 v1.1.0 GS4GG LUF AR Methodology Soil carbon tool v1.0	-
/B05/	Other GHG programs: CDM: https://cdm.unfccc.int/Projects/index.html VCS: https://registry.terra.org/app/search/VCS/All%20Projects Plan Vivo: https://www.planvivo.org/pages/category/projects?Take=28	Other GHG Programme websites
/B06/	<ul style="list-style-type: none"> Holdridge, L.R. (1947). "Determination of world plant formations from simple climatic data". Science. 105 (2727): 367–8 Climatic data from: La Primavera meteorological station (historic data 1991 – 2021) and Puerto Carreño meteorological station (historic data 1991 – 2021). Source: https://es.climate-data.org/america-del-sur/colombia/vichada/puerto-carreno-3822/ Corporinoquia Resolucion 200.41-11.1130 (2011): https://corporinoquia.gov.co/images/docsPdf/200411111130.pdf https://www.oecd.org/corruption/colombia-oecdanti-briberyconvention.htm https://www.ilo.org/dyn/normlex/en/f?p=1000:11200:0::NO:11200:P11200_COUNTRY_ID:102595 https://www.suin-juriscol.gov.co/viewDocument.asp?id=1695398#:~:text=LEY%2079%20DE%201986%20%28diciembre%2030%29%20Por%20la,conservaci%C3%B3n%20del%20agua%20y%20se%20dictan%20otras%20disposiciones https://rsis.ramsar.org/es/ris-search/?f%5B0%5D=regionCountry_es_ss%3AAmerica%20Latina%20y%20el%20Caribe&f%5B1%5D=regionCountry 	-

	<ul style="list-style-type: none"> • http://reporte.humboldt.org.co/biodiversidad/2016/cap4/412/#seccion12 • ipcc_default_soil_classes_derived_from_the_harmon-wageningen_university_and_research_51469.pdf • https://hdr.undp.org/data-center/specific-country-data#/countries/COL • https://unfccc.int/sites/default/files/NDC/2022-06/NDC%20actualizada%20de%25Colombia.pdf • 2006 IPCC GfNGGI_Grassland.pdf (page 27, table 6.4) • IPCC LUCLUF, Good Practice Guidance for Land Use, Land-Use Change and Forestry, Annex 3A.1 Biomass Default Tables for Section 3.2 Forest Land • <i>Bernal et al. Carbon Balance Manage (2018)</i> 	
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3.2 On-site inspection and follow-up interviews with project stakeholders

An on-site inspection has been performed by the members of the design certification team of Carbon Check from 08/07/2023 – 11/07/2023 at CME's office and sample plantation sites in Farm area namely Veraneo of Colombia. The project representatives and stakeholders interviewed were as:

Sl. No.	Name (Organisation)	Date	Type	Topic
/i/	Antje Virkus, Chief Executive Officer (BaumInvest AG)	08/07/2023 to 11/07/2023	<input checked="" type="checkbox"/> On-site <input checked="" type="checkbox"/> Face to Face <input type="checkbox"/> Telephone <input type="checkbox"/> Email <input type="checkbox"/> Skype	<ul style="list-style-type: none"> • CME's roles and responsibilities. • Baseline scenario. • Sustainability and local stakeholders meeting. • Project implementation. • Future project plans. • Organization structure, roles and responsibilities. • Input and grievance mechanism • Risk analysis • DNHA Assessment • Changes in organization structure • Ownership of land titles • Ownership of carbon credits • Employment contracts • DNHA Assessment with respect to labour laws, minimum wage, working hours, non-discrimination, sexual harassment, anti-corruption • Plantation techniques • Training with respect to identification and protection of endangered / native species
/ii/	Barbara Magdalena San Martin (BaumInvest AG)	08/07/2023 to 11/07/2023	<input checked="" type="checkbox"/> On-site <input checked="" type="checkbox"/> Face to Face <input type="checkbox"/> Telephone <input type="checkbox"/> Email <input type="checkbox"/> Skype	
/iii/	Johann Thaler Carbon Consultant (mkaarbon safari)	08/07/2023 to 11/07/2023	<input checked="" type="checkbox"/> On-site <input checked="" type="checkbox"/> Face to Face <input type="checkbox"/> Telephone <input type="checkbox"/> Email <input type="checkbox"/> Skype	
/iv/	Simon Mader (BaumInvest AG)	08/07/2023 to 11/07/2023	<input checked="" type="checkbox"/> On-site <input checked="" type="checkbox"/> Face to Face <input type="checkbox"/> Telephone <input type="checkbox"/> Email <input type="checkbox"/> Skype	
/v/	Enrique Baresch (Legal representative of BaumInvest Colombia S.A.S)	08/07/2023 to 11/07/2023	<input checked="" type="checkbox"/> On-site <input checked="" type="checkbox"/> Face to Face <input type="checkbox"/> Telephone <input type="checkbox"/> Email <input type="checkbox"/> Skype	
/vi/	Nelson Robles (Agrocaucho Del Llano)	08/07/2023 to 11/07/2023	<input checked="" type="checkbox"/> On-site <input checked="" type="checkbox"/> Face to Face <input type="checkbox"/> Telephone <input type="checkbox"/> Email <input type="checkbox"/> Skype	
			<input checked="" type="checkbox"/> On-site <input checked="" type="checkbox"/> Face to Face <input type="checkbox"/> Telephone <input type="checkbox"/> Email	<ul style="list-style-type: none"> • Induction Training • Employment contracts • DNHA Assessment with respect to labour laws, minimum wage, working hours, non-discrimination, sexual harassment, anti-corruption • Plantation techniques • Training with respect to identification and protection of endangered / native species • Stakeholder consultation process • Grievance mechanism

			<input type="checkbox"/> Skype	<ul style="list-style-type: none"> • Baseline scenario • Land procurement process • Socio-economic impact of the project activity on local communities
/vii/	Nory Calcario (Field workers, attended LSC)	10/07/2023	<input checked="" type="checkbox"/> On-site <input checked="" type="checkbox"/> Face to Face <input type="checkbox"/> Telephone <input type="checkbox"/> Email <input type="checkbox"/> Skype	<ul style="list-style-type: none"> • Employment generation • Training • Project implementation • Continuous grievance mechanism • LSC • Feedback on the project • Project design and implementation • SOPs for plantation
/viii/	Luis Angel (Field workers, attended LSC)	10/07/2023	<input checked="" type="checkbox"/> On-site <input checked="" type="checkbox"/> Face to Face <input type="checkbox"/> Telephone <input type="checkbox"/> Email <input type="checkbox"/> Skype	<ul style="list-style-type: none"> • Employment generation • Training • Project implementation • Continuous grievance mechanism • LSC • Feedback on the project • Project design and implementation • SOPs for plantation
/ix/	Luis Seun Herrera (Field workers, attended LSC)	10/07/2023	<input checked="" type="checkbox"/> On-site <input checked="" type="checkbox"/> Face to Face <input type="checkbox"/> Telephone <input type="checkbox"/> Email <input type="checkbox"/> Skype	<ul style="list-style-type: none"> • Employment generation • Training • Project implementation • Continuous grievance mechanism • LSC • Feedback on the project • Project design and implementation • SOPs for plantation
/x/	Francisco Sono (Field workers, attended LSC)	10/07/2023	<input checked="" type="checkbox"/> On-site <input checked="" type="checkbox"/> Face to Face <input type="checkbox"/> Telephone <input type="checkbox"/> Email <input type="checkbox"/> Skype	<ul style="list-style-type: none"> • Employment generation • Training • Project implementation • Continuous grievance mechanism • LSC • Feedback on the project • Project design and implementation • SOPs for plantation
/xi/	Flor Mayur Cardenes (Field workers, attended LSC)	10/07/2023	<input checked="" type="checkbox"/> On-site <input checked="" type="checkbox"/> Face to Face <input type="checkbox"/> Telephone <input type="checkbox"/> Email <input type="checkbox"/> Skype	<ul style="list-style-type: none"> • Employment generation • Training • Project implementation • Continuous grievance mechanism • LSC • Feedback on the project • Project design and implementation • SOPs for plantation
/xii/	Paldo R.P. (Field workers)	10/07/2023	<input checked="" type="checkbox"/> On-site <input checked="" type="checkbox"/> Face to Face <input type="checkbox"/> Telephone <input type="checkbox"/> Email <input type="checkbox"/> Skype	<ul style="list-style-type: none"> • Employment generation • Training • Project implementation • Continuous grievance mechanism

				<ul style="list-style-type: none"> Environment, health and safety aspects including safety and personal protective equipment.
/xiii/	Marcos Rodriguez (Field workers)	10/07/2023	<input checked="" type="checkbox"/> On-site <input checked="" type="checkbox"/> Face to Face <input type="checkbox"/> Telephone <input type="checkbox"/> Email <input type="checkbox"/> Skype	<ul style="list-style-type: none"> Employment generation Training Project implementation Continuous grievance mechanism Environment, health and safety aspects including safety and personal protective equipment.
/xiv/	Ton Alexanelobaer (Field workers)	10/07/2023	<input checked="" type="checkbox"/> On-site <input checked="" type="checkbox"/> Face to Face <input type="checkbox"/> Telephone <input type="checkbox"/> Email <input type="checkbox"/> Skype	<ul style="list-style-type: none"> Employment generation Training Project implementation Continuous grievance mechanism Environment, health and safety aspects including safety and personal protective equipment.
/xv/	Manuel Gaiter (Field workers)	10/07/2023	<input checked="" type="checkbox"/> On-site <input checked="" type="checkbox"/> Face to Face <input type="checkbox"/> Telephone <input type="checkbox"/> Email <input type="checkbox"/> Skype	<ul style="list-style-type: none"> Employment generation Training Project implementation Continuous grievance mechanism Environment, health and safety aspects including safety and personal protective equipment.
/xvi/	Oswaldo Ponare (Field workers)	10/07/2023	<input checked="" type="checkbox"/> On-site <input checked="" type="checkbox"/> Face to Face <input type="checkbox"/> Telephone <input type="checkbox"/> Email <input type="checkbox"/> Skype	<ul style="list-style-type: none"> Employment generation Training Project implementation Continuous grievance mechanism Environment, health and safety aspects including safety and personal protective equipment.
/xvii/	Juan Isaias Cariban (Field workers)	10/07/2023	<input checked="" type="checkbox"/> On-site <input checked="" type="checkbox"/> Face to Face <input type="checkbox"/> Telephone <input type="checkbox"/> Email <input type="checkbox"/> Skype	<ul style="list-style-type: none"> Employment generation Training Project implementation Continuous grievance mechanism Environment, health and safety aspects including safety and personal protective equipment.
/xviii/	Ovelio Sanchez (Field workers)	10/07/2023	<input checked="" type="checkbox"/> On-site <input checked="" type="checkbox"/> Face to Face <input type="checkbox"/> Telephone <input type="checkbox"/> Email <input type="checkbox"/> Skype	<ul style="list-style-type: none"> Employment generation Training Project implementation Continuous grievance mechanism Environment, health and safety aspects including safety and personal protective equipment.
/xix/	Jose Luis (Field workers)	10/07/2023	<input checked="" type="checkbox"/> On-site <input checked="" type="checkbox"/> Face to Face <input type="checkbox"/> Telephone	<ul style="list-style-type: none"> Employment generation Training Project implementation

			<input type="checkbox"/> Email <input type="checkbox"/> Skype	<ul style="list-style-type: none"> • Continuous grievance mechanism • Environment, health and safety aspects including safety and personal protective equipment.
/xx/	Marcos (Field workers)	10/07/2023	<input checked="" type="checkbox"/> On-site <input checked="" type="checkbox"/> Face to Face <input type="checkbox"/> Telephone <input type="checkbox"/> Email <input type="checkbox"/> Skype	<ul style="list-style-type: none"> • Employment generation • Training • Project implementation • Continuous grievance mechanism • Environment, health and safety aspects including safety and personal protective equipment.
/xxi/	Cantos (Field workers)	10/07/2023	<input checked="" type="checkbox"/> On-site <input checked="" type="checkbox"/> Face to Face <input type="checkbox"/> Telephone <input type="checkbox"/> Email <input type="checkbox"/> Skype	<ul style="list-style-type: none"> • Employment generation • Training • Project implementation • Continuous grievance mechanism • Environment, health and safety aspects including safety and personal protective equipment.
/xxii/	Kidev HG (Field workers)	10/07/2023	<input checked="" type="checkbox"/> On-site <input checked="" type="checkbox"/> Face to Face <input type="checkbox"/> Telephone <input type="checkbox"/> Email <input type="checkbox"/> Skype	<ul style="list-style-type: none"> • Employment generation • Training • Project implementation • Continuous grievance mechanism • Environment, health and safety aspects including safety and personal protective equipment.
/xxiii/	Wilson Arditlatlos (Field workers)	10/07/2023	<input checked="" type="checkbox"/> On-site <input checked="" type="checkbox"/> Face to Face <input type="checkbox"/> Telephone <input type="checkbox"/> Email <input type="checkbox"/> Skype	<ul style="list-style-type: none"> • Employment generation • Training • Project implementation • Continuous grievance mechanism • Environment, health and safety aspects including safety and personal protective equipment.
/xxiv/	Cesar Rodriguez (Field workers)	10/07/2023	<input checked="" type="checkbox"/> On-site <input checked="" type="checkbox"/> Face to Face <input type="checkbox"/> Telephone <input type="checkbox"/> Email <input type="checkbox"/> Skype	<ul style="list-style-type: none"> • Employment generation • Training • Project implementation • Continuous grievance mechanism • Environment, health and safety aspects including safety and personal protective equipment.
/xxv/	Aldo Ardila (Field workers)	10/07/2023	<input checked="" type="checkbox"/> On-site <input checked="" type="checkbox"/> Face to Face <input type="checkbox"/> Telephone <input type="checkbox"/> Email <input type="checkbox"/> Skype	<ul style="list-style-type: none"> • Employment generation • Training • Project implementation • Continuous grievance mechanism • Environment, health and safety aspects including safety and personal protective equipment.

Sampling Approach

N/A

3.3 Resolution of outstanding issues

The objective of this phase of the design certification is to resolve any outstanding issues (issues that require further elaboration, research or expansion) which have to be clarified/ corrected prior to final VVB's conclusions on the project design, monitoring plan and management system. In order to ensure transparency, a design certification protocol is completed for the project. The protocol shows in transparent manner criteria (requirements), means of design certification and resulting statements on verification of project against identified criteria.

The design certification protocol serves the following purposes:

- It organizes in a table form, details and clarifies the requirements, a GS project is expected to meet GS4GG requirements^{B01/}.
- It ensures a transparent verification process where the VVB will document how a particular requirement has been verified.
- It ensures that the issues are accurately identified, formulated, discussed and concluded in the Design Certification report.

The design certification protocol consists of a table i.e., tables of findings and preliminary and final opinion of the VVB on every particular issue raised during the design certification process.

The findings of design certification process are summarized in tables with a standard format, as shown below:

CAR/ CL/FAR ID	xx	Section no.	Date: DD/MM/YYYY
Description of CAR/ CL/ FAR			
CME response			Date: DD/MM/YYYY
Documentation provided by the CME			
VVB assessment			Date: DD/MM/YYYY

In the above table, FAR shall reflect the forward actions initiated by the design certification team, if the VPA design, monitoring, reporting or any other aspect require attention and/or adjustment for the verification period.

Findings during the design certification can be interpreted as a non-compliance with GS criteria or a risk to the compliance.

Corrective action requests (CARs) are raised, in case:

- Non-conformities with the monitoring plan or methodology are found in monitoring and reporting and has not been sufficiently documented by the project participants, or if the evidence provided to prove conformity is insufficient.
- Modifications to the implementation, operation and monitoring of the registered VPA has not been sufficiently documented by the project participants.
- Mistakes have been made in applying assumptions, data or calculations of emission reductions which will impair the estimate of emission reductions.
- Issues identified in a FAR during design certification/previous verification(s) that are not been resolved by the project participant(s) to be verified during current verification.

Requests for clarification (CLs) are raised, if information is insufficient or not clear enough to

determine whether the applicable GS requirements have been met.

A forward action request (FAR) is raised during design certification to highlight issues related to project implementation/monitoring that require review during the subsequent verification of the VPA. FARs shall not relate to the GS requirements for issuance.

Areas of design certification of compliance	No. of CL	No. of CAR	No. of FAR
General description of VPA	01	01	--
Technical requirements <ul style="list-style-type: none"> a. Key project information b. GIS vector layer c. Uncertainty of LUF parameters d. Requirements for LUF smallholder & microscale project e. Spatial forest/non-forest assessment f. LUF input & grievance mechanism 	03	02	--
Eligibility of the VPA under approved PoA	--	--	--
Legal ownership of products generated by the VPA and legal rights to alter use of resources required to service the project	--	--	--
Location of VPA	01	--	--
Technologies and/or measures	--	--	--
Scale of the VPA	--	--	--
Funding sources of VPA	02	--	--
Application of approved gold standard Methodology (ies) reference of approved methodology (ies) <ul style="list-style-type: none"> a. Applicability of methodology (ies) b. VPA boundary 	01	01	--
Establishment and description of baseline scenario	--	--	--
Demonstration of additionality	01	01	--
Data and parameters fixed ex ante	--	01	--
Ex-ante estimation of SDG impact	03	--	--
Monitoring plan <ul style="list-style-type: none"> a. Data and parameters to be monitored b. Sampling plan c. Other elements of monitoring plan 	01	--	--
Duration and crediting period	--	01	--
Safeguarding principles and gender sensitive assessment including assessment of appendix 1 of VPA-DD	--	--	--
Stakeholder consultation <ul style="list-style-type: none"> a. Local stakeholder consultation b. Stakeholder feedback round c. Continuous input / grievance mechanism 	--	--	--
Eligibility and inclusion criteria for VPA inclusion	--	--	--
LUF Additional Information	--	--	--
LUF Risk and Capacities	--	--	--
Total	13	07	--

3.4 Internal quality control

The final design certification report has passed a technical review before being submitted to the project participant and SustainCert. A technical reviewer qualified in accordance with CCIPL's qualification

scheme for GS design certification and verification performed the technical review.

4. Design certification findings

The findings of the assessment are described in the following sections. The design certification criteria(requirements), the means of assessment are documented in detail in Appendix 1.

4.1 General description of VPA

Means of design certification	DR, OSV, I					
Findings	CL 01 and CAR 01 was raised, which has been satisfactorily closed					
Conclusion	<p>The proposed VPA-DD^{02/}, the “GS 11707 VPA-02 Reforestation Project in Colombia 01”, is the real case VPA that will be included into registered PoA^{01/}, “BaumInvest Landscape Restoration Programme”.</p> <p>Based on the review of VPA-DD^{02/}, the proposed VPA consists of ecological restoration of 1,069 ha of planting area, which was former cattle pastures; the same was confirmed during on-site inspection and interviews^{i-xxv/}. The real case VPA is located on the department of Vichada, in the Orinoquia region, in the municipality of Cumaribo (Colombia)^{16/}.</p> <p>The main objects of the real case VPA are:</p> <ul style="list-style-type: none"> • mitigate climate change through long-term carbon sequestration through planted trees and regeneration of secondary forests. • contribute to sustainable socio-economic development and poverty reduction through long-term employment in the remote, rural, and poorly developed eastern plains of Colombia. • protect biodiversity by conserving natural habitats and improving habitat connectivity. <p>The total project area of Veraneo is 1,711.7 ha, out of which 1,202 ha are eligible based on the forest/non-forest assessment. Within the eligible area, the planting area (ha) is estimated in 1,069 ha, based on the forest/non-forest assessment, and preliminary determined through technical assessments conducted during the farm site visit and after discounting infrastructure, roads and a 20 m. fire break alongside the plantable area. (This planting area is subject to changes and could end up being lower or higher).</p> <p>The remaining 509.7 ha (non-eligible farm area) is occupied by forest remnants and small rivers and water creeks.</p> <p>The assessment of the requirement of section 6.1.2 of the GS4GG Programme of Activity requirements and procedures v.2.0^{B01/} are as follows:</p> <p><u>Describe the present environmental conditions of the area planned for the Forestry and AGR VPAs, including the climate, hydrology, soils and ecosystems</u></p> <p>Based on review of VPA-DD^{02/}, VVB confirms that CME has appropriately defined the present environmental conditions of the area planned for the Forestry VPAs; the verified details are as below:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #008080; color: white;">Environment Condition</th> <th style="background-color: #008080; color: white;"></th> </tr> </thead> <tbody> <tr> <td style="background-color: #008080; color: white;">Topography</td> <td>Flat areas with only sporadic undulating slopes (with maximum</td> </tr> </tbody> </table>		Environment Condition		Topography	Flat areas with only sporadic undulating slopes (with maximum
Environment Condition						
Topography	Flat areas with only sporadic undulating slopes (with maximum					

	value of 5%)
Annual Precipitation	2,724 – 2,341 mm
IPCC climatic zone	Tropical wet
Elevation	140msl
Soil type within the eligible area	Ferralsols (96%) Acrisols (4%)

Describe the presence, if any, of rare and endangered species and their habitats:

Based on review of the VPA-DD^{02/}, document review, the following threatened fauna species have been identified, by the CME, in the project area:

- *Panthera onca* (Jaguar)
- *Leopardus pardalis* (Ocelot)
- *Ateles belzebuth* (White bellied spider monkey)
- *Myrmecophaga tridactyla* (Giant anteater)
- *Priodontes maximus* (Giant armadillo)
- *Pteronura brasiliensis* (Giant otter)
- *Caiman intermedius* (Caiman)
- *Geochelone denticulate* (Morrocoy turtle)
- *Podocnemis expansa* (Charapa turtle)

VVB, during the on-site inspection, observed that the climate in the country is humid. The on-site inspection has been conducted in the month of July which is rainy season in the country.

Furthermore, VVB, during the stakeholder interviews^{i-xxv/}, has been informed that the project area under the real case VPA is moderately degraded grassland. The eligible project area is covered with grasses and solitary trees of different species which are going to be conserved. As confirmed by the CME, shrubs in the baseline inventory have been considered and discounted as a part of baseline emission. An IPCC default¹ of 16.1 t.d.m ha⁻¹ has been used for discounting the removal of grasses for the entire project area. The trees present on the project land before the project initiation, will be retained and will not be harvested. This approach is acceptable, as these standing trees will be tagged, as confirmed during the on-site inspection, and will not be a part of ex-post project verification (and measurements).

Describe the tree species, varieties, stand arrangements; describe, if applicable, the harvesting cycle and type (selective harvesting or rotation forestry) selected for the Forestry VPA

Based on review VPA-DD^{02/} and on-site inspection interviews^{i-xxv/}, VVB confirms that following 5 native and 1 non-native tree species are included in the real case VPA:

Sr. No	Native tree species
1.	<i>Anadenanthera peregrina</i>
2.	<i>Dipteryx odorata</i>
3.	<i>Jacaranda copaia</i>
4.	<i>Simarouba amara</i>
5.	<i>Ochroma pyramidale</i>
	Non-native tree species

¹ [2006 IPCC Guidelines for National Greenhouse Gas Inventories, Table 6.4, Chapter 6, Grassland](#)

	6.	<i>Terminalia ivorensis</i>
<p>The growth model^{/03/} for all the species, included in the real case VPA, has been developed by the CME, using appropriate literature data^{/09/} and IPCC default values^{/B06/}. VVB, based on the review of the species appropriateness with the site as well the plausibility of literature reviews referred^{/B06/}, confirms that the ex-ante carbon calculation^{/03/} is deemed acceptable. The detailed assessment of growth model can be referred to from section 4.13 of this report.</p> <p>VVB has noted that as per the ex-ante carbon calculation sheet^{/03/} provided, the carbon sequestered by <i>Ochroma pyramidale</i> has been considered as 0 for the whole crediting period. This approach is appropriate and acceptable to the VVB as <i>Ochroma pyramidale</i> is a pioneer species and the approach is conservative.</p> <p><u>Describe the measures and know-how that will be transferred to the host Party, if applicable</u></p> <p>Based on the review of the real case VPA-DD^{/02/}, reforestation techniques including the integration of companion plants next to the tree seedlings will serve as a transfer of know to the host country.</p> <p><u>Describe or list the legal title(s) to the land, current land tenure and rights enabling determination of the owner of the GS VERs to be issued for the Forestry and AGR VPAs</u></p> <p>Based on the desk review^{/02//14/} and on-site inspection/interviews^{/i-xxv/}, VVB confirms that the CME, BaumInvest AG, has full and uncontested legal land title/tenure of the project farm area “Veraneo” via its subsidiary BaumInvest Colombia SAS. VVB has reviewed the document “<i>Matricula_Grundbuchauszug El veraneo auf BICO_11.11.2022_ENG.pdf</i>”^{/14/} confirming the ownership of the land title. Furthermore, the CME has full and uncontested legal ownership of the GS VERs to be issued for the real case VPA. VVB has also reviewed the carbon waiver document from the farm owner to BaumInvest AG. The legal correspondence has been reviewed through the “<i>PODER Veraneo.pdf</i>”^{/14/} by VVB. Hence, VVB confirms that the evidence for the land title and carbon credit ownership is acceptable.</p> <p>Refer to section 4.5.</p> <p>VVB, based on document review^{/02//14/}, on-site inspection and interviews^{/i-xxv/}, confirms that the project description stated in the VPA-DD^{/02/} is in compliance with section 6.1.2 of the GS4GG Programme of Activity requirements and procedures v.2.0^{/B01/}.</p>		

4.2 Technical requirements

a. Key project information

Means of design certification	DR, OSV, I
Findings	--
Conclusion	<p>The proposed VPA is a large-scale project and is in compliance with the section 5.1 of GS4GG Programme of Activity requirements and procedures v2.0^{/B01/}.</p> <p>VVB, based on document review, confirms that all the information stated in the</p>

	VPA-DD ^{02/} on cover page, including Key Project Information is in line with the GS template and section 5.2.1 of GS4GG Programme of Activity requirements and procedures v.2.0 ^{B01/} .
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b. GIS vector layer

Means of design certification	DR, OSV, I
Findings	CAR 04 was raised, which has been satisfactorily closed
Conclusion	<p>As per the review of GIS shapefiles^{15/}, the forest/ non-forest analysis^{11/} has been conducted on the total VPA project area of 1,711.7 ha, which concludes 1,202 ha, as eligible area and 1,069 ha as plantable area. The remaining 509.7 ha (non-eligible farm area) is occupied by forest remnants and small rivers and water creeks.</p> <p>VVB, based on the review of the shapefile “Forest Cover 2010 30m – Veraneo” and wetland inventory from the Humboldt Institute in Colombia and Ramsar sites, as well as through the on-site inspection, confirms that the eligible area does not include wetlands and appropriately demonstrates the absence of any forest land, more than 10 years prior to the VPA start date.</p> <p>VVB, based on desk review, including the assessment of GIS shapefiles^{11/15/} (of project area, eligible area and planting area), confirms that the shapefiles and project boundary has been appropriately defined and are consistent with the information provided in the GS VPA-DD^{02/} and in compliance with Annex C of GS4GG LUF Activity Requirements^{B02/}.</p>

c. Uncertainty of LUF parameters

Means of design certification	DR, OSV, I
Findings	--
Conclusion	<p>CME has submitted the guideline for dealing with data uncertainty^{18/} based on the Annex A-Uncertainty of LUF parameters from the Land use & forests activity requirements, v1.2.1^{B02/}. The data uncertainty associated with the estimation of ex-ante and ex-post estimates to comply with the required target precision of 20% of the mean at a 90% confidence level required by the Gold Standard Certification.</p> <p>BaumInvest follows the three approaches to deal with data uncertainty associated with the estimation of ex-ante and ex-post estimates for the GS certification:</p> <p>Approach 1: requires on-site measurements to directly document pre-project and project activity data.</p> <p>Approach 2: uses peer-reviewed publications to quantify baseline and project activity data. It needs to prove that the research results are conservative and applicable to the project site and management practice.</p> <p>Approach 3: applies default factors to quantify changes but a discounting factor (Uncertainty Deduction) must be applied if compliance with the uncertainty threshold of $\pm 20\%$ at a 90% confidence interval is not satisfied.</p> <p>Based on the review of ex-ante growth model^{03/}, VVB confirms that Approach 2 has been used by the CME for biomass calculation of all species that an uncertainty deduction following GS guidelines was taken into account and the same is deemed appropriate and thus acceptable to the VVB.</p>

	<p>All other parameters for the carbon calculation such as area (as verified by reviewing the forest/non forest analysis^{/11/} and other legal contracts^{/12/}), default values^{/B06/} (wood density, root-to-shoot ratio etc.) have been checked by the VVB and found to be correct.</p> <p>The arithmetic calculation was also reviewed and found to be correct. Based on the verified ex-ante carbon calculation spread sheet^{/03/}, the value of carbon removal works out to be 17.68 tCO₂e/year/hectare(after buffer), which in the opinion of VVB (based on its sectoral, regional expertise and literature review) confirms that the value is plausible and can be achieved if the project is implemented as designed.</p> <p>Based on the assessment above, VVB confirms that the CME has appropriately demonstrated uncertainty analysis in compliance with ANNEX A of the GS4GG LUF Activity Requirements v1.2.1^{/B02/}.</p>
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d. Requirements for LUF smallholder & microscale project

Means of design certification	DR, OSV, I
Findings	--
Conclusion	Not Applicable, since the real case VPA is large scale.

e. Spatial forest/non-forest assessment

Means of design certification	DR, OSV, I
Findings	CL 10 & CAR 04 was raised, which has been satisfactorily closed
Conclusion	<p>VVB, based on the review of Forest/ Non-Forest Analysis report^{/11/}, confirms that CME has appropriately conducted a forest/non-forest assessment to determine eligible areas to issue GSVERs in compliance with Annex C of the GS4GG Land Use & Forests Activity Requirements, version 1.2.1^{/B02/}.</p> <p>Based on the review of Forest/Non-Forest Analysis report^{/11/}, multiple scenes of Sentinel-2 MSI and Level 1-C Imagery for 2022 has been used by the CME to conduct the spatial analysis. VVB confirms that CME has appropriately reported the type of remote sensing data (e.g., satellite, radar, spatial resolution) and source/s of the data and any relevant support documentation that helps in the replication and accurate assessment of the spatial analysis.</p> <p>VVB confirms that the remote sensing scenes have been dated:</p> <ul style="list-style-type: none"> i at least 10 years before the start date of the project, and ii at project start date <p>Based on the review of Forest/Non-Forest Analysis report^{/11/} in compliance with Annex C of the GS4GG Land Use & Forests Activity Requirements, version 1.2.1^{/B02/}, VVB, confirms that the following information/data have been reported in the VPA-DD^{/02/}:</p> <ul style="list-style-type: none"> i. Type of sensor used, spatial resolution, path/row, date of the scenes used

	<p>The sensors used for the tree cover data for 2022 come from random forest classification conducted on a Sentinel-2 MSI: Multispectral Instrument, Level-1C Imagery with a spatial resolution of 10-meter. The date of the scenes used is from 01-01-2022 to 10-11-2022.</p> <p>ii. Description of the method and software used in the pre-processing and classification process</p> <p>The software used for classification are Google Earth Engine & QGIS. The random forest classification has been compiled using the Optical Mosaic recipe function at sepal.io. No pixel filter was applied based on “Shadow”. The coordinate reference system (CRS) used is EPSG: 32619 - WGS 84 / UTM zone 19N.</p> <p>iii. Description of how issues with areas under clouds/shadows were dealt with:</p> <p>In the case of scenes that date 10 years before the project start date, the Project Developer should conservatively consider all areas under shadows/clouds as not eligible</p> <p>In the case of scenes at project start date, if the start date is more than 1 year before the start of Preliminary Review, then the Project Developer should conservatively consider all areas under shadows/clouds as not eligible. In such cases, a Project Developer could prove eligibility by conducting a ground- truthing exercise to verify the land-cover for areas under clouds/shadows. The Project Developer shall report on how the ground-truthing was conducted, and which areas were visited (only visited areas can be included in such analysis; sampling is not allowed)</p> <p>To address the cloud problem, cloud mask for individual scenes have been produced using the quality assessment band present in Landsat data products. The cloud free area is obtained using the different Landsat scene preferably same time of the year to obtain information from whole study area. VVB, confirms that the project start date (02/05/2023) is not more than 1 year before the start of Preliminary Review (22/05/2023).</p> <p>Clearly map all polygons covered by shadows/clouds and present a table with the areas of each polygon and the total area in hectares</p> <p>Not applicable, as the cloud free area has been obtained using the Landsat scene.</p> <p>Develop a combined mask for the areas under clouds/shadows in both scenes and apply it to the scenes proceeding to the classification</p> <p>To address the cloud problem, cloud mask for individual scenes have been produced using the quality assessment band present in Landsat data products. The cloud free area is obtained using the different Landsat scene preferably same time of the year to obtain information from whole study area.</p> <p>Include a map of the classified scenes (10 years before and at project start date) with the forest/non-forest classes before and after the application of the selected forest definition as MPU (resampling).</p> <p>The shapefiles for the year 2010 has been provided. VVB has reviewed the shapefiles and compared it against the latest shapefiles for year 2022 for determining the forest/non-forest classes before and after the application of the selected forest definition as MPU.</p>
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iv. Classify the scenes with the original spatial resolution. Then, resample the classification products for each scene. The final non-eligible areas within the project area will be the cumulative forest areas from both classified scenes. Generate a shapefile of the eligible area.

The mapped areas forest and non-forest areas have been resampled at approximately 45.470 km² to get the best land cover classification possible. The original resolution has been kept as 10 meter and the resampling has been done at 20-meter resolution for the year 2022. The shapefiles of the eligible area has been reviewed by VVB which are deemed valid.

v. Include a description of how the accuracy assessment was conducted (e.g. how the assessment points were selected and how the confusion matrix was prepared and interpreted). The accuracy must be calculated and reported on class-by-class and for the overall classification. The accuracy assessment of the classification must be conducted using ground-truth data (surveys) or remote sensing imagery of higher resolution of that used for the classification. The minimum overall accuracy for each class should be 90%.

The accuracy assessment of forest, non-forest map has been assessed using the out of bag error and user's accuracy method. The sample point left out of the random forest classification has been used for the accuracy analysis. The accuracy assessment of the 2022 land cover classification are detailed in table 3 of the report. The out of bag error identified was 1.6%.

The overall accuracy of forest and non-forest areas are 95% as mentioned in table 3 of the report^{11/}.

vi. Provide a shapefile with the points used for the accuracy assessment.

VVB, based on the review of shapefiles^{15/}, confirm that points used for the accuracy assessment have been appropriately defined.

vii. A final table indicating the total area (in hectares) of the project area, modelling units (planting area), and the 10% set aside for the conservation area.

The total area derived from the spatial forest/non-forest assessment^{11/} is 1,711,7 ha. Out of which 1,202 ha is eligible area and 509.7 ha area is not eligible for planting occupied by forest remnants, small rivers and water creeks. There is only one modelling unit for the real case VPA with an area of 1,069 ha which is the planting area. There is no 10% area set aside for the conservation as the whole project is a conservation project.

viii. The use of already classified remote sensing products coming from official sources (national/government institutions) is allowed. If this data is used, then the Project Developer shall explain the type of remote sensing imagery used in that analysis, the method, and the accuracy as reported by the original source.

The European Space agency (ESA) worldcover 10m 2021 product was used as a label for training samples. The sentinel-1 images has been used in the land cover classification. The details for the absolute orbit number, mission data take Id & product unique identifier has been provided in the Appendix 1 of the "Report-BaumInvest EI Placer-Final 230605"^{11/}.

	<p>ix. When using publicly available remote sensing products that show tree cover instead of forest cover (i.e. Global Forest Watch), then a Project Developer should prove that the selected tree cover percentage is representative of the DNA or national host or FAO forest definition, as necessary.</p> <p>The defined MPU is applied in the project according to requirements listed in CDM: Full list of DNAs (unfccc.int) for the host country.</p> <p>References used in the Forest/ Non-Forest Analysis^{/11/}</p> <ul style="list-style-type: none"> • Global 2010 Tree Cover (30 m) GLAD (umd.edu) • ESA WorldCover 2021 • UNEP-WCMC and IUCN (2022), Protected Planet: The World Database on Protected Areas (WDPA) [On-line], Cambridge, UK: UNEP-WCM
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f. LUF input & grievance mechanism

Means of design certification	DR, OSV, I
Findings	--
Conclusion	<p>VVB, based on on-site inspection interviews^{/i-xxv/} and document review^{/01/02/20/}, confirms that the Grievance Expression Process box has been kept at BaumInvest house in the farm Veraneo and El Placer/El Tuparro Community center. Furthermore, VVB has interviewed the farm manager and confirms that the input and grievances are checked at least once per month.</p> <p>The BaumInvest Latin America S.R.L (BILA) is responsible for reviewing all inputs within 4 weeks of receipt. The inputs and grievances received are documented and stored in the CME database which has been verified by VVB during the on-site inspection. The feedback received are digitalized by project GS ID, location and date. Accordingly, the actions and response from the CME are also recorded in the database.</p> <p>Based on the above assessment, VVB confirms that the LUF input & grievance mechanism has been appropriately demonstrated in line with ANNEX D of GS4GG LUF Activity requirements v1.2.1^{/B02/} and Section 4.1.34 of GS4GG Principles and Requirements v1.2^{/B01/}.</p>

4.3 Eligibility of the VPA under approved PoA

Means of design certification	DR, OSV, I	
Findings	--	
Conclusion	<p>VVB, based on document review^{/01/02/} and on-site inspection/interviews^{/i-xxv/}, confirms that the CME has appropriately demonstrated eligibility of VPA. The detailed assessment of eligibility of VPA is in line with the requirement of section A.1.1 of GS VPA-DD^{/02/} is as follows:</p>	
	As per section 3.1.1 of GS4GG Principles & Requirements^{/B01/}	
	Eligibility Criteria	Compliance
	<p>Types of Projects: Eligible projects shall include physical action/implementation on the ground.</p>	<p>Based on the desk review^{/01/02/} and on-site inspection/interviews^{/i-xxv/}, VVB confirms that the project is an</p>

	<p>Pre-identified eligible project types are identified in the Eligibility Principles and Requirements section.</p>	<p>Afforestation/ Reforestation project.</p>
	<p>Location of Project: Projects will be located in Costa Rica and Dominican Republic (batch 1) and Colombia, Honduras, Panama, Belize and Guatemala (batch 2).</p>	<p>VVB has reviewed the farm boundary shapefiles^{/15//16/} and confirms that the project is located in Veraneo farm in the department of Vichada, close to the small village of El Placer/El Tuparro and is in compliance with the PoA-DD^{/01/}.</p>
	<p>Project Area, Project Boundary and Scale: The Project Area and Project Boundary shall be defined. Projects may be developed at any scale although certain rules, requirements and limitations may apply under specific Activity Requirements, Impact Quantification Methodologies and Products Requirements. In order to avoid double counting the Project shall not be included in any other voluntary or compliance standards programme unless approved by Gold Standard (for example through dual certification). Also, if the Project Area overlaps with that of another Gold Standard or other voluntary or compliance standard programme of a similar nature, the Project shall demonstrate that there is no double counting of impacts at design and performance certification (for example use of similar technology or practices through which the potential arises for double counting or misestimation of impacts amongst projects)</p>	<p>Based on review of section F of the VPA-DD^{/02/} and shapefiles^{/15//16/}, VVB confirms that the project area and project boundary has been appropriately defined. Furthermore, the project scale is large scale as the expected GHG removals are 24,289 tCO₂e/year^{/02/03/}(excluding buffer) which deems to be valid by VVB and are in compliance with section 5.1 of the PoA requirements and procedures v2.0^{/B01/}.</p> <p>CME has provided the declaration^{/17/} confirming that the project has not been registered with any other voluntary or compliance schemes. VVB, further confirms this through checking the public website of other emission trading programs. (CDM/ VCS/Social Carbon /Plan Vivo)^{/B05/}.</p>
	<p>Host Country Requirements: Projects shall be in compliance with applicable Host Country's legal, environmental, ecological and social regulations.</p>	<p>Based on the on-site inspection interviews^{/i-xxv/} and desk review^{/01//02/}, VVB confirms that project is in compliance with applicable Host Country's regulations. The CME follows internal company policy which follows Colombian legislation. An OECD anti-bribery convention has been signed by host country and is followed by CME. The VPA is in compliance with the Law 2 of 1959 (Forest code), Law no 79-Rules for</p>

		water conservation, Article 1 and Corporinoquia Resolucion 200.41-11.1130 issued in 2011.
	<p>Contact details As part of the Project Documentation the Project Developer shall provide (i) name and (ii) contact details of all Project Participants; and in case of an organisation (iii) the legal registration details and (iv) documentation by the governing jurisdiction that proves that the entity is in good standing(defined as being a legal or other appropriate entity registered in or allowed to operate within the required jurisdiction and with no evidence of insolvency or legal/criminal notices placed against it or any of its Directors).Gold Standard retains the right (at its own discretion) to refuse use of the Standard where reputational concerns are highlighted.</p>	Based on the on-site inspection interviews ^{/i-xxv/} and desk review ^{/01//02/} , VVB confirms that the CME has provided the contact and legal registration details in Appendix-1 of the GS PoA-DD ^{/01/} and Appendix-2 of GS VPA-DD ^{/02/} which is valid and appropriate.
	<p>Legal Ownership: Full and uncontested legal ownership of any Products that are generated under Gold Standard Certification, (for example carbon credits) shall be demonstrated. Where such ownership is transferred from project beneficiaries this must be demonstrated transparently and with full, prior and informed consent (FPIC). Note that for certain Project types there is a requirement for full and uncontested legal land title/tenure to be demonstrated. These are contained within specific Activity or Product Requirements. All projects shall immediately report to Gold Standard any land title/tenure disputes arising.</p>	VVB, based on on-site interviews ^{/i-xxv/} and supporting evidence ^{/12//13//14/} , confirms that the CME has provided the legal ownership details in section A.1.2 of the VPA-DD ^{/02/} . VVB has reviewed the “ <i>HR-Auszug de BICO_Camara de comercio_25.05.2023_ENG</i> ” ^{/13/} and confirms that the ownership of the project is with BaumInvest Colombia S.A.S which is a subsidiary of BaumInvest AG. Furthermore, the carbon waiver letter ^{/12//14/} has also been provided by the CME which provides full and uncontested legal ownership of any products that are generated under Gold Standard Certification.
<p>Other Rights: As well as legal title and ownership, the Project Developer shall also demonstrate where required uncontested legal rights and/or permissions concerning changes in use of other resources required to service the Project (for example, access rights, water rights etc.). Any known disputes or contested rights must be declared</p>	Not applicable as the CME has demonstrated legal uncontested ownership through the evidence.	

	<p>immediately to Gold Standard by the Project Developer and resolved prior to further project implementation in affected areas.</p>	
	<p>Official Development Assistance (ODA) Declaration: All Project Developers applying for project activities located in a country named by the OECD Development Assistance Committee's ODA recipient list and seeking Gold Standard Certification for carbon credits shall declare the Official Development Assistance (ODA) support. The Project Developer shall follow the GHG Emissions Reduction & Sequestration Product Requirements and submit the declaration at the time of Design Certification.</p>	<p>The ODA declaration form^{/26/} from VPA implementer has been reviewed by VVB confirming that there is no diversion of ODA. This has been further confirmed during the on-site interviews^{/i-xxv/}.</p>
	<p>As per section 2 of GS4GG Land Use & Forests Requirements^{/B02/}</p>	
	<p>Eligible project types: Eligible project types are Afforestation & Reforestation Projects (A/R) and Agriculture Projects (AGR).</p>	<p>Based on the on-site inspection/ interviews^{/i-xxv/} and desk review^{01/02/}, VVB confirms that the project is an Afforestation & Reforestation Project (A/R) which involves plantation of 5 native and 1 non-native tree species.</p>
	<p>No Deforestation: The eligible area shall not meet the definition of forest 10 years before project start date and at project start date.</p>	<p>Based on the on-site inspection/ interviews^{/i-xxv/} and desk review^{02/11/}, VVB confirms that the eligibility of the project area (planting area) has demonstrated by a remote forest/non-forest analysis^{/11/} through different satellite images at the Project level. Hence, VVB confirms that eligible area does not meet the definition of forest prior to 10 years of project start date. It has been further confirmed by reviewing the shapefiles for the year 2010^{/15/}.</p>
<p>In the case when the eligible area has been deforested during the last 10 years prior to project start date, the eligibility of the project shall be determined by Gold Standard as part of the Preliminary Review: The Project Developer shall provide evidence that the deforestation activity has not taken place with an intention to implement project activities that generate Gold Standard</p>	<p>Not applicable</p>	

	Certified SDG Impact Statements and/or Products, such as GSVERs.	
	Double counting: Projects issuing GSVERs with a vintage of 2021 or later and which are used i) towards an NDC or domestic climate mitigation target other than that of the Host Country; ii) under CORSIA shall conform to the GHG Emissions Reduction and Sequestration Product Requirements - Annex A. Annex A requirements are not applicable for projects generating GS VERs which do not fall under the abovementioned uses.	VVB, based on review of VPA-DD ^{/02/} , confirms that the GS VERs are not used towards an NDC or domestic climate change target other than that of the host country nor used under CORSIA. The declaration ^{/17/} has been provided confirming the avoidance of double counting of the VPA.
	Eligible A/R projects: <ul style="list-style-type: none"> • Can include planting trees. • Can include single- species plantations. • Can apply all silvicultural systems, e.g., conservation forests (no use of timber); forests with selective harvesting;rotation forestry • All projects can include agriculture (agroforestry) or pasture (silvi-pasture) activities 	VVB, based on review of VPA-DD ^{/02/} and on-site interviews ^{/i-xxv/} , confirms that the project activity includes plantation of site-adapted 5 native and 1 non-native tree species (adapted) and applies conservation forest (no use of timber) activities. Thus, the VPA is eligible and in compliance with the section 2 of the GS4GG land use & forestry requirements ^{/B02/} .
	FSC Dual Certification	Not applicable
	Secured Titles: For all project participants, the following information and evidence shall be provided: (a) Name and contact details (b) Each entity's legal registration number and documentation by the governing jurisdiction that proves that the entity is in good standing. AND I For the duration of the crediting period the Project Developer: i. must own the CO2 user rights or carbon sequestration rights for the project area, AND ii. hold an uncontested legal land title for the Project Area, AND iii. own the rights for timber and non-timber forest products for the project area, AND iv. hold all necessary permits to implement the project (planting permits, infrastructure permits,	VVB, based on the on-site inspection interviews ^{/i-xxv/} and desk review ^{/01/02/13/} , confirms that CME (BaumInvest AG) through its subsidiary BaumInvest Colombia S.A.S has legal ownership of the land and products, namely the CO ₂ user rights, or carbon sequestration rights generated by the Project. Further, CME has provided contact details and legal registration details in Appendix 2 of GS VPA-DD ^{/02/} .

	harvesting permits, etc.), AND v. participate in the financing of the project.	
	Safeguarding Principles & Requirements: The Project Developer shall conduct the Safeguarding Principles Assessment following Safeguarding Principles & Requirements and Risks & Capacities Guideline assessed for the Project Area, taking into account likely issues in the context of the Project Region.	Refer to Assessment of Safeguarding Principles in Appendix 1 of this report.
	Protected Areas: A minimum of 10% of the total Project Area shall be identified and used to protect or enhance the biological diversity following High Conservation Value (HCV) approach.	<p>As per the VPA-DD^{/02/}, the 10% area set aside conservation area is not applicable as the whole project is for conservation. The designated protected areas are located within the project area and are managed by the project developer.</p> <p>VVB, based on the review of the VPA-DD^{/02/}, Forest Management Plan^{/22/} and GIS shapefiles, confirms that the project does not include any harvesting and is following the “conservation forest” silviculture system, which is managed by project developer.</p> <p>These planting areas have been verified with GPS coordinates and shapefiles^{/15/}. Planting areas has been planted with site adaptive 5 native and 1 non-native (adapted) trees species with the purpose of conservation.</p>
	Buffer zones for water bodies: The Project Developer shall maintain a buffer zone of 15 meters for water bodies on both sides of any permanent or temporary water bodies such as lakes, streams, rivers, wetlands, etc., Irrigation channels are excluded from this requirement.	Based on the on-site inspection interviews ^{/i-xxv/} and desk review ^{/15/} , VVB confirms that buffer zone has been maintained for water bodies which includes all existing native trees will be kept, no logging activities, no usage of fertiliser and pesticides, no usage of heavy machinery and no cropping are allowed. In case trees are being planted, these are going to be native tree species.
	Stakeholder inclusivity: The Stakeholder Consultation shall be conducted prior to the project start	Based on the on-site inspection interviews ^{/i-xxv/} and document review ^{/02/} , VVB confirms that the

	<p>date. The Project Developers shall refer to Stakeholder Consultation Engagement Requirements for further details.</p>	<p>project complies with the Gold Standard Stakeholder Consultation and Engagement Requirements (version 2.0)^{B03/}. The stakeholder consultation has been conducted on 15/04/2023 and 21/04/2023 before the project start date i.e., 02/05/2023.</p>
	<p>Crediting period: The crediting period shall be a minimum of 30 years and maximum 50 years. The crediting period starts either with the Project Start Date or three years prior to the date of Project Design Certification, whichever occurs later</p>	<p>Based on the review of section C.2 of the GS VPA-DD^{02/}, VVB confirms the crediting period of the VPA is of 40 years i.e., 02/05/2023 to 01/05/2063.</p>
	<p>Additionality: Any Project shall demonstrate additionality as per the Principles & Requirements, or GHG Emissions Reduction and Sequestration Product Requirements, as applicable.</p>	<p>Refer assessment of (Section 4.11).</p>

4.4 Legal ownership of products generated by the VPA and legal rights to alter use of resources required to service the project

Means of design certification	DR, OSV, I
Findings	--
Conclusion	<p>In compliance with section 6.1.2 I of the GS4GG Programme of Activity requirements and procedures v.2.0^{B01/} and section 2.1.9(c) of the GS4GG LUF Principles & Requirements v1.2,1^{B02/}, CME has appropriately defined the section A.1.2 of the GS VPA-DD^{02/}.</p> <p>i. In line with the template instructions, VVB has assessed the section as follows. <u>Full and uncontested legal ownership of all Products that are generated under Gold Standard Certification (where such ownership is transferred from project beneficiaries this must be demonstrated transparently and be discussed during local stakeholder consultations)</u></p> <p>As per section A.1.2 of the GS VPA-DD^{02/},</p> <p><i>“The CME BaumInvest AG, Talstraße 30, 79102 Freiburg, GERMANY has the full and uncontested legal ownership of the products that are generated under Gold Standard Certification, namely the CO2 user rights, or carbon sequestration rights generated by the VPA. The CME BaumInvest AG has full and uncontested legal land title/tenure of the project area via its subsidiary BaumInvest Colombia S.A.S. No potential project partners beyond BaumInvest Colombia S.A.S. have the legal right on the project or project areas, or any rights on the carbon credit certificates generated by the present project, or any other project managed and/or implemented by BaumInvest AG”.</i></p>

	<p>VVB, based on the evidence provided^{/12/}, confirms that the legal ownership of all products generated under Gold standard certification lies with the CME i.e., BaumInvest AG.</p> <p>ii. <u>Legal rights concerning changes in use of resources required to service the Project (e.g water rights)</u></p> <p>Not applicable.</p> <p>iii. <u>Full and uncontested legal land title/tenure required to implement the Project (e.g., A/R projects, see LUF Activity Requirements)</u></p> <p>As per the section A.1.2 of the GS VPA-DD^{/02/}, <i>“The CME BaumInvest AG has full and uncontested legal land title/tenure of the project area via the legal entity BaumInvest Colombia S.A.S which is a 100% subsidiary of the VPA implementer BaumInvest AG.”</i></p> <p>VVB, based on the evidence for purchase agreement of the farm^{/14/} confirms that the legal land title of farm “Veraneo” lies with the BaumInvest AG via its subsidiary.</p>
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4.5 Location of VPA

Means of design certification	DR, OSV, I
Findings	CL 10 was raised, which has been satisfactorily closed
Conclusion	<p>Based on the review of the section A.2 of the GS VPA-DD^{/02/} and document review^{/15//16/}, the VPA is located in farm area namely <i>Veraneo</i> in the department of Vichada in Colombia, in the central north-east of the municipality of Cumaribo, close to the small village of El Placer/El Tuparro.</p> <p>Furthermore, VVB verified the geo-coordinates of the farm area included within the VPA during the field visit.</p>

4.6 Technologies and/or measures

Means of design certification	DR, OSV, I
Findings	--
Conclusion	<p>As per section A.3 of the GS VPA-DD^{/02/}, the project aims at restoring forest landscapes through targeted reforestation with site-adapted native tree species and one non-native species, and/or human assisted or natural regeneration.</p> <p>Furthermore, the project objective is to plant 1,069 ha with 5 native and one non-native site adapted tree species. The planting also includes mixed planting design, that includes “Heliofitas efimeras, Ephemeral heliophytes” (Pioneer), “Heliofitas durables, Durable heliophytes” (Non-pioneer) and “Esciofitas, Sciophytes” (Shade tolerant species).</p> <p>The 841 trees/ha is the initial planting density. Two types of spacing are implemented: 4x4 m between the “heliofitas efimeras” and “heliofitas</p>

	durables” species and 4x2 m between the “heliofitas efimeras” and “heliofitas durables” and “esciofitas” species.			
	Based on desk review ^{02/} and on-site inspection/interviews/i-xxv/, VVB confirms that following tree species included in project:			
	Sr. No	Native tree species	Common name	Ecological group
	1.	<i>Anadenanthera peregrina</i>	Yopo Negro	Sciophytes (Esciofita)
	2.	<i>Dipteryx odorata</i>	Sarupio	Sciophytes (Esciofita)
	3.	<i>Jacaranda copaia</i>	Pavito	Durable heliophytes (Heliofita durable)
	4	<i>Simarouba amara</i>	Machaco	Durable heliophytes (Heliofita durable)
	5.	<i>Ochroma pyramidale</i>	Balsa	Ephemeral heliophytes (Heliofita efimera)
		Non-native tree species	Common name	Ecological group
	6.	<i>Terminalia ivorensis</i>	Framine	Durable heliophytes (Heliofita durable)

4.7 Scale of the VPA

Means of design certification	DR, OSV, I
Findings	--

Conclusion	VVB confirms that the VPA is a “large scale” (> 16,000 tCO ₂ e/yr) as the expected average emission removals is 24,289 tCO ₂ e/year. This is as per section 5.1 of Programme of activity Requirements and Procedures v2.0 ^{/B01/} .
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4.8 Funding sources of VPA

Means of design certification	DR, OSV, I
Findings	CL 06 & CL 07 was raised, which has been satisfactorily closed
Conclusion	<p>Based on document review and on-site inspection interviews^{/i-xxv/}, VVB confirms that the project is privately funded by the CME, BaumInvest AG and there is no public funding or ODA^{/26/} involved in this project.</p> <p>A simple cost analysis^{/25/} has been provided and further verified by the VVB, to demonstrate that the proposed A/R activity generates no financial benefits other than VER related income.</p>

4.9 Application of approved Gold Standard Methodology (ies) and/or Demonstration of SDG Contributions

Methodology (ies) reference of approved methodology (ies)

Means of design certification	DR, OSV, I
Findings	--
Conclusion	<p>Based on the review of section B.1 of the GS VPA-DD^{/02/}, CME has appropriately provided references of all methodologies and tools used which are as follows:</p> <ul style="list-style-type: none"> • GS AR GHG Emissions Reduction & Sequestration Methodology v2.0^{/B01/} • A/R Methodological tool “Combined tool to identify the baseline scenario and demonstrate additionality in A/R CDM project activities”, Version 01^{/B04/} • LUF A/R Methodology Soil Carbon Tool v1.0^{/B04/}

Applicability of methodology (ies)

Means of design certification	DR, OSV, I	
Findings	CL 04 was raised, which has been satisfactorily closed	
Conclusion	<p>VVB, based on desk review^{/01/02/} and on-site inspection interviews^{/i-xxv/}, confirms that the CME has appropriately demonstrated eligibility of methodology requirements. The detailed assessment of eligibility of methodology is in line and provided in section B.2 of GS VPA-DD which is as follows:</p>	
	As per section 2 of GS A/R Methodology, Version 2.0^{/B01/}	
	Methodology requirements	Assessment of compliance

	<p>1. The proposed project apply Gold Standard for the Global Goals Principles & Requirements and all other associated and referenced documents.</p>	<p>Based on desk review^{/01/02/} and on-site inspection interviews^{/i-xxv/}, VVB confirms that GS4GG principles and requirements^{/B01/B02/B03/B04/} and all associated and referenced documents have been applied by the CME.</p>
	<p>2. Projects that include the planting of trees on land that does not meet the definition of a forest at planting start are eligible to apply this methodology. The project area shall meet all of the requirements below for this methodology to be applicable for the calculation of CO₂-certificates from the project.</p>	<p>Based on desk review^{/02/11/15/} and on-site inspection interviews^{/i-xxv/}, VVB confirms that the project is being implemented on lands that were former grasslands used for extensive cattle farming and does not meet the definition of forest 10 years before project start date and at project start date and is therefore considered to be eligible. This has been further confirmed through reviewing the spatial forest/non-forest assessment report^{/11/}.</p>
	<p>3. Projects can apply all silvicultural systems: Conservation forests (no use of timber), Forests with selective harvesting and rotation forestry.</p>	<p>Based on desk review^{/02/} and on-site inspection/interviews^{/i-xxv/}, VVB confirms that VPA has applied the “conservation forest” silvicultural system with crediting period of 40 years which is intended by CME to donate the project area to the nearby Tuparro National Park. The project does not include any harvesting and is being implemented for conservation purpose only.</p>
	<p>4. Project Areas shall not be on wetlands</p>	<p>VVB, based on the review of the <u>Resultados de la búsqueda Servicio de Información sobre Sitios Ramsar</u>, confirms that the VPA project area does not meet the criteria or is located under land classified as wetland. This has also been confirmed through the remote sensing analysis by VVB. The predominant soils on the eligible planting area are Ferralsols and Acrisols which are not classified as wetland by IPCC^{/B06/}. Furthermore, VVB has also confirmed it through reviewing the Ramsar sites and Reports Humboldt for wetlands^{/B06/}.</p>

	5. Project Areas with organic soils shall not be drained or irrigated (except for irrigation for planting).	VVB, based on the review of GS VPA-DD ^{02/} , confirms that the project area under this VPA does not contain organic soils. The soils in the project area are Ferralsols and Acrisols which are not classified as organic soil. This has been further confirmed by VVB through reviewing the “IPCC default soil classes derived from the Harmonized World Soil Data Base” ^{B06/} .
	6. Soil disturbance (through ploughing, digging of pits, stump removals, infrastructure, etc.) on organic soils shall be in less than 10% of the area that is submitted to certification (not 10% of the entire project area).	Based on the assessment above, VVB confirms that the project area under VPA does not include organic soils or soil types can be classified as LAC soils.
	7. The most likely scenario without the project (baseline scenario) shall be defined for the project area. This scenario shall not show any significant increase of the Baseline biomass (‘tree’ and ‘non-tree’).	In compliance to section 3 of GS A/R Methodology ^{B01/} , CME appropriately demonstrated baseline scenario for the project area in section B.4 of the VPA-DD ^{01/} . Refer section 4.11 of this report.

VPA boundary

Means of design certification	DR, OSV, I																	
Findings	CAR 02 was raised, which has been satisfactorily closed																	
Conclusion	<p>Carbon Pools</p> <p>Based on the review of GS VPA-DD^{02/} and compliance with section 3 of the Gold Standard Afforestation/Reforestation (A/R) GHG Emissions Reduction & Sequestration Methodology, version 2.0^{B01/}, VVB has reviewed the project boundary carbon pools and emissions as follows:</p> <p>Carbon Pools</p> <table border="1"> <thead> <tr> <th>Carbon Pools</th> <th colspan="2">Includes</th> <th>Baseline (CO₂ fixation)</th> <th>Project scenario (CO₂-Fixation)</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Tree Biomass</td> <td>Above ground</td> <td>Stem, branches, bark</td> <td>Yes</td> <td>Yes</td> </tr> <tr> <td>Below ground</td> <td>Tree roots</td> <td>Yes</td> <td>Yes</td> </tr> </tbody> </table>				Carbon Pools	Includes		Baseline (CO ₂ fixation)	Project scenario (CO ₂ -Fixation)	Tree Biomass	Above ground	Stem, branches, bark	Yes	Yes	Below ground	Tree roots	Yes	Yes
Carbon Pools	Includes		Baseline (CO ₂ fixation)	Project scenario (CO ₂ -Fixation)														
Tree Biomass	Above ground	Stem, branches, bark	Yes	Yes														
	Below ground	Tree roots	Yes	Yes														

	Non-tree biomass	Above ground	Grass, herbs, etc.	Yes	No
		Below ground	Roots of grass, herbs, etc.	Yes	No
	Soil		Organic material	No	Yes
	Harvested wood (timber & energy wood)		Furniture, construction	No	No
	Litter & Lying dead-wood		Leaves small fallen branches, lying dead wood	No	No
<p>Other emissions: N₂O emissions from the fertiliser use has been accounted for the years of application. The calculations has been incorporated in the provided ex-ante carbon calculation sheet^{/03/} which has been reviewed by VVB and are valid.</p> <p>Overall, in the opinion of VVB project boundary is correctly defined and in compliance with the applicable methodology^{/B01/} and GS requirements^{/B01/B02/}.</p>					

4.10 Establishment and description of baseline scenario

Means of design certification	DR, OSV, I
Findings	--
Conclusion	As per the GS VPA-DD ^{/02/} , the baseline scenario has been determined by using A/R CDM 'Combined tool to identify the baseline scenario and demonstrate additionality in A/R CDM project activities' (version 01) ^{/B04/} . The most likely land-use scenario in the absence of the Project - or baseline scenario - would be the maintenance of pastureland (through recurrent fires) to keep the economic value of the farm. VVB has assessed the historical maps provided in the forest/ non-forest assessment ^{/11/} and confirms the same. The baseline scenario has also been witnessed and confirmed by the VVB during the on-site inspection. (Refer section 4.11).

4.11 Demonstration of additionality

Means of design certification	DR, OSV, I
Findings	CL 07 & CAR 03 was raised, all of which has been satisfactorily closed
Conclusion	Additionality Option 2- Positive list

	<p>The methodology used in the project activity is GS A/R methodology version 2.0. Additionality has been demonstrated through the section 3.1.16 of Land use & forests activity requirements v1.2.1.</p> <div style="border: 1px solid black; padding: 10px; margin: 10px 0;"> <p>(a) The project is located in a Less Developed Country (LDCs) or in a region with a recent <i>UNDP Human Development Indicator</i> below 0.8.</p> <p>(b) The project does not intend to create a forest for the commercial use of the timber or non-timber forest products AND</p> <p>(c) The project activities will not be mandatory by any law or regulation, OR if it is mandatory, it shall demonstrate that these laws or regulations are systematically not enforced AND</p> <p>(d) The planting area is planted with a minimum of 5 different native tree species in mixed stand, covering a minimum of 50% of the planting area.</p> </div> <p>a) Based on the review of the UNDP Human Development Index for 2021 (latest published data)^{B06/}, VVB confirms that the score is 0.752. Thus, the requirement of UNDP Human Development Indicator below 0.8 is satisfied.</p> <p>b) VVB, based on review of VPA-DD^{02/} and on-site interviews^{/i-xxv/}, confirms that the project does not include harvesting of trees for commercial use and is developed as a conservation forest with plantation of site adaptive 5 native and 1 non-native tree species.</p> <p>c) VVB, based on own research, confirms that there are currently no laws enforcing the restoration activities of forest landscape. The applicable laws has been assessed in section 4.3 of this report.</p> <p>d) VVB, based on forest management plan and VPA-DD^{01/}, confirms that the VPA includes plantation of five native and one non-native tree species as mentioned in section 4.6 of this report in mixed stands, covering 100% of the planting area. This has been also confirmed by VVB during the on-site inspections.</p> <p>Overall conclusion:</p> <p>VVB confirms that the proposed VPA meets the requirements (a), (b), (c) of the positive list and requirement (d) of the section 3.1.16 of Land use & forests activity requirements v1.2.1 which makes the VPA additional.</p>
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4.12 Data and parameters fixed ex-ante

Means of design certification	DR, OSV, I
Findings	CAR 02 was raised, which has been satisfactorily closed

Conclusion	Based on the review of the VPA-DD ^{/02/} , the data and parameters fixed ex ante are as follows:		
	Data and parameters fixed ex ante	Value applied	Assessment of Compliance
	Biomass Expansion Factor (BEF)	<i>Anadenathera peregrina</i> - 1.431 <i>Dipteryx odorata</i> - 1.5 <i>Jacaranda copaia</i> - 1.392 <i>Simarouba amara</i> - 1.431 <i>Terminalia ivorensis</i> - 1.5 <i>Ochroma pyramidale</i> - 1.5	VVB confirms that the BEF value of 1.5 for Tropical broadleaf forest type has been taken from IPCC LUCLUF, Good Practice Guidance for Land Use, Land-Use Change and Forestry, Annex 3A.1 Biomass Default Tables for Section 3.2 Forest Land. Furthermore, the BEF value of 1.431, 1.392 & 1.431 for the remaining species is valid and has been cross checked by VVB ^{/09/} .
	Root to shoot ratio (RTS)	<i>Anadenathera peregrina</i> - 0.318 <i>Dipteryx odorata</i> - 0.42 <i>Jacaranda copaia</i> - 0.207 <i>Simarouba amara</i> - 0.318 <i>Terminalia ivorensis</i> - 0.42 <i>Ochroma pyramidale</i> - 0.42	VVB confirms that mean of RTS ratio of 0.42 for secondary tropical/sub-tropical vegetation type has been taken from IPCC LUCLUF, Good Practice Guidance for Land Use, Land-Use Change and Forestry, Annex 3A.1 Biomass Default Tables for Section 3.2 Forest Land. Furthermore, the RTS values for the remaining tree species is also valid and has been cross checked by VVB against the source provided ^{/09/} .
	Carbon fraction for tree biomass (tC/tdm)	0.5	As per section B.6.2 of the VPA-DD ^{/02/} , default value of carbon fraction for tree biomass i.e., 0.5 t C/tdm has been used as per GS A/R GHG Emissions Reduction & Sequestration Methodology, version 2.0 ^{/B01/} which is valid and appropriate.
	Conversion factor 'C' to 'CO ₂ '	44/12 tCO ₂ /tC	VVB confirms that the default value of 44/12 has been taken for conversion from the GS A/R GHG Emissions reduction Reduction & Sequestration Methodology, version 2.0 ^{/B01/} , which is valid and appropriate.
	Baseline non-tree biomass: grassland	23.6 tCO ₂ /ha	VVB confirms that the value has been calculated through the default biomass stock present on grassland for Tropical-Moist & Wet IPCC climate zone under table 6.4 of the 2006 IPCC Guidelines for National Greenhouse Gas Inventories ^{/B06/} . The value calculated through the default value is valid and appropriate.

Baseline non-tree biomass: default values for shrubs	CF) 0.47 tC; (Rs) 0.40; (BDRsf) 0.10; ("bFOREST") 196 t.d.m/ha	VVB confirms that the default value of biomass (aboveground) t.ha of 196t/ha has been taken for Colombia region from Table 3A.1.4, IPCC GPG-LULUCF 2003 ^{B06/} .
Use of nitrogen (N) fertiliser: deduction discount (tCO ₂ /kg)	0.005 tCO ₂ /kg of nitrogen (N) fertiliser	VVB confirms that the applied value has been obtained from the section 3.8.3 of the document "GS LUF_AR_Methodology-GHGs-emission-reduction-and-sequestration-methodology" which is valid and applicable.

4.13 Ex-ante estimation of SDG impact

Means of design certification	DR, OSV, I	
Findings	CL 01, 02 & 05 was raised, all of which has been satisfactorily closed	
Conclusion	As per the VPA-DD ^{02/} , VVB has assessed the compliance of section B.6 in line with GS VPA-DD ^{02/} template instructions as follows:	
	Sustainable Development Goals Targeted	Assessment of SDG Impact
	1- End poverty The net benefit of SDG 1 will be quantified as the number of employees with long-term employment contracts subject to social security contributions and wages above the national minimum wage of Colombia (who worked at least 3 years for the company), minus the number of employees in the baseline scenario.	VVB, based on the on-site inspection interviews ^{i-xxv/} and document review ^{02/} , confirms that an average of 2 jobs per year will be generated according to the conditions for the rest of the crediting period.
	8 - Decent work and economic growth The net benefit of SDG 8 will be quantified as the number of employees with i) fulfillment of labor rights, independently of the employment type (temporary, full-time or part-time), ii) assisting trainings in safe and security at work, iii) assisting trainings in other working-related relevant areas, and iv) with safety equipment appropriate for the specific working position generated as a result of the	VVB, based on the on-site inspection, interviews ^{i-xxv/} and document review ^{02/} , confirms that the project implementation will lead to generate employment promoting economic growth with up to 25 jobs for the crediting period.

	<p>project, minus the number in the baseline scenario</p>	
	<p>13- Climate Action The outcome for SDG 13 will be quantified as CO2 sequestration by applying the methodology “GS A/R GHG Emissions Reduction & Sequestration Methodology, version 2.0”. The net benefit is the difference between the quantified CO2 sequestration in the project scenario minus the quantified CO2 sequestration in the baseline situation.</p>	<p>Based on the review of section B.6.4 of VPA-DD^{02/} and CO₂ fixation spreadsheet^{03/}, VVB confirms that the estimated GHG removals from the project, calculated as 971,568 tCO₂e for 40 years with annual average 24,289 of tCO₂e/year^{03/} (excluding buffer) are appropriate and valid.</p> <p>Leakage: VVB, based on on-site inspection interviews and the letter provided “Leakage letter_Veraneo”, confirms that no leakage was caused by the project. The farm has been abandoned since 2011 and no livestock rearing has been done after that.</p> <p>Other emissions: The emissions from the use of nitrogen fertilisers has been accounted and deducted from the total estimated removals for the years of application i.e., 2023 till 2026. The deduction of 0.005tCO₂ per kg of nitrogen has been done as per the section 3.8.3 of the “Gold Standard Afforestation/Reforestation (A/R) GHG Emissions Reduction & Sequestration Methodology, v2.0”. Total deduction of 472 tCO₂e has been done which is valid and has been cross verified by the VVB in the provided ex-ante carbon calculation sheet^{03/}.</p>
	<p>15- Life on Land The net benefit of the SDG 15 will be quantified as: - the difference between target and baseline scenario for hectares (ha.): reforested/afforested and protected as forest conservation areas. - the increment on the number of fauna species based on a continuous biodiversity monitoring and/or biodiversity indexes</p>	<p>VVB, based on the on- site inspection interviews^{i-xxv/} and document^{02/} review, confirms that 1,069 ha will be afforested with the site adaptive five native and one non-native(adapted) tree species. Along with that the project is expected to increase the population of both amphibian and reptiles, increment in biodiversity and increment on the concurrence of IUCN Red List status species within the project area. Based on the provided biodiversity report^{29/}, VVB confirms that a total of 36 species including 14 species of amphibians and 22 species</p>

		of reptiles has been documented. The species has been classified as LC (least concern) and VU (vulnerable) according to the IUCN conservation status.																																																																																																																																					
	<p>VVB confirms that the ex-ante carbon estimations has been calculated following the Gold Standard Afforestation/Reforestation (A/R) GHG Emission Reduction & Sequestration Methodology, Version 2.0^{B01}. The detailed estimations have been reviewed from the document “Carbon fixation_COL01_v1.1”.</p>																																																																																																																																						
	<table border="1"> <thead> <tr> <th>Year</th> <th>Baseline (tCO2e/year)</th> <th>Project estimate</th> <th>Net benefit</th> </tr> </thead> <tbody> <tr><td>Year 1</td><td>26,088</td><td>24,466</td><td>-1,622</td></tr> <tr><td>Year 2</td><td>27</td><td>24,466</td><td>19,551</td></tr> <tr><td>Year 3</td><td>27</td><td>24,466</td><td>19,551</td></tr> <tr><td>Year 4</td><td>27</td><td>24,466</td><td>19,551</td></tr> <tr><td>Year 5</td><td>0</td><td>24,466</td><td>19,572</td></tr> <tr><td>Year 6</td><td>0</td><td>24,466</td><td>19,572</td></tr> <tr><td>Year 7</td><td>0</td><td>24,466</td><td>19,572</td></tr> <tr><td>Year 8</td><td>0</td><td>24,466</td><td>19,572</td></tr> <tr><td>Year 9</td><td>0</td><td>24,466</td><td>19,572</td></tr> <tr><td>Year 10</td><td>0</td><td>24,466</td><td>19,572</td></tr> <tr><td>Year 11</td><td>0</td><td>24,466</td><td>19,572</td></tr> <tr><td>Year 12</td><td>0</td><td>24,466</td><td>19,572</td></tr> <tr><td>Year 13</td><td>0</td><td>24,466</td><td>19,572</td></tr> <tr><td>Year 14</td><td>0</td><td>24,466</td><td>19,572</td></tr> <tr><td>Year 15</td><td>0</td><td>24,466</td><td>19,572</td></tr> <tr><td>Year 16</td><td>0</td><td>24,466</td><td>19,572</td></tr> <tr><td>Year 17</td><td>0</td><td>24,466</td><td>19,572</td></tr> <tr><td>Year 18</td><td>0</td><td>24,466</td><td>19,572</td></tr> <tr><td>Year 19</td><td>0</td><td>24,466</td><td>19,572</td></tr> <tr><td>Year 20</td><td>0</td><td>24,466</td><td>19,572</td></tr> <tr><td>Year 21</td><td>0</td><td>24,113</td><td>19,290</td></tr> <tr><td>Year 22</td><td>0</td><td>24,113</td><td>19,290</td></tr> <tr><td>Year 23</td><td>0</td><td>24,113</td><td>19,290</td></tr> <tr><td>Year 24</td><td>0</td><td>24,113</td><td>19,290</td></tr> <tr><td>Year 25</td><td>0</td><td>24,113</td><td>19,290</td></tr> <tr><td>Year 26</td><td>0</td><td>24,113</td><td>19,290</td></tr> <tr><td>Year 27</td><td>0</td><td>24,113</td><td>19,290</td></tr> <tr><td>Year 28</td><td>0</td><td>24,113</td><td>19,290</td></tr> <tr><td>Year 29</td><td>0</td><td>24,113</td><td>19,290</td></tr> <tr><td>Year 30</td><td>0</td><td>24,113</td><td>19,290</td></tr> <tr><td>Year 31</td><td>0</td><td>24,113</td><td>19,290</td></tr> <tr><td>Year 32</td><td>0</td><td>24,113</td><td>19,290</td></tr> </tbody> </table>			Year	Baseline (tCO2e/year)	Project estimate	Net benefit	Year 1	26,088	24,466	-1,622	Year 2	27	24,466	19,551	Year 3	27	24,466	19,551	Year 4	27	24,466	19,551	Year 5	0	24,466	19,572	Year 6	0	24,466	19,572	Year 7	0	24,466	19,572	Year 8	0	24,466	19,572	Year 9	0	24,466	19,572	Year 10	0	24,466	19,572	Year 11	0	24,466	19,572	Year 12	0	24,466	19,572	Year 13	0	24,466	19,572	Year 14	0	24,466	19,572	Year 15	0	24,466	19,572	Year 16	0	24,466	19,572	Year 17	0	24,466	19,572	Year 18	0	24,466	19,572	Year 19	0	24,466	19,572	Year 20	0	24,466	19,572	Year 21	0	24,113	19,290	Year 22	0	24,113	19,290	Year 23	0	24,113	19,290	Year 24	0	24,113	19,290	Year 25	0	24,113	19,290	Year 26	0	24,113	19,290	Year 27	0	24,113	19,290	Year 28	0	24,113	19,290	Year 29	0	24,113	19,290	Year 30	0	24,113	19,290	Year 31	0	24,113	19,290	Year 32	0	24,113	19,290
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Year 37	0	24,113	19,290
Year 38	0	24,113	19,290
Year 39	0	24,113	19,290
Year 40	0	24,113	19,290
Total	26,168	971,568	755,995
Total number of crediting years	40 years		
Estimated Annual Average over the crediting period	-	24,289	18,900

The baseline estimated includes the carbon stock in the existing grassland and shrub, and a discount due to the use of fertiliser.

VVB, during the on-site inspection interviews^{/i-xxv/}, has reviewed the shrub baseline inventory^{/02/} prepared by the CME to account the baseline shrubs in the eligible area. The sample plots were selected from a randomised population of all parcels of baseline shrub biomass plots and CME has sampled around 16 baseline shrub biomass plots with shrubs to reach to the desired statistical precision of 20%.

The approach is deemed acceptable, by the VVB, for the entire planting area of 1,069 ha.

VVB has checked the methodology^{/B03/} applied for the baseline inventory and found that this methodology is widely used in the region for inventory. VVB has reviewed the methodology^{/B03/} and found it robust based on its sectoral expertise. During the on-site inspection, the persons were interviewed, and found to be competent to perform the standardised process as per the applied methodology of inventory.

During the course of on-site inspection, VVB has performed its own measurements at 4 sample sites (where ground clearance did not take place) at the time of visit, and found the measurements were done accurately and no material discrepancy was found and thus CME's field measurements was acceptable to the VVB. Furthermore, VVB visited 12 reference regions (in the adjacent area having same climatic and edaphic conditions and pre-project land use scenario) to further verify the plausibility of values arrived for baseline shrubs as arrived from the inventory. The details of nearby sites visited as reference region are as follows:

1. La Revancha
2. El Tamboral
3. Melgar
4. Punta Hermosa
5. Moriche solo
6. Taparitas

The CME has considered only shrubs in the baseline inventory and discounted them as a part of baseline emission. An IPCC default² of 16.1 t.d.m ha⁻¹ has been used for discounting the removal of pastureland for the entire project area. Furthermore, the CME does not involve the removal of existing tree (from pre-project scenario) and hence, is not discounting the same. This approach is acceptable, as these standing trees will be tagged, as confirmed during the on-site inspection, and will not be a part of ex-post project verification (and measurements).

The CME has also provided a report of baseline inventory^{/23/} (with spread sheet) and the calculation of the same, 453.47 tCO₂e, was found correct and thus acceptable to the VVB. In summary, VVB confirms that CME has correctly calculated and considered baseline emission on the account of standing shrub.

The ex-ante calculation for AGB has been done through the allometric equations from variety of data sources (Chave 2005_1, Chave 2005_h, Chave 2014, Brown 1997, ICRAF, Brown 1989_dbh, Brown 1989_h), based on forest type “Tropical wet forest”, followed by outlier analysis for each species. The statistical precision test done after the outlier analysis confirms that the obtained AGB value is within the 20 % precision level as demonstrated in the carbon calculation spreadsheet^{/03/}.

VVB, based on the on-site inspection interviews^{/i-xxv/} and document review^{/02/03/}, confirms that the removal rate of 17.69 tCO₂e/ha/year is conservative and appropriate. This was validated based on the assumptions (such as plantation per hectare, considering planting design (spacing and other factors), mortality and not adding pioneer species, species specific wood densities and annual increment of different tree species and allometric equations used from various peer reviewed literature) taken in the ex-ante growth model. Furthermore, based on the review of literature study Bernel *et al.*, 2018^{B06/}, VVB has observed that the growth rate for broadleaf tree species for tropical humid climates falls in the range of 20-25 tCO₂/ha/yr (Figure 4). Furthermore, as mentioned in table 2 in the mentioned literature, for humid climatic region in South America, the removal rate for the first 20 years has been calculated as 18.8 tCO₂/ha/yr. In opinion of VVB, the value of carbon removal per hectare is plausible and thus acceptable.

Assessment of SOC

The present assessment justifies the selection of variables given in the “LUF AR Methodology Soil Carbon Tool” excel calculator for the determination of soil organic carbon matter (SOC): soil stratum (climatic region and soil type), and pre-project activities (land use, management and input).

Climatic region

According to the IPCC climatic zones, the project area is in a “tropical, wet” region. Thus, this was the climatic region selected in the “LUF AR Methodology Soil Carbon Tool” calculator, since it is the most appropriate

² [2006 IPCC Guidelines for National Greenhouse Gas Inventories, Table 6.4, Chapter 6, Grassland](#)

	<p>definition given the possible climatic regions in the excel tool. The area is characterized by an average annual precipitation of 2,724-2,341 mm, and average annual temperatures between 24.6 – 27.1 °C, and a dry season between 3 – 4 months¹.</p> <p>Soil type in the “LUF AR Methodology Soil Carbon Tool” calculator for soil types: • “LAC soils” were selected for a stratum covering 1,069 ha.</p> <p>Based on the soil type information obtained from ISRIC - World Soil Information (which can be displayed at soilgrids.org), the eligible project area is located in two different soil types (see Table 1). Acrisols and Ferralsols cover together the total farm eligible area of 1,202 ha.; these soil types are classified as “LAC soils” (see table 3 in “ar-am-tool-16-v1.1.0”, and IPCC default soil classes derived from the Harmonised World Soil Data Base). CME only account for 1,069 ha for calculations purposes since this is the estimated planting area (ha) based on the forest/non-forest assessment and preliminary determined through technical assessments conducted during the farm site visit and after discounting infrastructure, roads and a 20 m. fire break alongside the planting area. Therefore, the total eligible area estimated to be planted is 1,069 ha., and not the 1,202 ha. resulting from the “Forest/non-forest analysis report”.</p> <p>Based on the review of ex-ante carbon fixation spread sheet and SOC calculation spread sheet (in the template-403_V1.0_0.7_LUF_AR Methodology_Soil Carbon Tool_COL_v1) , it is confirmed that PP has provided sufficient justification for the application of AR-Tool 16 in assessing land degradation. PP has demonstrated land degradation in compliance to tool through direct visual field evidence of selected indicators of land degradation; the area being categorized as "moderately degraded". Furthermore, VVB confirms the calculation of SOC is correct and appropriate and the verified value of SOC is 0.33 tCO₂/hectare and 353 tCO₂/year for the entire area.</p> <p>In summary, VVB confirms that CME has correctly calculated and considered baseline emissions and Project emissions and in compliance with section 3.3 of applied methodology^{B01/}.</p>
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4.14 Monitoring plan

a. Data and parameters to be monitored

Means of design certification	DR, OSV, I		
Findings	--		
Conclusion			
	Data and parameters to be monitored	Value applied	VVB Assessment of Compliance
	SDG 1- End poverty/target 1.2		
	Number of employees with	The baseline scenario is	VVB, based on the on-site

	<p>long-term employment contracts subject to social security contributions and wages above the national minimum wage of Colombia (who worked at least 3 years for the company)</p>	<p>zero, as not jobs were created prior the implementation of the project activity. The net benefit is the difference between the target number of employees with long-term employment contracts, and the baseline scenario. The project value is 2. The baseline scenario is 0 (as no jobs were created prior the implementation of the project activity). See project assessment and estimated values on “430_V1.0_IQ_SDG-Impact-Tool_v1.1.xlsx”</p>	<p>inspection interviews^{/i-xxv/} and SDG impact tool, confirms that the average value of 2 employment per year is predicted for the crediting period. VVB has reviewed the supporting evidences and confirms that the project activity fulfills the goals of SDG 1^{/19/}.</p>
SDG 8 – Decent work and economic growth			
	<p>The outcome of SDG 8 will be quantified as the number of employees with: i) fulfillment of labor rights, independently of the employment type (temporary, full-time or parttime), ii) assisting trainings in safe and security at work, iii) assisting trainings in other working-related relevant areas, and iv) with safety equipment appropriate for the specific working position, generated as a result of the project</p>	<p>The baseline scenario is zero, as not jobs were created prior the implementation of the project activity. The net benefit is the difference between the target number of employees with safe and decent working conditions, disaggregated by gender and migrant status, generated as a result of the project, and the baseline number. Project values are medium/high (around 20) on the first year, and decrease until 2 at the end of the crediting period. See project assessment and estimated values on “430_V1.0_IQ_SDG-Impact-Tool_v1.1.xlsx” The baseline scenario is 0 (as no safe and decent jobs were created prior the implementation of the project activity).</p>	<p>VVB, based on the on-site inspection interviews^{/i-xxv/}, confirms that in the initial years around 25-20 jobs has been created due to more labour intensive work and will stabilize later to 2 jobs for the rest of crediting period. VVB has reviewed the supporting evidences and confirms that the project activity fulfills the goals of SDG 8^{/19/}.</p>
SDG 13 Climate Action / target 13.1			
	<p>Emission reductions / natural carbon removals</p>	<p>22.72 tCO₂e/ha/year</p>	<p>VVB, based on the on-site inspection interviews^{/i-xxv/} and</p>

<p>through reforestation of former pastureland measured in t CO₂e/ha/year</p>		<p>document review^{/02/03/}, confirms that a total estimation removal of 755,995 tCO₂e (including buffer) and an average annual removal of 18,900 tCO₂e/year (including buffer) for 40 year of crediting period with removal rate of 17.68 tCO₂e/ha/year is conservative and appropriate. The assessment for the same can be referred from section 4.13 of this report.</p>
<p>Use of nitrogen (N) fertilizer (tCO₂e/year)</p>	<p>Estimation of emissions base on the following planned application: 2023: 391 tCO₂ 2024: 27 tCO₂ 2025: 27 tCO₂ 2026: 27 tCO₂</p>	<p>VVB has reviewed the ex-ante carbon calculation sheet and confirms that the calculated value for each year of application is valid. The assessment for the same can be referred from section 4.13 of this report.</p>
SDG 15 Life on Land / target 15.2		
<p>Hectares (ha) of degraded pastureland reforested with predominantly native tree species.</p>	<p>1,069 ha afforested/reforested</p>	<p>VVB, based on the on-site inspection interviews^{/i-xxx/} and review of KML files^{/15/} provided, confirms that 1,069 ha of planting area will be planted under the VPA with site adaptive native and non-native tree species.</p>
SDG 15 Life on Land / target 15.5		
<p>Number of herpetofauna, and the number of threatened species of herpetofauna present in the project area.</p>	<p>The inventory of the herpetofauna for the baseline scenario resulted in a total of 36 amphibian and reptile species recorded during the survey period in the five project within the savannah and forest project areas: 18 species were found in the savannah, and 23 species in the remanent forest areas. Only 5 species were found in both, savannah and forest areas. (See "Biodiversity monitoring Colombia.pdf")</p>	<p>The field survey data has been assessed from biodiversity report^{/29/} and VVB has further reviewed the "Biodiversity contract Seckenber COL"^{/08/19/} demonstrating that the biodiversity monitoring has been conducted for the VPA areas in Colombia and will be conducted regularly after project implementation.</p>

	See project assessment and estimated values on "430_V1.0_IQ_SDG-Impact-Tool_v1.1.xlsx"	
Stakeholder mitigation measures		
Invest in a fire management plan that includes training for workers and the community to be able to control the fire and mitigate the danger.	-	As per the VPA-DD ^{/02/} , the project will employ a forest ranger in place that can quickly react to a potential fire. A training on how to react in the event of a forest fire will be given. This has been further verified from review of forest management plan ^{/22/} and SOPs ^{/18/} .

b. Sampling plan

Means of design certification	DR, OSV, I
Findings	--
Conclusion	<p>Based on the review of the evidence, the forest inventory guideline^{/07/} includes the following points for establishment of new permanent plots:</p> <ol style="list-style-type: none"> Stratification Shape and size of plots Amount of permanent sample plots Location of permanent sample plots Establishment of permanent plots in the field <p>Inventory data collection will be done every 4-5 years and as a minimum prior to each performance certification.</p> <p>a) Stratification The stratification will be done based on the planting design where one stratum consists of an area with homogenous patterns mentioned in the Forest Management Plan. Pre-stratification will be carried out and 6 sample plots per stratum will be implemented to give an indication about the standard deviation within the stratum.</p> <p>b) Shape and size of plots Circular plots will be used for the given project. Data and analyses at the plot level (616m²) are extrapolated to the area of a full hectare to produce carbon stock estimates.</p> <p>c) Amount of permanent sample plots The following formula will be used to determine the amount of sample plots per stratum when new permanent sample plots are established:</p> $n = (N * s)^2 / N^2 * E^2 / t^2 + N * s^2$ <p>Where, E= Allowable error, t= Confidence level N= Number of sampling plots for a certain stratum. s= Standard deviation of a stratum</p> <p>d) Location of permanent sample plots For the location of new permanent sample plots, either a stratified random</p>

	<p>sampling design or a stratified systematic sampling design will be applied. In the first one, the geographic coordinates for each sample plot in a random sample may be selected with a random number generator with the allowable coordinates restricted to the sampled population. In the latter design, each stratum is considered an independent sub-population, and in each strata plots are allocated systematically in a grid; strata might differ in the spatial allocation of plots depending on the statistics of the sub-population.</p> <p>e) Establishment of permanent plots in the field The following is a step-by-step description on how to stablish permanent plots in the field: (1) The field staff being responsible for the data collection goes on the field to the plot (with unique plot-ID) to be established. It uses the digital map at his smartphone (e.g. using Avenza Systems Inc. smartphone application) and if necessary, a GPS device to accurately locate the center of the plot. (2) On arrival at the respective plot, verify once again the GPS coordinates of the center of the permanent sample plot (PPM). [Recommendation: Permanent numbering of the plots with their unique plot-Id would be highly recommended, e.g., with numbered aluminum signs, a tube or a metal pole] (3) Mark the identification (ID) number of the plot, and the center of the plot. (4) Use a rope or any other appropriate means to mark the boundary of the rectangular plot. (5) Where sample plots are located on a slope that is >10% the plot size measurements have to be adapted (see details to correct slope on Annex I: Detailed protocol of field measurements). (6) Mark all the trees inside the plot with a unique identification (ID) and permanently. [Recommendation: Permanent numbering of the trees with their unique Id would be highly recommended, e.g., with numbered aluminum signs, a tube or a metal pole]</p> <p>Overall, VVB confirms that the sampling plan has been appropriately defined in the document "Forest Inventory Guideline"^{/07/} which is valid and acceptable.</p>
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C. Other elements of monitoring plan

Means of design certification	DR, OSV, I
Findings	--
Conclusion	<p>Based on the review of section B.7.3 of the VPA-DD^{/02/}, in compliance with paragraph 5.11.6 of the PoA requirements and procedures^{/B01/}, the forest and monitoring plan:</p> <ul style="list-style-type: none"> • Includes the monitoring of the forest establishment. • Describes potential risks and mitigation measurements including measures to minimize leakage. • Includes SOPs and Q/A for monitoring and control. <p>There is no harvesting planned for project activity. Since it consists of a conservation forest. Some pruning and thinning might be possible.</p> <p>VVB confirms that the forest management plan^{/22/} includes the monitoring of the forest establishment, describes potential risks, mitigation measurements, includes SOPs and Q/A for monitoring and control and is in compliance with paragraph 5.11.6 of the PoA requirements and procedures^{/B01/}.</p>

4.15 Duration and crediting period

Means of design certification	DR, OSV, I
Findings	CAR 05 was raised, which has been satisfactorily closed

Conclusion	As per section C.2 of the VPA-DD ^{/02/} , the crediting period of the project is of 40 years starting from 02/05/2023 to 01/05/2063. The start date has been confirmed by VVB after reviewing the evidence for start date and confirms that the first planting activity for the VPA has been conducted on 02 nd May 2023. Furthermore, the proof of project lifetime ^{/27/} has also been provided by CME.
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4.16 Safeguarding principles and gender sensitive assessment including assessment of appendix 1 of VPA-DD

a. Safeguarding Principles Assessment

Means of design certification	DR, OSV, I
Findings	--
Conclusion	The CME has done the safeguarding principles assessment analysis and resent assessment in Appendix 1 of GS VPA-DD ^{/02/} . The assessment has been performed in accordance with requirements prescribed in the GS4GG Principles & Requirements, Version 1.2 ^{/B01/} & Safeguarding Principles & Requirements, Version 1.2 ^{/B01/} . The detailed assessment of safeguarding principle is provided in Appendix 2.

b. Safeguarding Principles that will be monitored

Means of design certification	DR, OSV, I	
Findings	--	
Conclusion	Section D.1 of the VPA-DD ^{/02/} has been assessed by the VVB in line with Gold Standard for The Global Goals Gender Equality Requirements & Guidelines, Version 1.1 ^{/B01/} and GS template instructions.	
	Principles	Mitigation Measure added to Monitoring Plan
	Endangered species	The number of herpetofauna, and the number of threatened species of herpetofauna present in the project is monitored.
	VVB confirms, based on document review ^{/02/08/19/} and on-site inspection interviews ^{/i-xxv/} , that only one of the principle is relevant to the project, and needs to be monitored. Furthermore, VVB, based on the assessment questions and taking into account the project context, confirms that no expert stakeholder opinion is needed.	

c. Assessment that project complies with GS4GG Gender Sensitive requirements.

Means of design certification	DR, OSV, I
Findings	--

Conclusion	Section D.2 of the GS VPA-DD ^{01/} has been assessed by the VVB in line with Gold Standard for The Global Goals Gender Equality Requirements & Guidelines, Version 1.1/ ^{B01/} and GS template instructions:	
	GS4GG Gender Sensitive requirement Questions	Assessment of Compliance
	Question 1 – Explain how the project reflects the key issues and requirements of Gender Sensitive design and implementation as outlined in the Gender Policy?	Based on the on-site inspection interviews ^{/i-xxv/} and desk review ^{/02/10/} , VVB confirms that the project takes into account gender roles and the abilities of women and men to participate in the decision/designs of the project activities.
	Question 2 – Explain how the project aligns with existing country policies, strategies and best practices	VVB, during the on-site inspection interviews ^{/i-xxv/} , observed the project activity doesn't endorse any form of discrimination based on gender. The project activity doesn't endorse any form of discrimination based on gender. Colombia has ratified ILO Conventions 100 (Equal Remuneration Convention) and 111 (Discrimination (employment and occupation) Convention) ^{/B06/} . Women can participate to the project and will therefore not put at risk women's or any other marginalized groups access to or control of resources, entitlements and benefits.
	Question 3 – Is an Expert required for the Gender Safeguarding Principles & Requirements?	Based on the on-site observations and interviews ^{/i-xxv/} , VVB confirms that no expert is needed since Gender is adequately addressed in the Safeguarding principles assessment.
	Question 4 – Is an Expert required to assist with Gender issues at the Stakeholder Consultation?	Based on the on-site observations and interviews ^{/i-xxv/} , VVB confirms that no expert is needed since the consultations did not present any particular challenge from a Gender perspective.

4.17 Stakeholder consultation

a. Local stakeholder consultation

Means of design certification	DR, OSV, I
Findings	--

Conclusion	In compliance to GS4GG Stakeholder Consultation and Engagement Requirements Version 2.1 ^{/B03/} , VVB has conducted the assessment of section E of GS VPA-DD ^{/02/} as follows:	
	GS4GG Stakeholder Consultation and Engagement Requirements^{/B03/}	Assessment of Compliance
	A separate stakeholder consultation shall be organized for proposed project.	Based on document review ^{/10/} , the stakeholder consultation has been conducted on 15/04/2023 physically with the stakeholders and on 21/04/2023 in online mode. This has been confirmed by reviewing the supporting evidence ^{/10/} provided by CME and through on-site interviews.
	The CME shall submit the stakeholder consultation report for real case project at the time of first submission (i.e., Preliminary review of real case project).	Based on document review ^{/02/10/} and on-site interviews ^{/i-xxv/} , VVB confirms that the CME has provided the stakeholder consultation report which is valid and in compliance with the GS4GG Stakeholder Consultation and Engagement requirements ^{/B03/} .
	The Gold Standard reserves the right to enforce new stakeholder consultation(s) for regular projects	Not Applicable
	A grievance mechanism shall be established and made available for project activity.	VVB, based on the review of section E.2 of the VPA-DD ^{/02/} , confirms that the grievance mechanism has been appropriately defined. The detailed description is provided in section 4.16 (c) of this report.

b. Summary of stakeholder mitigation measures

Means of design certification	DR, OSV, I
Findings	--
Conclusion	The mitigations measures has been developed against any natural forest fire. During the on-site inspection/interviews ^{/i-xxv/} , it has been confirmed that the CME is in contact with the community and governmental institutions in order to respect the existing roads, and before creating any main access road. They has also provided courses about the local flora and fauna to the residents of El Placer/El Tuparro. CME has also evaluated the possibility of setting up a weather station that the community could benefit from and, including in the monitoring of biodiversity of mammals and birds, additionally to the

	herpetofauna.
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C. Continuous input / grievance mechanism

Means of design certification	DR, OSV, I
Findings	--
Conclusion	<p>VVB, based on on-site inspection interviews^{/i-xxv/} and document review^{/02/10/20/}, confirms that the continuous input/Grievance expression process box has been kept at El Placer/El Tuparro Community Center and BaumInvest house in the farm Veraneo, nearby El Placer/El Tuparro village (Cumaribo, Vichada).</p> <p>Furthermore, as per the interviews^{/i-xxv/}, design certification team confirms that there is an effective continuous consultation/grievancemechanism process so any stakeholders can access, approach and provide feedback to BaumInvest Colombia SAS and BaumInvest Latinoamerica if they want, via emails and phone number. This is deemed appropriate and acceptable to the design certification team.</p> <p>Based on the above assessment, VVB confirms that the LUF input & grievance mechanism have been appropriately demonstrated in line with ANNEX D of GS4GG LUF Activity requirements v1.2.1^{/B02/} and Section 4.1.34 of GS4GG Principles and Requirements v1.2^{/B01/}.</p>

4.18 Eligibility and inclusion criteria for VPAs inclusion

Means of design certification	DR, OSV, I								
Findings	CAR 07 has been raised, which is now satisfactorily closed								
Conclusion	<p>In line with section A.3 of the PoA-DD, CME has demonstrated eligibility as per section 3.1.1 of GS4GG Principles & Requirements v2.0^{/B01/} and 2.1.1 of GS4GG Land Use & Forests Requirements^{/B02/}. VVB has conducted the assessment of compliance for eligibility and inclusion criteria for VPA inclusion as follows</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="background-color: #00A69F; color: white; text-align: center;">As per section 4.12 of GS PoA Requirements and Procedures v2.0^{/B01/}</th> </tr> <tr> <th style="background-color: #00A69F; color: white;">Requirement</th> <th style="background-color: #00A69F; color: white;">VVB Assessment of compliance</th> </tr> </thead> <tbody> <tr> <td>Geographical boundaries- Geographical boundaries of VPAs consistent with the geographical boundary of the PoA.</td> <td>In line with section F of the VPA-DD^{/02/}, the project is set in Colombia which is consistent with the PoA geographical boundary. This has been confirmed by VVB after reviewing section A.2 of the PoA-DD^{/01/}. The VPA is located in the farm Veraneo under Department of Vichada located in the eastern plains of Colombia. This has been further verified by the VVB by reviewing the shapefiles for the VPA boundary.</td> </tr> <tr> <td>Double counting – Conditions to avoid double counting of Impacts</td> <td>Based on document review^{/15/16/} and on-site inspection/interviews^{/i-xxv/},</td> </tr> </tbody> </table>	As per section 4.12 of GS PoA Requirements and Procedures v2.0 ^{/B01/}		Requirement	VVB Assessment of compliance	Geographical boundaries- Geographical boundaries of VPAs consistent with the geographical boundary of the PoA.	In line with section F of the VPA-DD ^{/02/} , the project is set in Colombia which is consistent with the PoA geographical boundary. This has been confirmed by VVB after reviewing section A.2 of the PoA-DD ^{/01/} . The VPA is located in the farm Veraneo under Department of Vichada located in the eastern plains of Colombia. This has been further verified by the VVB by reviewing the shapefiles for the VPA boundary.	Double counting – Conditions to avoid double counting of Impacts	Based on document review ^{/15/16/} and on-site inspection/interviews ^{/i-xxv/} ,
As per section 4.12 of GS PoA Requirements and Procedures v2.0 ^{/B01/}									
Requirement	VVB Assessment of compliance								
Geographical boundaries- Geographical boundaries of VPAs consistent with the geographical boundary of the PoA.	In line with section F of the VPA-DD ^{/02/} , the project is set in Colombia which is consistent with the PoA geographical boundary. This has been confirmed by VVB after reviewing section A.2 of the PoA-DD ^{/01/} . The VPA is located in the farm Veraneo under Department of Vichada located in the eastern plains of Colombia. This has been further verified by the VVB by reviewing the shapefiles for the VPA boundary.								
Double counting – Conditions to avoid double counting of Impacts	Based on document review ^{/15/16/} and on-site inspection/interviews ^{/i-xxv/} ,								

		<p>VVB confirms the name for the farm included in the VPA has been provided along with the detailed boundary map^{/16/} and KML file^{/15/}. Furthermore, CME has full and uncontested legal ownership of any products, including GSVERs, generated under Gold Standard certification.</p>
	<p>Exclusiveness of VPA - The VPA shall not previously be registered as a project activity or included as a VPA in any other registered PoA or deregistered as a VPA of a PoA.</p>	<p>Based on the review of the VPA-DD^{/02/} and the evidence^{/17/} provided, VVB confirms that the project has not been registered under any other GHG programs and is not seeking registration under any other GHG programs. This has been further confirmed by the VVB checking on other registries (CDM/GS/GCC/Plan Vivo)^{/B05/}.</p>
	<p>Start date- The project start date shall be the earliest date when the first trees are planted. The start date of any proposed VPA will be on or after the start date of the PoA.</p>	<p>The start date of the VPA is 02/05/2023^{/02/06/} which is after the start date of PoA "11/05/2022"^{/01/}. The start date has been verified by VVB after reviewing the acknowledgement letter^{/06/}, confirming that the first planting activity has been carried out from the start date.</p>
	<p>Applicability of the methodologies- The only methodology used for VPAs under the PoA is "LUF_AR-Methodology-GHG-emission-reduction and-Sequestration-Methodology". The tool "LUF AR Methodology Soil Carbon Tool" is used in order to calculate the Soil Organic Carbon</p>	<p>Based on the assessment in section 4.9 (b) of this report, VVB confirms that the methodologies applied are valid and in compliance.</p>
	<p>Conditions to ensure that VPA meet the requirements for demonstration of additionality- For demonstration of additionality, one of the two options will be applied: Option 1: Latest version of A/R Methodological tool "Combined tool to identify the baseline scenario and demonstrate additionality in A/R CDM project activities Option 2: Latest version of Positive list (as per 3.1.16, (b) of the Land Use & Forests Activity Requirements).</p>	<p>Based on document review^{/01/02/} and on-site inspection/interviews^{/i-xxv/}, VVB confirms that the VPA additionality has been appropriately demonstrated in section B.5 of the VPA- DD^{/02/}. Refer to section 4.11 of this report for assessment of Additionality.</p>
	<p>Conditions to ensure no diversion of official development assistance- Conditions to ensure no diversion of official development assistance Affirmation that funding from Annex I Parties, if any, does not result in a diversion of official development</p>	<p>Based on the review of Signed ODA Declaration Form^{/26/}, VVB confirms that there is no diversion of official development assistance.</p>

	assistance	
	Conditions related to sampling requirements for the PoA- Any VPA will follow the sampling requirements for forest inventories described in the LUF_AR-Methodology- GHGs Emission Reduction & Sequestration Methodology	Based on the review of Forest Inventory Guidelines ^{/18/} , VVB confirms that the sampling requirements are in compliance with applied GS methodology, LUF_AR-Methodology- GHGs Emission Reduction & Sequestration Methodology ^{/B01/} and relevant tools ^{/B04/} .
	Scale of the VPA Conditions to ensure that VPAs that will be included meet the small-scale or microscale thresholds and remain within those thresholds throughout the crediting period - Any VPA following the smallholder or microscale scheme will follow the requirements for LUF Smallholder & Microscale Projects as outlined in Annex B of the AR LUF Activity Requirements	Not Applicable since the VPA is large scale (> 16,000 tCO ₂ e/year) ^{/02/03/} .
	Conditions to confirm that technologies in VPAs are eligible: <ul style="list-style-type: none"> • Can include planting trees • Can include single-species plantations • Can apply all silvicultural systems, e.g. conservation forests (no use of timber); forests with selective harvesting; rotation forestry • All projects can include agriculture (agroforestry) or pasture (silvopasture) activities 	Based on the on-site inspection interviews ^{/i-xxv/} and document review ^{/02/03/} , VVB confirms that the VPA includes planting of site-adaptive 5 native and 1 non-native(adapted) tree species creating a conservation forest with no use of timber.
	Conditions to be met by each VPA regarding SDG outcomes assessment SDG outcomes assessment- SDG outcomes, and the methods of monitoring these outcomes, are defined in the VPA-DD section B.6. The option a) of paragraph 5.6.2 of the PoA requirements and procedures is chosen.	As per VPA-DD ^{/02/} , the option a) of paragraph 5.6.2 of the PoA requirements and procedures ^{/B01/} is chosen. Based on document review ^{/02/} VVB confirms that the VPA-DD ^{/02/} details on SDG outcomes in section B.6. and in section B.7. the details on how to monitor the SDGs. Refer to section 4.14 of this report for assessment of SDG impact and outcomes.
Conditions to be met by each VPA regarding safeguarding principles- Summary of Safeguarding Principles, and the methods of monitoring these principles, are	Based on the review of Appendix 1 of the VPA-DD ^{/02/} , VVB conducted assessment of the Safeguarding Principles in APPENDIX 2 of this report and confirms that this	

	<p>defined in the VPA-DD Section D.1. The option a) of paragraph 5.5.2 of the PoA requirements and procedures is chosen.</p>	<p>assessment has been done by the CME.</p>
	<p>Conditions to be met for retroactive VPAs - Retroactive VPAs shall submit the required documents to Gold Standard within five years of its start date (time of first submission).</p>	<p>Not applicable since the project is a regular project and not a retroactive project.</p>
	<p>Conditions to ensure that VPA meets general eligibility criteria- Conditions to ensure that VPA meets general eligibility criteria as per section 3.1.1 of GS4GG Principles & Requirements and general eligibility criteria as per section 2.1.1 of GS4GG Land Use & Forests Requirements</p>	<p>VVB, based on review of section A.3 of the PoA-DD^{01/} and section A.1.1 of the VPA-DD^{02/}, confirms that the VPA meets the general eligibility criteria as per section 2.1.1 of GS4GG Land Use & forests requirements. Refer to section 4.3 of this report.</p>
	<p>Conditions to ensure that VPA follows the guidelines to conduct a spatial forest/non-forest assessment- Every VPA to be included under the PoA shall not meet the definition of forest 10 years before project start date and at project start date. In the case that the eligible area has been deforested during the last 10 years prior to the project start date, the VPA implementer shall provide evidence that the deforestation activity has not taken place with an intention to implement project activities that generate GS VERs. The Guidelines as per Annex C of the Land Use & Forests Activity Requirements should be followed.</p>	<p>The spatial forest/non-forest report^{11/} has been provided by CME. Based on the review of report, VVB confirms that the VPA follow the guidelines as per Annex C of the Land Use & Forests activity requirement v1.2.1^{B02/}.</p>
	<p>Conditions on crediting period- Every VPA shall make sure that the crediting period of the VPA shall not exceed the end of the duration of the PoA, which is for forestry PoAs 50 years</p>	<p>As per section D.2 of the PoA-DD^{01/}, the total duration of proposed PoA is 50 years. The crediting period as per the section C.2.2 of the VPA-DD^{02/} is 40 years which does not exceed the end of the duration of the PoA.</p>
	<p>Conditions related to stakeholder consultation- A local stakeholder consultation (LSC) following the Stakeholder Consultation and Engagement Requirements has to be carried out for each VPA or A group of VPAs in case that the applicability requirements included in paragraph 5.7.3. of the PoA Requirements are complied with.</p>	<p>VVB, based on the review of the Stakeholder consultation report^{10/} provided for VPA-DD^{02/}, confirms that the LSC has been carried out for all the group of VPAs to be included which is in compliance with paragraph 5.7.3 of the PoA requirements^{B01/}.</p>
	<p>Conditions to specify the approach to address non-permanence-</p>	<p>Refer to section 4.20 of this report for detailed assessment.</p>

	<p>Every VPA shall outline in the Land Use & Forests Risks & Capacities Guideline the non-permanence approach.</p>	
	<p>Approach chosen for VVB site-visits in view of inclusion of future regular VPAs- A validation on-site visit will be conducted by the VVB for each VPA, unless GS requirements allow an exception of a VVB site visit or a deviation request has been approved by GS.</p>	<p>VVB confirms that the on-site inspection has been carried out from 8 – 11th July 2023.</p>
	<p>Conditions to ensure a standard operational procedure (SOP) for managing the input and grievance mechanism- Every VPA shall adhere to the SOP for managing the input and grievance mechanism outline in the PoA Management System Manual, or describe in detail any necessary deviation of the SOP to better adjust to the specific VPA conditions.</p>	<p>CME has provided "SOP_Continuous Input & Grievance Mechanism v1.0"^{20/} document demonstrating that the VPA will follow the SOP which is deemed valid and appropriate by VVB. This has been further confirmed during the on-site interviews.</p>
	<p>Conditions to ensure the systematic description of the specific design of the VPA- Every VPA shall describe, as per section 5.2.2 of the Programme of Activity Requirements:</p> <ol style="list-style-type: none"> a) the present environmental conditions of the area planned for the Forestry VPA, including the climate, hydrology, soils and ecosystems b) Describe the presence, if any, of rare and endangered species and their habitats c) Describe the species and varieties selected for the Forestry VPA d) Describe the measures and know-how that will be transferred to the host Party, if applicable e) Describe or list the legal title(s) to the land, current land tenure and rights enabling determination of the owner of the GS VERs to be issued for the Forestry and AGR VPAs. 	<p>VVB confirms that the systematic description of the specific design of the VPA has been provided in the section A of the VPA-DD^{02/}. Refer to section 4.6 of this report.</p>
<p>Based on the above assessment, VVB confirms that section F of the VPA-DD^{02/} complies with the section A.3 of the PoA-DD^{01/} and section 3.1.1 of GS4GG Principles & Requirements^{B01/} and 2.1.1 of GS4GG Land Use & Forests Requirements^{B02/}</p>		

4.19 LUF Additional Information

Means of design certification	DR, OSV, I
Findings	--
Conclusion	<p>As per APPENDIX 3 of the VPA-DD^{/02/}, the following additional information has been provided by the BaumInvest AG and further assessed by the VVB:</p> <p>Risk of change to the Project Area and activities during Project Certification Period: Project Area: The risk of change to the project area is very low as the CME/VPA Implementer holds uncontested legal land titles for the areas^{/13/14/}.</p> <p>Project activities: CME has sufficient funding^{/25/26/} for the implementation of the project due to which the risks of change to the project activities is described as low. VVB, during the on-site inspection and interviews has assessed the risks of change to the project area and activities during project certification period.</p> <p>Land-use history and current status of Project Area: Based on the spatial forest/non forest assessment^{/11/}, the land use from 2011 to the present is abandoned grassland which is maintained through recurrent fires to keep the economic value of the farm. The current land cover is grassland with scattered shrubs and solitary trees.</p> <p>The project area has been used exclusively as grassland for extensive cattle ranching with the purpose of meat production (from 1992 to 2011).</p> <p>Socio-Economic history: Subsistence farming of traditional crops such as cacao, banana and sugarcane have been worked by the farmers and indigenous groups. Extensive livestock farming was the predominant land use activity which exerts strong pressure on the ecosystems of the region, which induces deforestation and burning for the establishment of illicit crops and the establishment of pastures for extensive cattle farming.</p> <p>Forest management applied (past and future) The forest management plan to be applied has been provided by the CME. The management applied will consist of: land preparation, tree nursery, planting, replanting, continuous weed and pest control to ensure the survival of the seedlings and the success of the reforestation. Further project activities tend to prevent illegal logging and other disturbances of the new established forest and adjacent old-growth and secondary forest remnants within the project area.</p> <p>Forest characteristics (including main tree species planted) The planting design includes planting of 5 native and 1 non-native tree species. The tree species are planted in a mixed planting design with initial density of 841 trees/ha. The spacing implemented between the “heliofitas efimeras and “heliofitas durables” is 4 by 4m and between the “heliofitas efimeras and heliofitas durables and esciofitas” species is 4 by 2m. The list of tree species is provided in section 4.6 of this report.</p>

	<p>Main social impacts (risks and benefits)</p> <p>The uncontested land title ownership belongs to the CME^{/13/14/} which leads to no negative social impacts or risks of the proposed VPA. However, the project activity provides employment for local population who are also subjected to any social insurance contributions and accident assurances. VVB confirms there are no risks associated of social impacts to the local population.</p>
	<p>Main environmental impacts (risks and benefits)</p> <p>The VPA is an afforestation/reforestation project aiming to create a diverse secondary forest in the mid- and long-term. The areas serve as habitat and biological corridors for many rare and endangered wildlife species of the Orinoco region- particularly since the project area is close to the Tuparro National Park. The reforestation of fallow and grassland contributes to protect water catchment areas and improve water quality. VVB confirms that the project activity leads to improving the environment with providing benefits to the local community and wildlife.</p>
	<p>Financial structure:</p> <p>The project is financed by the CME BaumInvest AG.</p>
	<p>Infrastructure (roads/houses):</p> <p>CME has provided appropriate shapefiles^{/15/} for the VPA demonstrating the infrastructure within the project area. VVB confirms that the shapefiles^{/15/} provided are valid and clearly demonstrate the infrastructure within the project area.</p>
	<p>Waterbodies</p> <p>CME has provided appropriate shapefiles^{/15/} for the VPA demonstrating the waterbodies within the project area. VVB confirms that the shapefiles^{/15/} provided are valid and clearly demonstrate the water bodies within the project area.</p>
	<p>Sites with special significance for indigenous people and local communities - resulting from the Stakeholder Consultation:</p> <p>There is no site with special significance for local communities identified during the Local Stakeholder consultation^{/10/}.</p>
	<p>Where indigenous people and local communities are situated</p> <p>There are no indigenous people situated within the project area. The local communities are situated nearby the project area in following locations:</p> <ul style="list-style-type: none"> • El Placer/El Tuparro • Palmarito • Chaparral
	<p>Where indigenous people and local communities have legal rights, customary rights or sites with special cultural, ecological, economic, religious or spiritual significance:</p> <p>There are no sites with legal rights, customary rights or rights with special cultural, economic, religious or spiritual significance other than the forests which have a certain ecological significance.</p>

4.20 LUF Risk and Capacities

Means of design	DR, OSV, I
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certification							
Findings	--						
Conclusion	<p>As per GS Risks & Capacities Guideline for 'Land Use & Forest' projects, VVB has conducted the assessment of LUF Risks and Capacities as follows:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%; background-color: #ADD8E6;">Risk and Capacities</th> <th style="background-color: #ADD8E6;">Assessment of Risks</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="background-color: #D3D3D3;">1. Natural Disturbance</td> </tr> <tr> <td style="vertical-align: top;"> 1.1 Fire Damage </td> <td style="vertical-align: top;"> <p>Probability of the risk</p> <p>As per the Risk and Capacities tool^{/05/}, ^{/05/}, High (Score 3) has been considered as the Event is expected to occur once or more in 10 years.</p> <p>During on-site inspection/interviews^{/i-xxv/}, VVB has been informed about the significant likelihood of fires in the project area is quite high. The local climate is characterized by seasonal rainfall, with an average annual precipitation ranging from 2,341 to 2,724 mm. There is also a dry season that typically lasts for three to four months, with the driest months being December and March, which experience 2-10 rainy days. These conditions are further exacerbated by strong northeast winds that commonly occur during this time of year. Consequently, the probability of fires occurring and spreading is highest during these months.</p> <p>It is important to note that the majority of fires in the savannas of the eastern plains of Colombia are caused by human activities. The region has a customary practice of anthropogenic burning of grasses during the dry season. VVB has also cross-verified this information with</p> <p>1)https://es.climate-data.org/america-del-sur/colombia/vichada/la-primavera-49978/</p> <p>2)https://es.climate-data.org/america-del-sur/colombia/vichada/puerto-carreno-3822/</p> <p>Impact of the risk</p> <p>As per the Risk and Capacities tool^{/05/}, Medium (Score 2) has been considered as the Event is expected to harm the products / greenhouse gas benefits, but do not lead to full destruction, AND Products / greenhouse gas benefits are expected to recover without intervention in less than 5 years based on the current levels. But with mitigation measures the corrected score has been revised to low (score 1).</p> <p>Based on the on-site interviews^{/i-xxv/}, VVB confirms that the planted forest is not at risk of complete destruction by wildfires due to the presence of natural fire breakers such as creeks with gallery forests. These naturally occurring barriers help to segregate the planting areas</p> </td> </tr> </tbody> </table>	Risk and Capacities	Assessment of Risks	1. Natural Disturbance		1.1 Fire Damage	<p>Probability of the risk</p> <p>As per the Risk and Capacities tool^{/05/}, ^{/05/}, High (Score 3) has been considered as the Event is expected to occur once or more in 10 years.</p> <p>During on-site inspection/interviews^{/i-xxv/}, VVB has been informed about the significant likelihood of fires in the project area is quite high. The local climate is characterized by seasonal rainfall, with an average annual precipitation ranging from 2,341 to 2,724 mm. There is also a dry season that typically lasts for three to four months, with the driest months being December and March, which experience 2-10 rainy days. These conditions are further exacerbated by strong northeast winds that commonly occur during this time of year. Consequently, the probability of fires occurring and spreading is highest during these months.</p> <p>It is important to note that the majority of fires in the savannas of the eastern plains of Colombia are caused by human activities. The region has a customary practice of anthropogenic burning of grasses during the dry season. VVB has also cross-verified this information with</p> <p>1)https://es.climate-data.org/america-del-sur/colombia/vichada/la-primavera-49978/</p> <p>2)https://es.climate-data.org/america-del-sur/colombia/vichada/puerto-carreno-3822/</p> <p>Impact of the risk</p> <p>As per the Risk and Capacities tool^{/05/}, Medium (Score 2) has been considered as the Event is expected to harm the products / greenhouse gas benefits, but do not lead to full destruction, AND Products / greenhouse gas benefits are expected to recover without intervention in less than 5 years based on the current levels. But with mitigation measures the corrected score has been revised to low (score 1).</p> <p>Based on the on-site interviews^{/i-xxv/}, VVB confirms that the planted forest is not at risk of complete destruction by wildfires due to the presence of natural fire breakers such as creeks with gallery forests. These naturally occurring barriers help to segregate the planting areas</p>
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	<p>and mitigate the spread of fires. However, it is important to note that grass fires pose a significant danger to young trees. Fortunately, as the trees grow and mature over the initial few years, they become more resilient and capable of withstanding most of these fires.</p> <p>Moreover, the growing vegetation of the forest itself acts as a protective shield, preventing excessive drying and reducing the likelihood of fire propagation. This protective effect is further demonstrated by the presence of natural gallery forests in the area, which serve as evidence of how the existing forest vegetation acts as a barrier against severe drying and minimizes the risk of fire spreading. This shall be further verified during the first performance certification when the project is implemented.</p> <p>VVB has verified the evidence provided confirms that the score for impact of fire risk is appropriate and valid.</p> <p>Scale of the risk As per the Risk and Capacities tool^{05/}, Medium (Score 2) has been considered because the event is expected to affect between 5 % and 50 % of the project area.</p> <p>Mitigation Measure As per the Risk and Capacities tool^{05/}, VVB has confirmed, through the "Forest Fire Manual" included in the Forest Management Plan, that the project has implemented effective mitigation measures to prevent the risk of wildfires. A comprehensive fire control plan is in place, which includes the establishment and regular maintenance of firebreaks. These firebreaks consist of cleared vegetation strips and utilize both natural firebreaks, such as creeks and gallery forests, along the project's boundaries and within its area.</p> <p>To ensure prompt response and early detection of fire outbreaks, a fire monitoring plan is in effect. This plan includes the utilization of the Fire Information for Resource Management System (FIRMS) provided by NASA, which offers near-real-time active fire data for continuous monitoring. https://firms.modaps.eosdis.nasa.gov/. Employees are specially trained and equipped to fight fires as quickly as possible.</p> <p>As the greatest potential risk comes from the cattle farmers in the neighbourhood regularly burning their grassland, it is agreed with them to burn their pastures in as controlled a manner and to inform the forest plantation manager in advance so that CME would be prepared if the flames did spread to the planting area where the natural barriers and set up fire stripes were not sufficient.</p>
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	1.2 Wind damage (e.g., hurricanes, typhoon)	Not Applicable
	1.3 Animals (e.g., domestic or wild animals' encroachment)	<p>Probability of the risk As per the Risk and Capacities tool^{/05/}, High (Score 3) has been considered as Event is expected to occur once or more in 10 years. But due to the mitigation measures in place, the corrected score is Score 2 (Medium).</p> <p>The risk for occurrence of damages in young plantations by the entry of animals (like cows, horses, deer) from neighbouring farms/areas is deemed to be quite high. The probability is higher in the early stages of the plantation and decreases with the forest establishment.</p> <p>VVB has verified the evidence provided, confirms that the score for probability of risk due to animals is appropriate and valid.</p> <p>Impact of the risk As per the Risk and Capacities tool^{/05/}, ^{/08/} Low (1) Event is expected to harm the products / greenhouse gas benefits, but do not lead to full destruction, AND Products / greenhouse gas benefits are expected to recover without intervention in less than 5 years based on the current levels. The risks are considered to be low due to the animal encroachment (e.g., cows, horses, deer) from neighboring farms/areas that can have quite a large impact in young plantations but is limited in time to the first few months to three years while the trees are still small.</p> <p>VVB has verified the evidence provided, confirms that the score for impact of risk due to animals is appropriate and valid.</p> <p>Scale of the risk As per the Risk and Capacities tool^{/05/}, ^{/08/}, the scale of the risk is medium. Hence validates the risk score 2 (Medium). With the mitigation measures in place the scale of the risk is expected to affect less than 5% of the project area, and it is therefore assessed as low (Score 1).</p> <p>Mitigation measures VVB confirms that fences can be installed along property lines that are not protected by creeks, if necessary. In addition, staff (a family) is living permanently on site; among their tasks, one is to overlook the project area, and to respond quickly if animals should enter the project area.</p>

	<p>1.4 Pest and disease outbreaks (e.g.,insects, bacteria, viruses, fungi)</p>	<p>Probability of the risk</p> <p>As per the Risk and Capacities tool^{/05/}, score 3 (high) has been considered as event is expected to occur once or more in 10 years. VVB confirms that the probability of a pest or disease outbreak or a massive insect infestation is considered low (Score 1) with the mitigation measures in place as they conservatively assessed the probability of the risk as high without mitigation measures in place.</p> <p>Impact of the risk</p> <p>As per the Risk and Capacities tool^{/05/}, medium (2) Event is expected to harm the products / greenhouse gas benefits, but do not lead to full destruction, AND Products / greenhouse gas benefits are expected to recover without intervention in more than 5 years from the current levels.</p> <p>The impact of pests and disease in recently established restoration areas can be quite high, particularly in the presence of large populations of leafcutter ants (<i>Atta</i> spp. and <i>Acromyrmex</i> spp.) and/or root-eating beetle larvae (<i>Phyllophaga</i> spec.).</p> <p>This impact is higher in the early stages of the forest restoration and decreases with the forest establishment. Also, the populations of leaf-feeding insects in these tropical grasslands is expected to be low. The impact of the risk is therefore rated as medium. Based on the evidence review, VVB confirms the scoring for impact of the risk to be valid and appropriate.</p> <p>Scale of the risk</p> <p>As per the Risk and Capacities tool^{/05/}, score is medium (2), that Event is expected to affect between 5% and 50% of the project area. The scale of the risk is considered low(1) with proposed mitigation measures in place. Based on the evidence review^{/08/}, VVB confirms the scoring for impact of the risk to be valid and appropriate.</p> <p>Mitigation Measures</p> <p>As per the Risk and Capacities tool^{/05/}, VVB confirms that the best way to prevent pests and diseases as well as massive insect infestation within the planting area is diversification by using a variety of native tree species well adapted to the given climatic and soil conditions and planted in mixed stands.</p> <p>VVB confirms that a mix of companion plants (<i>Cajanus cajan</i>, <i>Canavalia ensiformis</i>, <i>Ricinus communis</i>, <i>Vigna unguiculata</i>) will be planted together with the tree seedlings. This special selection of annual herbaceous plants serves to protect the young seedlings and help them to come up with vigour and health, and to protect them from pests and diseases, while improving the soil.</p>
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	<p>1.5 Temperature extremes (e.g., extreme heat, frost)</p>	<p>Not Applicable</p>
	<p>1.6 Water extremes (e.g. droughts, heavy rains, floods, mudslides, avalanches, ice-storms)</p>	<p>Probability of the risk</p> <p>As per the Risk and Capacities tool^{/05/}, score is 3 (High) that the event is expected to occur once or more in 10 years.</p> <p>During the on-site inspection and interviews^{/i-xxv/}, VVB confirms that the project site is situated in a tropical savanna climate, known for its pronounced seasonality and abundant annual precipitation ranging from 2,341 to 2,724 mm. During the dry season, monthly precipitation remains at a minimum of 12 mm, while in the rainy season, it can reach a maximum of 416 mm. As a result of these weather patterns, the area experiences extreme events such as droughts during the peak of the dry season (January/February) and heavy rainfall leading to temporary flooding in the peak of the rainy season (May - July).</p> <p>VVB further verified this from sources: 1)https://es.climate-data.org/america-del-sur/colombia/vichada/la-primavera-49978/ 2)https://es.climate-data.org/america-del-sur/colombia/vichada/puerto-carreno-3822/</p> <p>Impact of the risk</p> <p>As per the Risk and Capacities tool^{/05/}, score is 2 (Medium) Event is expected to harm the products / greenhouse gas benefits, but do not lead to full destruction, and Products /greenhouse gas benefits are expected to recover without intervention in more than 5 years from the current levels.</p> <p>VVB confirms that the potential impact of extreme water events on the planted trees is conservatively assessed as low (Score 1) in the presence of mitigation measures. While drought periods are not frequent, they can occur during the dry season. Given the project area's predominantly flat terrain, which is elevated between 110 and 140 meters above sea level, temporary flooding is anticipated along the creeks and in certain depressions within the project site following heavy rainfall in the rainy season. Both drought periods and floodings after heavy rains pose potential risks to the growth and survival of</p>

		<p>seedlings and young trees. These impacts of the risk are higher in the initial stages of reforestation and decrease once trees are bigger and a closed forest cover has developed. Hence the impact of the risk of water extremes is low with the mitigation measures in place. Based on the evidence review, VVB confirms the scoring for impact of the risk to be valid and appropriate</p> <p>Scale of the risk</p> <p>As per the Risk and Capacities tool^{/05/}, score is 2 (Medium) which is expected to affect between 5 % and 50 % of the project area.</p> <p>During the on-site inspections and interviews^{/i-xxv/}, VVB confirms that the occurrences of water extremes, will impact the extend beyond the project area and affect the entire region. However, the presence of numerous creeks, gallery forests within and surrounding the planting area, as well as the depressions, are expected to have a mitigating effect during possible drought periods. These areas act as natural reservoirs and help maintain a balance in water availability. Conversely, during potential flooding events, these same areas are more susceptible to being affected due to their low-lying nature.</p> <p>Mitigation measure</p> <p>VVB confirms that that CME effectively mitigates the risks associated with water extremes, including droughts and floodings after heavy rains. CME achieves this by implementing several strategies. Firstly, they exclusively plant carefully selected native tree species (and one non-native adapted tree species) that are well-suited to the specific climatic and soil conditions of the project area. These tree species have natural adaptations that enable them to withstand and thrive in such conditions.</p> <p>Moreover, CME employs a mixed planting approach, where different tree species are planted together in the same stands. This mixed stand planting strategy enhances the resilience of the planted forests to weather extremes. By diversifying the tree species, the forests can better withstand the impacts of droughts and heavy rainfall.</p> <p>Additionally, companion plants are incorporated into the planting scheme to provide shelter and support for the young tree seedlings. These companion plants not only offer physical protection but also assist in water absorption, helping to regulate soil moisture and reduce the effects of water extremes on the planted forests.</p> <p>These combined measures implemented by CME enhance the resilience of the planted forests, enabling</p>
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		<p>them to better withstand and recover from potential weather extremes that may occur in the region.</p>
	<p>1.7 Changing climate (e.g. long draught period, seasonal variability of rainfall pattern, water availability)</p>	<p>Probability of the risk As per the Risk and Capacities tool^{/05/}, score is 3 (high) Climate change is a fact and a continuous process, not an event.</p> <p>Impact of the risk As per the Risk and Capacities tool^{/05/}, score is 1 (low). Event is expected to harm the products / greenhouse gas benefits, but do not lead to full destruction, and Products / greenhouse gas benefits are expected to recover without intervention in less than 5 years based on the current levels. Based on climate projections for Colombia, derived from IPCC scenarios, it is expected that the country will experience above-average warming, although there is significant uncertainty regarding future rainfall patterns. Most scenarios suggest an overall increase in annual precipitation by the end of the century, although regional variability is also considered to be significant.</p> <p>Specifically for the project area located in the eastern plains of Colombia, precipitation projections for the period 2040-2059 indicate a moderate decrease in rainfall. However, it is important to note that the average annual precipitation in the project region, ranging from 2,341 mm (Puerto Carreño) to 2,724 mm (La Primavera), is already relatively high. Additionally, the presence of numerous creeks within and surrounding the project area further contributes to the availability of water resources.</p> <p>Therefore, even with a moderate decrease in precipitation, it is unlikely to result in increased drought stress during the dry season. At most, it might have a negligible impact on the growth rates of the planted trees. The ample water supply in the region, combined with the existing high levels of precipitation, ensures that water availability will not be a limiting factor for the project's success.</p> <p>Scale of the risk As per the Risk and Capacities tool^{/05/}, score is 2 (Medium) where, event is expected to affect between 5 % and 50 % of the project area. When climate is changing, it is expected to affect the entire region. However, the many creeks and gallery forests within and surrounding the planting area as well as the depressions will have a balancing effect during possible drought periods. In turn, these areas are more affected by potential flooding. Therefore, we assume that no more than 50% of the project area would be affected by any single event, since they cannot occur simultaneously and rate the scale of</p>

	<p>the risk as medium. VVB confirms the scoring for scale of the risk to be valid and appropriate.</p> <p>Mitigation measures</p> <p>VVB confirms that to mitigate the risk of climate change, BaumInvest only plants carefully selected native tree species and one non-native (adapted) tree species that are adapted to the climatic and soil conditions of the project area and planted in mixed stands. This makes the planted forests more resilient to increasing weather extremes that may occur in the region. Careful site selection for reforestation areas to minimize the risks of climate change and other natural disasters from the very beginning.</p>
1.8 Earthquake and induced landslides	Not Applicable.
1.9 Geological risk (e.g. volcanic eruption, desert progression)	Not Applicable.
2. Political risks	
2.1 Political interventions (e.g. wars, riots, civil strife, terrorism, corruption, land occupation, community resistance)	Not Applicable.
2.2 Confiscation of property (e.g. expropriation, infrastructure development)	Not Applicable.
2.3 Irregular resettlement	Not Applicable.
2.4 Exploitation of natural resources (e.g. mining, water, oil)	Not Applicable.
Project Management risks	

	<p>3.1 Project failure due to:</p> <ul style="list-style-type: none"> insufficient internal technical capacity (e.g. due to high fluctuation of season workers or permanent staff, not sufficient training), <p>OR</p> <ul style="list-style-type: none"> dependency on continuous external technical support 	<p>Probability of the risk</p> <p>As per the Risk and Capacities tool^{/05/}, Medium (Score 2) has been considered as Event is expected to occur less than once in 11-20 years. With mitigation measures in place, the score has been corrected to low (score 1) which deems to be valid to VVB.</p> <p>Through on-site inspections/interviews^{/I-xxv/}, VVB confirms that due to change of staff or restructuring, e.g., because of company growth, capacity constraints might be probable to occur.</p> <p>VVB has verified the evidence provided, confirms that the score for probability of risk of project failure due to insufficient internal technical capacity (e.g. due to high fluctuation of season workers or permanent staff, not sufficient training), or dependency on continuous external technical support is appropriate and valid.</p> <p>Impact of the risk</p> <p>As per the Risk and Capacities tool^{/05/}, Low (1) Event is expected to harm the products / greenhouse gas benefits, but do not lead to full destruction, AND Products / greenhouse gas benefits are expected to recover without intervention in less than 5 years based on the current levels. The risk is considered to be low due to long-term project duration and rather process- and role-oriented management structure.</p> <p>VVB has verified the evidence provided, confirms that the score for impact of risk due to insufficient internal technical capacity (e.g. due to high fluctuation of season workers or permanent staff, not sufficient training), or dependency on continuous external technical support is appropriate and valid.</p> <p>Scale of the risk</p> <p>As per the Risk and Capacities tool^{/05/}, the scale of the risk is also low. Hence validates the risk score 1 (Low) as without the mitigation measures in place, the risk could affect between 5% and 50% of the project area.</p> <p>Mitigation measures</p> <p>As per the Risk and Capacities tool^{/05/}, VVB confirms that the following mitigation measures within the project boundary:</p> <ul style="list-style-type: none"> Leadership by multi-headed interdisciplinary and international Management-Team, internal reporting structure Focus on defined processes and roles rather than on personal intrinsic know how Responsibility divided on several positions throughout group-structure, four-eyes principle, back-up for crucial processes, regular internal capacity building
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	<p>3.2 Project failure due to dependency on key technical individuals in the organization that are difficult to replace.</p>	<p>Probability of the risk As per Risk and Capacities tool^{/05/}, VVB validates the risk score two (2) as the event is expected to occur once in 11-20 years which is due to change of staff or restructuring, e.g., because of company growth, capacity constraints might be probable to occur. VVB has verified the evidence provided, confirms that the score for probability of risk of project failure due to dependency on key technical individuals in the organization that are difficult to replace is appropriate and valid.</p> <p>Impact of the risk As per the Risk and Capacities tool^{/05/}, Low (1) Event is expected to harm the products / greenhouse gas benefits, but do not lead to full destruction, AND Products / greenhouse gas benefits are expected to recover without intervention in less than 5 years based on the current levels. The risk impact considered low due to long-term project duration and rather process- and role-oriented management structure.</p> <p>Scale of the risk As per the Risk and Capacities tool^{/05/}, the scale of the risk is medium (score 2). Hence validates the risk score 1 (low) as the mitigation measures are in place, the risk could affect less than 5% of the project area.</p> <p>Mitigation measures VVB confirms that the following mitigation measures within the project boundary are applied: - Leadership by multi-headed interdisciplinary and international Management-Team, internal reporting structure - Focus on defined processes and roles rather than on personal intrinsic know how - Responsibility divided on several positions throughout group-structure, four-eyes principle, back-up for crucial processes, regular internal capacity building - Capacities and Know-How located within internal specialist staff as well as external services providers, both exchangeable if required.</p>
	<p>3.3 Project failure due to:</p> <ul style="list-style-type: none"> ● to the lack of technical equipment (e.g machinery), OR 	<p>Not Applicable.</p>

	<ul style="list-style-type: none"> • planting material (e.g import barriers such as taxes, bureaucracy) 	
	<p>3.4 Project failure due to:</p> <ul style="list-style-type: none"> • insufficient internal financial accounting and management capacity, or • dependency on continuous external financial accounting and management support 	Not Applicable.
	<p>3.5 Project failure due to dependence on key financial accounting and management expertise of individuals in the organization that are difficult to replace</p>	Not Applicable..
	<p>3.6 Project failure due to:</p> <ul style="list-style-type: none"> • insufficient internal legal management capacity, OR • dependency on continuous external legal management support 	Not Applicable..
	<p>3.7 Project failure due to dependence on key legal management individuals in the organization that are difficult to replace</p>	Not Applicable.
	<p>3.8 Project failure due to:</p>	Not Applicable.

	<ul style="list-style-type: none"> insufficient internal capacity to support to maintain third-party certification, OR dependency on continuous external support to support to maintain third-party certification 	
	3.9 Project failure due to dependence on key individuals to support to maintain third-party certification in the organization that are difficult to replace	Not Applicable.
	Financial risks	
	4.1 Late achievement of the project cumulative cashflow break-even point	Not Applicable.
	4.2 Lack of secured continued financial resources for project implementation until the project's the cumulative break-even cash flow (for profit projects) / total cost until end of crediting (non-profit projects)	Not Applicable.
	Market risks	
	5.1 Lack of liquidity/financial resources due to price variations (e.g. crop/timber produced, CO2-certificates, fertiliser, machines)	Not Applicable.

	5.2 Project failure due to competing commodities (e.g palm oil, soya)	Not Applicable.
	5.3 Project failure due to competing infrastructure (e.g settlements, roads)	Not Applicable.
	Other risks	
6.1 Any other specific project risk that endangers the viability of the project (e.g. project failure due to crop robbery/illegal timber logging, due to disputes with the cooperative)	Not Applicable.	

5. Certification Opinion

CC IPL has performed the design certification of the proposed Gold Standard real case VPA “GS 11707 VPA-02 Reforestation Project in Colombia 01” (GS12186) with start date of 02/05/2023.

This design certification has been conducted on the basis of the Gold Standard Afforestation/Reforestation (A/R) GHG Emissions Reduction & Sequestration Methodology (Version 2.0), GS4GG Land Use & Forests Activity Requirements Version 1.2.1, PAR Principles-requirements v1.2, Risks & Capacities Guideline for Land Use & Forest projects Version 1.0, Gold Standard Afforestation/Reforestation (A/R) GHG Emissions Reduction & Sequestration Methodology v2.0, PAR Validation and Verification standard v1.0 and GHG Emissions Reduction & Sequestration Product Requirements Version 2.0.

The design certification activities conducted by CC IPL included: collection of information, documents and data supporting the estimated GHG removals and GHG calculation spreadsheets; assessment of eligibility criteria for the inclusion of new VPA; assessment of management system.

The VVB has raised thirteen (13) clarification (CLs), seven (07) corrective action requests (CARs) and 00(zero) FARs, all of which has been raised and satisfactorily closed.

The VVB concludes with a reasonable level of assurance that the project is in conformance with Gold Standard Afforestation/Reforestation (A/R) GHG Emissions Reduction & Sequestration Methodology (Version 2.0). No qualifications or limitations exist with respect to the validation opinion reached by the auditor. CC IPL confirms that the project has been implemented in accordance with the Gold Standard Afforestation/Reforestation (A/R) GHG Emissions Reduction & Sequestration Methodology (Version 2.0).

Appendix 1. List of Findings from Design Certification

Table 1. CL from this Design Certification

CL	01	Section no.	Ex-ante carbon calculation sheet	Date: 03/07/2023
Description of CL				
<p>VVB has reviewed the ex-ante carbon calculation sheet provided and has observed the following:</p> <ul style="list-style-type: none"> a) The source for life expectancy is missing for <i>Anadenanthera peregrina</i>, <i>Dipteryx odorata</i>, <i>Simarouba amara</i> and <i>Ochroma pyramidale</i>. b) The values under the sheet "C seq Ex-ante model +Outlier" in cell J6 is hardcoded. Furthermore, the reference for baseline shrub and grassland (23.6 grassland tCO₂/ha & 0.4242 tCO₂/ha exoradic shrubs (conservative)) has not been provided. c) Under sheet "Tree booklet_data", the AGB value, after Outlier analysis, in cell AS4 is hardcoded. <p>CME is requested to clarify on the points mentioned above.</p>				
CME response				Date: 18/07/2023
<p>The ex-ante carbon calculation sheet has been updated:</p> <ul style="list-style-type: none"> a) the reference source for life expectancy for <i>Anadenanthera peregrina</i>, <i>Dipteryx odorata</i>, <i>Simarouba amara</i> and <i>Ochroma pyramidale</i> is indicated. b) The reference to the grassland, exoradic shrubs (conservative) and fertiliser application is under different sheets and linked to the main calculation sheet "C seq Ex-ante model +Outlier" in a more illustrative way. The value for the exoradic shrubs (conservative) of 0.4242 tCO₂/ha is provided in the excel "El Veraneo_baseline shrub biomass_v1.1.xlsx" in cell I34 (See CL 02). c) AGB values after Outlier analysis, in columns AP to AW under sheet "Tree booklet_data" are linked to the precedent values. 				
Documentation provided by CME				
Carbon fixation_COL01_v1.2.xlsx				
VVB assessment				Date: 25/07/2023
<ul style="list-style-type: none"> a) The source for the <i>Anadenanthera peregrina</i>, <i>Dipteryx odorata</i>, <i>Simarouba amara</i> and <i>Ochroma pyramidale</i> has been provided in the revised ex-ante carbon calculation sheet. VVB further reviewed the sources and confirms that the provided links and sources are valid and satisfactory. b) VVB has reviewed the sheet "Baseline grassland" and confirms that the value of 23.6 tCO₂/ha has been calculated through the IPCC default value from the source "2006 IPCC GfNGGI_Grassland.pdf" (page 27, table 6.4)" along with the GS default values for grassland. Furthermore, the conservative value of 0.4242 tCO₂/ha has been calculated in "El Veraneo_baseline shrub biomass_v1.1.xlsx" excel sheet. c) The values are linked to the precedent values under the same sheet and has been verified by VVB and confirms that the provided clarification is valid and satisfactory. 				
CL has been closed				

CL	02	Section no.	Baseline shrub inventory spreadsheet	Date: 11/07/2023
Description of CL				
<p>VVB has conducted an acceptance sampling of the baseline inventory used for the baseline shrub calculation. The sampling and original records were deemed acceptable, however, VVB has following comments on the Baseline shrub inventory spreadsheet:</p> <p>a) Under sheet "Analysis", The source data for the values for BDR_{SF}, B_{FOREST} (t/ha) and $CC_{SHRUB,i}$ have been provided, however, the values in the cell cannot be traced back to source. The same is applicable to parameter "1+Rs" in the worksheet.</p> <p>b) Formula used for "Crown cover %" in the worksheet "sampled points (16)" is not provided.</p>				
CME response				Date: 18/07/2023
<p>a) <i>The Baseline shrub inventory spreadsheet has been updated with a new sheet "Ref default values & equations" in which a clearer data source for the values BDR_{SF}, B_{FOREST} (t/ha), R_s and $CC_{SHRUB,i}$, as well as the equations used in the calculations, is provided.</i></p> <p>b) <i>The formula used for "Crown cover (%)" is now provided under the sheet "Ref default values & equations".</i></p>				
Documentation provided by CME				
<i>El Veraneo_baseline shrub biomass_v1.1.xlsx</i>				
VVB assessment				Date: 25/07/2023
<p>a) Based on the review of the "El Veraneo_baseline shrub biomass_v1.1.xlsx" under sheet Ref default values & equation, VVB confirms that the source for the BDR_{SF}, $B_{FOREST}(t/ha)$ and $CC_{SHRUB,i}$ has been provided and are valid.</p> <p>b) The formula used for "Crown cover %" has been provided along with the source i.e., "Penridge and Walker (1988). The crown-gap ratio (C) and crown cover: Derivation and simulation study. Australian Journal of Ecology 13: 1090-120".</p>				
CL has been closed				

CL	03	Section no.	Forest management plan	Date: 03/07/2023
Description of CL				
<p>As per the document Forest Management plan provided:</p> <p><i>"50% of the Simarouba amara and 25% of Jacaranda copaia and Terminalia ivorensis will be removed".</i></p> <p>However, as per the VPA-DD, the project is a conservation project and there is no harvesting. CME is requested to clarify on this.</p>				
CME response				Date: 18/07/2023
<p><i>The Forest Management Plan has been updated with the more appropriate technical term "thinned" in substitution of "removed". As the VVB has pointed out, this conservation project does not contemplate harvesting for commercial purposes. Thinned trees will not be removed from the planting area, but decompose there and serve to increase the organic material in the soil, soil fertility and biodiversity.</i></p>				
Documentation provided by CME				
<i>Forest Management Plan.pdf</i>				
VVB assessment				Date: 25/07/2023

Based on the clarification provided, VVB has reviewed the revised forest management plan. VVB confirms that thinning is the part of management practice which will improve the growth and biomass of the forest and is not being done for harvesting purposes. Furthermore, PP has clarified that the thinned trees will be left on the planting area and will serve as increasing the organic material in the soil.

CL has been closed

CL	04	Section no.	Appendix 3: VPA-DD	Date: 03/07/2023
Description of CL				
<p>Under section B.2 of the VPA DD, CME has demonstrated the project's compliance with the applicability conditions of the applied methodology including demonstration that project does not include wetlands.</p> <p>However, the following paragraph under Appendix 3 of the VPA-DD needs clarification on the existence of wetlands in the project area:</p> <p><i>"Within the project area there are as well remaining old-growth and secondary forest and wetlands."</i></p>				
CME response				Date: 18/07/2023
VPA-DD has been updated to substitute the word "wetland" by "water streams and creeks" to avoid a misleading interpretation.				
Documentation provided by CME				
BaumInvest_VPA Colombia_Design-Document_v1.2.pdf				
VVB assessment				Date: 25/07/2023
Based on the clarification provided, VVB confirms that the CME has revised the VPA-DD and has substituted the term "wetland" by "water streams and creeks". This has been further confirmed by VVB that the project area does not constitute any wetland by reviewing the reports: Reports Humboldt for wetlands and Ramsar sites.				
CL has been closed				

CL	05	Section no.	CL 01 from SustainCERT preliminary review comments	Date: 19/04/2023			
Description of CL							
<p>CME must clarify for review why the SDG 13 values vary between table 1 in Section A.1.1 and Section B.6.4 of the VPA-DD.</p> <p>From table 1 in Section A.1.1:</p>							
13 Climate Action (mandatory)		<ul style="list-style-type: none"> Emission reductions / natural carbon removals through reforestation of former pastureland measured in t CO₂e /ha/year. 	<ul style="list-style-type: none"> 943,887 tCO₂ (23,597 tCO₂e/year). 				
<p>From B.6.4:</p> <table border="1"> <thead> <tr> <th>Baseline estimate</th> <th>Project estimate</th> <th>Net benefit</th> </tr> </thead> </table>					Baseline estimate	Project estimate	Net benefit
Baseline estimate	Project estimate	Net benefit					

Total	25,799	969,687	755,110
Total number of crediting years	40		
Annual average over the crediting period		24,242	18,878

Is this because the values in B.6.4 are total including SOC and after removing buffer while in A.1.1 values are excluding buffer and/or buffer calculation?

Date: 18/07/2023

VPA-DD has been revised all the values for SDG 13 (tCO₂e/year) alongside the document so they are calculated including SOC and prior buffer discount.

VPA-DD has been revised with a footnote for SDG 13 values (tCO₂e/year) in Table 1 (section Land-use & Forest and Agriculture – Key Project Information) and section B.6., to explain that this value is the project estimate including SOC estimate and prior buffer discount. Similarly, the value provided under the total project estimate in B.6.4 includes an explanatory note with the same information.

Documentation provided by CME

BaumInvest_VPA Colombia_Design-Document_v1.2.pdf

VVB assessment

Date: 25/07/2023

VVB has reviewed the revised VPA-DD and confirms that CME has revised all the values for SDG 13 and is consistent in the whole document. The project estimate removals for the whole crediting period is 971,568 tCO₂ with an annual average removal of 24,289 tCO₂e/year which is prior the buffer deductions and including SOC removal values.

CL has been closed

CL	06	Section no.	CL 02 from SustainCERT preliminary review comments	Date: 19/04/2023
Description of CL				
CME may optionally include further supporting documentation at validation regarding funding sources in support to the claim of ongoing financial need.				
CME response				Date: 18/07/2023
Section B.5.2 of the VPA-DD has been updated. A simple cost analysis demonstrates that the proposed A/R activity generates no financial benefit other than VER related income, and thus how the finance derived from the Gold Standard Certification is material to the ongoing sustainability of the Project.				
Documentation provided by CME				
Simple Cost Analysis.xlsx				
VVB assessment				Date: 25/06/2023
VVB confirms that CME has provided the simple cost analysis document demonstrating that the proposed A/R activity generates no financial benefit other than VER related income, and thus how the finance derived from the Gold Standard Certification is material to the ongoing sustainability of the Project.				
CL has been closed				

CL	07	Section no.	CL 03 from SustainCERT preliminary review comments	Date: 19/04/2023
Description of CL				

CME may optionally include documents/excel sheets demonstrating overview of project finances that demonstrates how the finance derived Gold Standard Certification is material to the ongoing sustainability of the Project during validation.

CME response	Date: 18/07/2023
Section B.5.2 of the VPA-DD has been updated. A simple cost analysis demonstrates that the proposed A/R activity generates no financial benefit other than VER related income, and thus how the finance derived from the Gold Standard Certification is material to the ongoing sustainability of the Project.	
Documentation provided by CME	
Simple Cost Analysis.xlsx	
VVB assessment	Date: 25/06/2023
VVB confirms that CME has provided the simple cost analysis document demonstrating that the proposed A/R activity generates no financial benefit other than VER related income, and thus how the finance derived from the Gold Standard Certification is material to the ongoing sustainability of the Project.	
CL has been closed	

CL	08	Section no.	OBS 01 from SustainCERT preliminary review comments	Date: 19/04/2023
Description of CL				
Some minor editorial changes CME can optionally make in VPA-DD KPIs to improve documentation:				
- Each real case VPA title must be prefixed with PoA GS ID that VPA is linked to. Example: POA GS ID - VPA Number - VPA Title GS001 VPA-1 Choybalsan cookstoves in Mongolia				
"Title of VPA" - Each regular VPA title must be prefixed with the corresponding real case VPA GS ID followed by PoA GS ID that VPA is linked to. See example: POA GS ID – Real case VPA ID – Real case VPA number– Regular VPA Title GS001 GS0025 RVPA-1 Choybalsan cookstoves in Mongolia				
CME response				Date: 18/07/2023
The VPA-DD has been updated with the "title of the corresponding real case VPA" and the "title of VPA" as indicated in the description of this CL.				
Documentation provided by CME				
BaumInvest_VPA Colombia_Design-Document_v1.2.pdf				
VVB assessment				Date: 25/07/2023
CME has appropriately revised the "title of the corresponding real case VPA" and the "title of VPA" which is in compliance with the GSF registry and has been reviewed by VVB.				
CL has been closed				

CL	09	Section no.	OBS 02 from SustainCERT preliminary review comments	Date: 19/04/2023
Description of CL				
The CME is requested to upload an English translation of the following documents: "Matricula_Grundbuchauszug El veraneo auf BICO_11.11.2022.pdf." "Company Registry BICO (Camara de Comercio) 03.04.2023.pdf".				
CME response				Date: 18/07/2023
The above-mentioned document "Company Registry BICO (Camara de Comercio) 03.04.2023.pdf" has been replaced with the more updated document "HR-Auszug BICO_Camara de comercio_25.05.2023.pdf". The English translation of the documents "Matricula_Grundbuchauszug El veraneo auf BICO_11.11.2022.pdf" and "HR-Auszug BICO_Camara de comercio_25.05.2023.pdf" have been submitted to the VVB alongside with this response.				

Documentation provided by CME	
<i>Matricula_Grundbuchauszug El veraneo auf BICO_11.11.2022_ENG.pdf</i> <i>HR-Auszug BICO_Camara de comercio_25.05.2023_ENG.pdf</i>	
VVB assessment	Date: 25/07/2023
CME has provided with the updated document " <i>Matricula_Grundbuchauszug El veraneo auf BICO_11.11.2022_ENG.pdf</i> & <i>HR-Auszug BICO_Camara de comercio_25.05.2023_ENG.pdf</i> ". VVB has reviewed the document and confirms that the documents provided are in English translation and are valid.	
CL has been closed	

CL	10	Section no.	OBS 03 from SustainCERT preliminary review comments	Date: 19/04/2023
Description of CL				
The CME may optionally include the actual map in "Section A.2 – Location of the VPA" of the VPA-DD rather than referencing the separate attachment "Map01_Project_location.pdf". Rating agencies often demand Shapefiles of project areas if the maps are referenced in separate documents and not included in the report.				
CME response				Date: 18/07/2023
The VPA-DD has been revised to include a map of the project location in section A.2.				
Documentation provided by CME				
<i>BaumInvest_VPA Colombia_Design-Document_v1.2.pdf</i>				
VVB assessment				Date: 25/06/2023
VVB confirms that CME has incorporated the map of the project location in section A.2 of the revised VPA-DD and is valid and consistent with the shapefiles provided.				
CL has been closed				

CL	11	Section no.	OBS 04 from SustainCERT preliminary review comments	Date: 19/04/2023
Description of CL				
PD may include supporting documentation to demonstrate project start date at the time of validation.				
CME response				Date: DD/MM/YYYY
NA				
Documentation provided by CME				
Acknowledgement of start date.pdf				
VVB assessment				Date: 25/06/2023
VVB confirms that CME/PD has provided with the letter from the implementation partner, confirming the start date of the project along with the photographs from the day of first planting i.e., 2 nd May 2023.				
CL has been closed				

CL 12: Indirect volume instead of direct biomass equations employed	
TR re-assessment	
2 August 2023	
CME must use direct methods for calculating biomass, namely allometric equations including species-specific wood density, particularly since no commercial harvesting is planned.	
CME response	Date: 04-08-2023
Using site-adapted native tree species for forest landscape restoration in tropical countries of Central and South America which are not being used for commercial plantations is still a very uncommon practice. Research on growth parameters for most of these species is rarely carried out since there is neither economic nor silvicultural motivation to do so and hence robust species specific allometric equations can hardly be found. Because of the lack of species-specific allometric equations fitting the local context, we used several different generic allometric equations for the estimation of	

biomass volumes. The followed-up outlier analysis and statistical precision test on the resulting dataset ensure the robustness of the data.

Species-specific wood density has been included in the excel sheet (see excel sheet "Tree booklet_data", column C).

CME evidence

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VVB assessment

Date: 07-08-2023

VVB, based on own internet research, confirms that there is no literature study with the same model and interventions for direct AGB calculation, in the project region. VVB, based on the review of the ex-ante carbon calculation sheet, confirms that CME has referred to allometric equations from variety of data sources (Chave 2005_1, Chave 2005_h, Chave 2014, Brown 1997, ICRAF, Brown 1989_dbh, Brown 1989_h), based on forest type "Tropical wet forest", followed by outlier analysis for each species. Furthermore, an statistical analysis has been conducted with a 20% precision level to obtain a conservative AGB value.

CL has been closed

CL 13: Template formatting errors

TR re-assessment

2 August 2023

Appendix 1 in "Key Project Information & VPA Design Document 29.06.23" includes multiple references to "ERROR! REFERENCE SOURCE NOT FOUND" that PP must correct.

CME response

Date: 04-08-2023

The above-mentioned error comes from saving the GS template word document to a ".pdf" file. The CME has manually corrected the entries with the error.

CME evidence

BaumInvest_VPA Colombia_Design-Document_v1.2.pdf

VVB assessment

Date: 07-08-2023

VVB confirms that CME has revised the references in the revised VPA-DD.

CL has been closed

Table 2. CAR from this validation

CAR	01	Section no.	Editorial, GS VPA-DD	Date:	24/05/2023
Description of CAR					
<p>CME is requested to revise the VPA DD as following:</p> <ul style="list-style-type: none"> • Use the latest version of the VPA-DD template v2.2. • Revise the correct name of the soil type- Ferralsols instead of Ferrasols in the relevant sections. • Revise the Section 5.2.2 number under section F of the GS VPA-DD to section 6.1.2 as per the document PoA requirements. • Provide non-eligible area in page 4 under Land-use & forest and Agriculture- KPI • Numbering sequence under section B.2 					
CME participant response				Date:	18/07/2023

The VPA-DD has been revised as following:

- Updated to the latest version of the VPA-DD template v2.3. (publication date 29/06/2023)
- Revised with the correct name of the soil type “Ferralsols”.
- Revised with the section number 6.1.2 as per the document PoA requirements.
- Updated with the non-eligible area in page 4 under Land-use & Forest and Agriculture – Key Project Information, as well as in the section A.1 Purpose and general description of project.
- Revised numbering sequence under section B.2.

Documentation provided by CME

BaumInvest_VPA Colombia_Design-Document_v1.2.pdf

VVB assessment

Date: 25/06/2023

- CME has revised the VPA-DD template to the latest version i.e., v2.3 (publication date 29/06/2023).
- CME has satisfactorily revised the name of soil “Ferralsol” in the relevant sections of the VPA-DD.
- CME has satisfactorily revised the section number as per the document PoA requirements.
- CME has incorporated the non-eligible area in page 4 as well as in the section A.1 of the revised VPA-DD.
- The numbering sequence has been revised under section B.2 of the revised VPA-DD.

Overall, VVB confirms that CME has satisfactorily done the requested corrections in the revised VPA-DD.

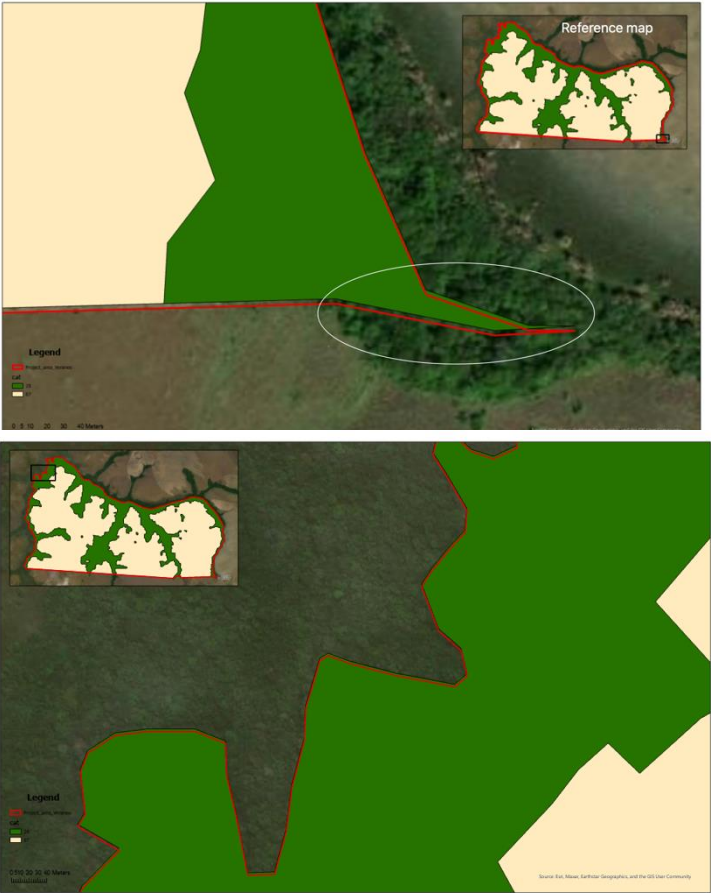
CAR has been closed

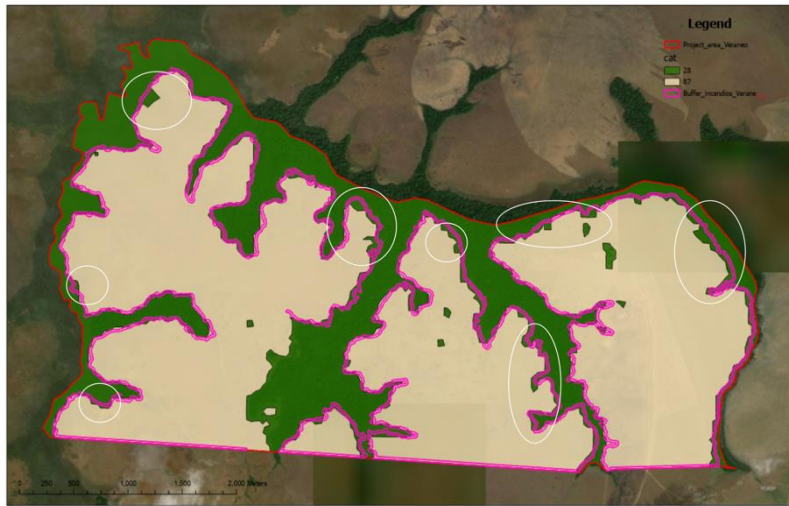
CAR	02	Section no.	B.3 GS VPA-DD	Date: 03/07/2023
Description of CAR				
CME is requested to provide description of other emissions in accordance with section 3.8 of the applied methodology, under section B.3 of the GS VPA-DD.				
CME response				Date: 18/07/2023
<i>Section B.3 of the GS VPA-DD has been updated to include two more sources of GHG emissions: fertilisers and use of machinery. Thus, section B.6.3., under SDG 13, and the ex-ante carbon calculation sheet, have been updated accordingly with the updated description of other emissions.</i>				
Documentation provided by CME				
<i>BaumInvest_VPA Colombia_Design-Document_v1.2.pdf</i> <i>Carbon fixation_COL01_v1.2.xlsx</i>				
VVB assessment				Date: 25/07/2023
Based on the revised VPA-DD and the ex-ante carbon calculation sheet, VVB confirms that the emissions from fertiliser use has been incorporated in the section B.3 of the VPA-DD and accordingly, the emissions has been subtracted from the removals for each year of application in the ex-ante carbon calculation sheet.				
CAR has been closed				

CAR	03	Section no.	Page 29, GS VPA-DD	Date: 03/07/2023
Description of CAR				
The link provided under footnote in page 29 of the GS VPA-DD is not accessible. CME is requested to revise the document and provide with appropriate link.				
CME response				Date: 18/07/2023
<i>The link provided for Colombia NDS under a footnote has been updated in the VPA-DD.</i>				
Documentation provided by CME				
<i>BaumInvest_VPA Colombia_Design-Document_v1.2.pdf</i>				
VVB assessment				Date: 25/07/2023

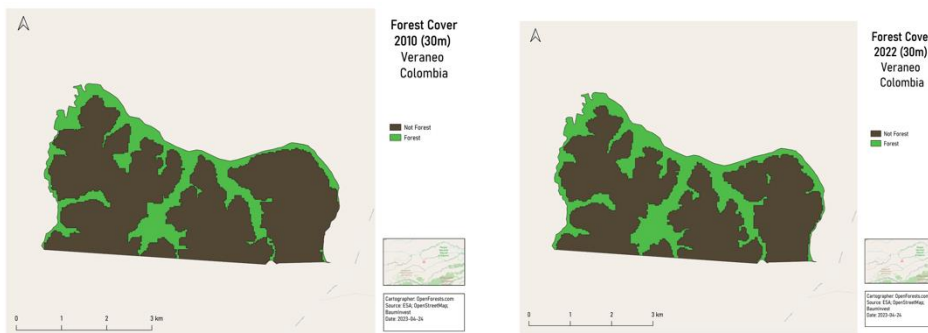
CME has revised the footnote in the revised VPA-DD for Colombia NDS and is now accessible.

CAR has been closed

CAR	04	Section no.	GIS shapefiles	Date: 03/07/2023
Description of CAR				
<p>VVB has reviewed the documentation provided, i.e., “<i>BAUMIN_1.PDF</i>” and has observed some inconsistencies which are mentioned below:</p> <p>1. The shapefiles “<i>Eligible_area_Veraneo.shp</i>; <i>Project_area_Veraneo.shp</i>” has an inconsistency topologic issue (edges of Eligible_area does not matches with project boundary).</p>  <p>2. The shapefiles “<i>Buffer_incendios_Veraneo</i>” is inconsistent with the forest boundaries of “<i>Eligible_area_Veraneo.shp</i>”.</p>				



3. The shapefiles for “Forest Cover 2010 and Forest Cover2022” of “Eligible_area_Veraneo.shp” as referred in the report “Report - BaumInvest El Placer - Final 230605.pdf” shall be provided to the VVB for validation.



CME response

Date: 18/07/2023

1. Both shapefiles for the project area and eligible area have been revised so there is no topological inconsistency or displacement between them. Both shapefiles have been submitted to the VVB alongside with this response.
2. The shapefile “Buffer_incendios_Veraneo” illustrates the fire corridors that will be maintained as a prevention measure against fires, to break the discontinuous on vegetation between the gallery forest and the plantation. These fire breaks are set in existing pastureland; existing forest will never be removed for this purpose. The comparison with the eligible area is irrelevant, since the mentioned “forest boundaries” are based on the forest / non-forest assessment and are therefore not necessarily the same as the “forest boundaries” of today.
3. The shapefile of Veraneo forest cover in 2010 has been submitted to the VVB alongside with this response.

Documentation provided by CME

1. Project_area_Veraneo.zip
- Eligible_area_Veraneo.zip
3. Forest Cover 2010 30m – Veraneo.zip

VVB assessment

Date: 25/07/2023

CME has provided with the revised shapefiles along and has done the requested corrections which are valid in opinion of VVB.

CAR has been closed

CAR	05	Section no.	C.2, VPA-DD	Date: 03/07/2023
Description of CAR				
As per section C.2 of the VPA-DD, the crediting period is 02/05/2023 to 02/05/2063. CME is requested to correct the end date of crediting period of 40 years.				
CME response				Date: 18/07/2023
VPA-DD section C.2 has been revised with the correct end date of the crediting period of 40 years.				
Documentation provided by CME				
BaumInvest_VPA Colombia_Design-Document_v1.2.pdf				
VVB assessment				Date: 25/07/2023
CME has done the requested correction under section C.2 of the revised VPA-DD. The crediting period is from 02/05/2023 till 01/05/2063.				
CAR has been closed				

CAR	06	Section no.	FAR from SustainCERT preliminary review comments	Date: 19/04/2023
Description of CAR				
The CME shall supply supporting data for all parameters in time for validation/design review, or allocation may be delayed. This includes and is not limited to: Maps, ER spreadsheets, individual study calculations, survey results, study reports etc. as included in the PoA and VPA.				
CME response				Date: 18/07/2023
The CME has provided the VVB with all supporting data for all parameters in time for validation/design review.				
Documentation provided by CME				
KML files, Ex-ante carbon calculation sheet, Baseline shrub biomass sheet, etc.				
VVB assessment				Date: 25/07/2023
VVB confirms that CME has provided all the supporting documents including and is not limited to: Maps, ER spreadsheets, individual study calculations, survey results, study reports, etc as included in the PoA and VPA.				
CAR has been closed				

CAR 7(i-iii): A typical management interventions				
TR re-assessment				
2 August 2023				
PP must define management interventions in greater detail for entire planned 40 year project length. (7-i) What is frequency and intensity of thinnings; (7-ii) How will harvested biomass be disposed since leaving biomass on-site to decompose is not operationally feasible in planted forests; and (7-iii) What are projected financial costs for precommercial thinning?				
CME response				Date: 04-08-2023
Defining the management interventions for the entire planned 40-year project length is not possible for the given conservation project. In contrast to commercial timber production projects, where a fixed silvicultural scheme is well-known and applied, the given project uses a mix of native (and in one case naturalized) tree species which do not rely on pre-defined specific silvicultural schemes. Management interventions for the given conservation project will be a result of the constant monitoring of the planted forest and will be carried out according to the growth dynamics and patterns of the forest in order to ensure a healthy and constant growth.				
CME evidence				
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VVB assessment				Date: 07-08-2023

Based on the response of the CME, VVB confirms that the provided response deemed to be valid as in context of conservation project, the natural forest involves different edaphic and site-specific factors influencing the growth of the same planted tree species in different locations of the project area. Thus, the management intervention cannot be pre-planned and will be developed as the project moves forward. Furthermore, VVB confirms that financial cost analysis is not required as the project is a conservation project and does not include harvesting.

CAR has been closed

Table 3. FAR from this design certification

FAR	XX	Section no.	NA	Date: DD/MM/YYYY
Description of FAR				
Not applicable				
CME response				Date: DD/MM/YYYY
Documentation provided by CME				
VVB assessment				Date: DD/MM/YYYY

Appendix 2. Safeguarding Principles Assessment

Assessment Questions/ Requirements	Justification of Relevance (Yes/potentially/no)	How Project will achieve Requirements through design, management or risk mitigation.	Mitigation Measures added to the Monitoring Plan (if required)	VVB Assessment
Principle 1. Human Rights				
<p>The Project Developer and the Project shall respect internationally proclaimed human rights and shall not be complicit in violence or human rights abuses of any kind as defined in the Universal Declaration of Human Rights.</p> <p>The Project shall not discriminate with regards to participation and inclusion</p>	Yes	<p>The project developer takes care that the project respects internationally proclaimed human rights and is not complicit in violence or human rights abuses of any kind as defined in the Universal Declaration of Human Rights. Colombia has ratified many UN Human Rights conventions.</p> <p>Participation in the project (e.g. in form of employment) is open to anyone in the area without discrimination of gender, religion or sexual orientation. So far, no cases of discrimination have been identified. See internal company policy "Internal working regulations" (see document "Reglamento Interno de Trabajo.pdf").</p>	N/A	<p>Appropriateness for this safeguarding principle has validated and confirmed through review of supportive document and on-site inspection interviews with:</p> <ul style="list-style-type: none"> • Representatives of CME • Local Stakeholders
Principle 2. Gender Equality				
<p>The Project shall not directly or indirectly lead to/contribute to adverse impacts on gender equality and/or the situation of women.</p> <p>Projects shall apply the principles of non-discrimination, equal treatment, and equal pay for equal work.</p>	Yes	<p>It is not either foreseen that the Project would adversely affect man and women in marginalized or vulnerable communities.</p> <p>The Project takes into account gender roles and the abilities of women and men to participate in the decision/designs of the project activities. For example, the stakeholder consultation in</p>	N/A	<p>Appropriateness for this safeguarding principle has been validated and confirmed through review of supportive document and on-site inspection interviews with:</p> <ul style="list-style-type: none"> • Representatives of CME • Local Stakeholders

<p>The Project shall refer to the country's national gender strategy or equivalent national commitment to aid in assessing gender risks Summary of opinions and recommendations of an Expert Stakeholder(s).</p>		<p>the project design phase includes both women and men participating in the consultation meeting. The project activity doesn't endorse any form of discrimination based on gender. Colombia has ratified ILO Conventions 100 (Equal Remuneration Convention) and 111 (Discrimination (employment and occupation)). Women can participate to the project and will therefore not put at risk women's or any other marginalized groups access to or control of resources, entitlements and benefits</p>		
<p>Principle 3. Community Health, Safety and Working Conditions</p>				
<p>The Project shall avoid community exposure to increased health risks and shall not adversely affect the health of the workers and the community.</p>	<p>Yes</p>	<p>The project activity doesn't expose the community to increased health risks and is not adversely affecting the health of workers and the community. For example, the workers participating in the project activity are not exposed to unsafe or unhealthy work environments as the planting and maintenance activities on the plantations will not include any hazardous chemicals or other hazardous material.</p>	<p>N/A</p>	<p>VVB during the on-site inspection and interviews/i-xxv/, confirms that the project activity does not expose the community to increased health risks and there is no application of hazardous chemicals or other hazardous material during the plantation activity.</p>
<p>Principle 4.1 Sites of Cultural and Historical Heritage</p>				
<p>Does the Project Area include sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture?</p>	<p>No The project activity doesn't include sites, structures or objects with historical, cultural, artistic, traditional or religious</p>	<p>--</p>	<p>N/A</p>	<p>VVB, based on interviews with the local communities, confirms that the project area does not include sites, structures, or objects with historical, cultural, artistic,</p>

	values or intangible forms of culture.			traditional or religious values or intangible forms of culture.
Principle 4.2 Forced Eviction and Displacement				
Does the Project require or cause the physical or economic relocation of peoples (temporary or permanent, full or partial)?	No The PPs hold uncontested legal land titles for the areas. No population displacement is foreseen nor desirable because people from the nearby communities is employed for establishment and maintenance activities and help to ensure the project success.	--	N/A	VVB, based on the supporting evidence ^{/13/14/} confirms that the land is held by the CME via VPA implementer and there is no population displacement due to project implementation.
Principle 4.3 Land Tenure and Other Rights				
Does the Project require any change, or have any uncertainties related to land tenure arrangements and/or access rights, usage rights or land ownership? For Projects involving land use tenure, are there any uncertainties with regards to land tenure, access rights, usage rights or land ownership?	No The Project doesn't require any change to land tenure arrangements and/or other rights. The PPs hold uncontested legal land titles for the areas. N/A	--	N/A	VVB, based on the supporting evidence ^{/13/14/} confirms that the land is held by the CME via VPA implementer and does not require any change in land tenure arrangements and/or rights.
Principle 4.4 - Indigenous people				
Are indigenous peoples present in or within the area of influence of the Project and/or is the Project located on land/territory claimed by indigenous peoples?	No There are no indigenous people present in or within the area of influence of the project. The project is not located on land/territory claimed by indigenous people.	--	N/A	Based on the on-site inspection and interviews/i-xxv/, VVB confirms that there are no indigenous peoples present in or within the area of influence of project.
Principle 5. Corruption				

<p>The Project shall not involve, be complicit in or inadvertently contribute to or reinforce corruption or corrupt Projects</p>	<p>Yes</p>	<p>The Project doesn't involve, be complicit in or inadvertently contribute to or reinforce corruption or corrupt Projects. The Project is implemented on CME's own land holding uncontested legal land titles for the areas Anti-corruption policy is defined in the internal company policy "Internal working regulations". Colombia has signed the OECD anti-bribery convention which is followed by BaumInvest (See: Colombia – OECD Anti-Bribery Convention – OECD).</p>	<p>N/A</p>	<p>Appropriateness for this safeguarding principle has been validated and confirmed through review of supportive document and on-site inspection interviews with:</p> <ul style="list-style-type: none"> • Representatives of CME • Local Stakeholders
<p>Principle 6.1 Labour Rights</p>				
<p>The Project Developer shall ensure that all employment is in compliance with national labour occupational health and safety laws and with the principles and standards embodied in the ILO fundamental conventions. Workers shall be able to establish and join labour organisations. Working agreements with all individual workers shall be documented and implemented and include:</p> <ol style="list-style-type: none"> Working hours (must not exceed 48 hours per week on a regular basis), and Duties and tasks, and Remuneration (must include provision for payment of overtime), and Modalities on health insurance, and Modalities on termination of 	<p>Yes</p>	<p>The Project is implemented on CME's own land holding uncontested legal land titles for the areas. The employees' rights are a cross-cutting issue and respected by Bauminvest (see "Reglamento Interno de Trabajo.pdf"). Colombia has ratified many ILO Conventions, amongst others convention 87 (Freedom of Association and Protection of the Right to Organise Convention) and convention 98 (Right to Organise and Collective Bargaining Convention) . Workers can at any time establish or join labour organisations (see "Reglamento Interno de Trabajo.pdf"). Regarding the project management, the necessary staff has been hired following labour laws accordingly.</p>	<p>N/A</p>	<p>VVB, based on the supporting evidence^{/19/}, confirms that the project activity ensures the appropriateness of the principle. This has been further confirmed through interviewing the CME and local stakeholders.</p>

<p>the contract with provision for voluntary resignation by employee, and f) Provision for annual leave of not less than 10 days per year, not including sick and casual leave.</p> <p>No child labour is allowed (Exceptions for children working on their families' property requires an Expert Stakeholder opinion) The Project Developer shall ensure the use of appropriate equipment, training of workers, documentation and reporting of accidents and incidents, and emergency preparedness and response measures</p>		<p>The working agreements with the individual workers will be documented and implemented and the minimum requirements stated in the section of GS4GG Safeguarding Principles & Requirements will be respected whenever applicable. All the possible staff hired by the project implementer has a minimum age of 18. Colombia has ratified ILO Conventions 138 (Minimum Age Convention) and 182 (Worst Forms of Child Labour Convention).</p> <p>All the works will be made by using appropriate equipment, training of workers, documentation and reporting of accidents and incidents, and emergency preparedness and response measures.</p>		
Principle 6.2 Negative Economic Consequences				
<p>Does the project cause negative economic consequences during and after project implementation?</p>	<p>No The project has in any case positive economic consequences derived from the employment of local people.</p>	<p>--</p>	<p>N/A</p>	<p>VVB, based on interviews with the local stakeholders and CME, confirms that the project does not cause any negative economic consequences during and after project implementation. The project has employed people in the planting activities.</p>
Principle 7.1 Emissions				
<p>Will the Project increase greenhouse gas emissions over the Baseline Scenario?</p>	<p>No The project will reduce the GHG emissions as it will be monitored and verified in line with the GS4GG.</p>	<p>--</p>	<p>N/A</p>	<p>VVB confirms that the project will sequester GHG emissions from the atmosphere through the plantation of trees.</p>

Principle 7.2 Energy Supply				
<p>Will the Project use energy from a local grid or power supply (i.e., not connected to a national or regional grid) or fuel resource (such as wood, biomass) that provides for other local users?</p>	<p>No Energy supply for BaumInvest AG, with main office located in Freiburg (Germany), and BaumInvest Latinoamerica Limitada with main office in Costa Rica (located in San José) uses energy from a national or regional grid. The main energy supply needed within the plantations' area is for the machinery use for the establishment and maintenance of plantations and infrastructure. Therefore, the main energy required is fuel.</p>	<p>--</p>	<p>N/A</p>	<p>The energy supply for the maintenance of the plantation area is through fuel. VVB, based on on-site inspection confirms that the project does not use energy from a local grid or power supply not connected to a national or regional grid.</p>
Principle 8.1 Impact on Natural Water Patterns/Flows				
<p>Will the Project affect the natural or pre-existing pattern of watercourses, ground-water and/or the watershed(s) such as high seasonal flow variability, flooding potential, lack of aquatic connectivity or water scarcity?</p>	<p>No The Project does not change or impact the flow of any water body. No dam is planned as part of the Project. It is not expected that the Project negatively affect the groundwater. On the contrary, increased vegetation through planted trees enables a better water infiltration, having positive impacts on the availability of groundwater. The Project does not consider the irrigation of plantations, plantations are naturally irrigated by rainwater. The only water required is the one used in the nurseries for watering the seedlings.</p>	<p>--</p>	<p>N/A</p>	<p>Appropriateness for this safeguarding principle has been validated and confirmed through review of supportive document and on-site inspection interviews with:</p> <ul style="list-style-type: none"> • Representatives of CME • Local Stakeholders

Principle 8.2 Erosion and/or Water Body Instability				
<p>Could the Project directly or indirectly cause additional erosion and/or water body instability or disrupt the natural pattern of erosion? Is the Project's area of influence susceptible to excessive erosion and/or water body instability?</p>	<p>No The project complies with the host country's legislation for the protection of buffer zones alongside water sources. According to the law n° 79 (1986)23 , "The following will be declared protective forest reserve areas for the conservation and preservation of water: a) All forests and natural vegetation found in permanent or non-permanent water sources, covering an extension of no less than two hundred (200) metres, measured from the periphery. b) All forests and natural vegetation existing in a strip not less than one hundred (100) metres wide, parallel to the maximum tide lines, on each side of the beds of rivers, creeks and streams, permanent or not, and around lakes, lagoons, swamps, or water reservoirs that supply dams for hydroelectric or irrigation services, rural and urban aqueducts, or are destined for human consumption, agriculture, livestock, aquaculture or for social interest uses". Furthermore, it is expected that forest plantations of the Project contribute to soil stability, hence the project activity will actually contribute to reduce the risk of erosion and/or Water Body Instability.</p>	<p>--</p>	<p>N/A</p>	<p>VVB, based on the review of the mandatory laws and legislations and on-site inspection/interviews/i-xxv/, confirms that the project is in compliance with the laws and does not directly or indirectly cause the erosion and/or water body instability.</p>
Principle 9.1 Landscape Modification and Soil				

Does the Project involve the use of land and soil for production of crops or other products?	No The Project doesn't involve the use of land and soil for production of crops or other products. However, intercropping may take place within the plantation areas.	--	N/A	VVB confirms that the project does not involve the use of land and soil for production of crops or other products.
Principle 9.2 Vulnerability to Natural Disaster				
Will the Project be susceptible to or lead to increased vulnerability to wind, earthquakes, subsidence, landslides, erosion, flooding, drought or other extreme climatic conditions?	Potentially The Project is potentially susceptible to extreme climatic conditions as flooding or droughts, but risk mitigation measures reduce vulnerability. On the contrary, regrowing forest landscapes will lead to decreased vulnerability to natural disasters	--	N/A	VVB has reviewed the potential risks to the project in section 4.20 of this report along with the mitigation measures taken.
Principle 9.3 Genetic Resources				
Could the Project be negatively impacted by or involve genetically modified organisms or GMOs (e.g., contamination, collection and/or harvesting, commercial development, or take place in facilities or farms that include GMOs in their processes and production)?	No The Project doesn't involve / or be negatively impacted by the use of genetically modified organisms or GMOs	--	N/A	Appropriateness for this safeguarding principle has been validated and confirmed through review of supportive document and on-site inspection interviews with: <ul style="list-style-type: none"> • Representatives of CME • Local Stakeholders
Principle 9.4 Release of pollutants				

Could the Project potentially result in the release of pollutants to the environment?	No The Project is not potentially resulting in release of pollutants to the environment.	--	N/A	VVB, based on the on-site inspection interviews confirms that the project activity does not result in release of pollutants to the environment.
Principle 9.5 Hazardous and Non-hazardous Waste				
Will the Project involve the manufacture, trade, release, and/or use of hazardous and non-hazardous chemicals and/or materials?	No The Project is not involving the manufacture, trade, release, and/or use of hazardous chemicals and or materials.	--	N/A	VVB, based on the on-site inspection interviews confirms that the project activity is not involved in the manufacture, trade, release and/or use of hazardous chemical and/or materials.
Principle 9.6 Pesticides & Fertilisers				
Will the Project involve the application of pesticides and/or fertilisers?	No The Project does not conceive the application of any kind of pesticides and/or chemical fertilisers. The use of any kind of chemical goes against BaumInvest project principles. Under extraordinary circumstances the use of pesticides might be temporarily and locally considered if and where necessary. In this situation, the use of biological pesticides has preference over any other conventional pesticide	--	N/A	VVB confirms that the project does not involve the application of pesticides and/or chemical fertilisers. This has been further confirmed during the on-site inspection and interviews.
Principle 9.7 Harvesting of Forests				
Will the Project involve the harvesting of forests?	No The project objective and silvicultural method applied is "Conservation Forest", and therefore does not conceive the harvesting of forests..	--	N/A	VVB confirms that the project is a conservation project aiming at restoring the degraded grassland with forest. The project does not includes harvesting but may consider silvicultural management

				practices like thinning and pruning for improved growth of the forest.
Principle 9.8 Food				
Does the Project modify the quantity or nutritional quality of food available such as through crop regime alteration or export or economic incentives?	No The Project doesn't modify the quantity or nutritional quality of food available.	--	N/A	Appropriateness for this safeguarding principle has been validated and confirmed through review of supportive document and on-site inspection interviews with: <ul style="list-style-type: none"> • Representatives of CME • Local Stakeholders
Principle 9.9 Animal husbandry				
Will the Project involve animal husbandry?	No The Project doesn't involve animal husbandry.	--	N/A	Appropriateness for this safeguarding principle has been validated and confirmed through review of supportive document and on-site inspection interviews with: <ul style="list-style-type: none"> • Representatives of CME • Local Stakeholders
Principle 9.10 High Conservation Value Areas and Critical Habitats				
Does the Project physically affect or alter largely intact or High Conservation Value (HCV) ecosystems, critical habitats, landscapes, key biodiversity areas or sites identified?	No The project does not negatively affect or alter intact or HCV ecosystems, critical habitats, landscapes, key biodiversity areas. On the contrary, the project will protect biodiversity through the conservation of natural habitats and enhancing habitat connectivity.	--	N/A	Appropriateness for this safeguarding principle has been validated and confirmed through review of supportive document and on-site inspection interviews with: <ul style="list-style-type: none"> • Representatives of CME • Local Stakeholders
Principle 9.11 Endangered Species				

<p>Are there any endangered species identified as potentially being present within the Project boundary (including those that may route through the area)? Does the Project potentially impact other areas where endangered species may be present through transboundary affects?</p>	<p>Yes Endangered species of the Orinoco region according to the UICN red list of threatened species include species like the jaguar (<i>Panthera onca</i>), the ocelot (<i>Leopardus pardalis</i>), the white-bellied spider monkey (<i>Ateles belzebuth</i>), the giant anteater (<i>Myrmecophaga tridactyla</i>), the giant armadillo (<i>Priodontes maximus</i>) and the giant otter (<i>Pteronura brasiliensis</i>). The emblematic "llanero" caiman (<i>Caiman intermedius</i>), one of the most studied crocodiles in the basin, is critically endangered. The morrocoy and charapa turtles (<i>Geochelone denticulate</i> and <i>Podocnemis expansa</i>), are also in danger of extinction. There could be more endangered species in the project area. A biodiversity study on herpetofauna will be carried out in April 2023, providing with a list of species seen in the baseline scenario, and classified (if applicable) under the appendix I, II and III of the CITIES list.</p>	<p>The project (forest restoration) will help the endangered species being protected. The project creates the habitat for those endangered species, and enlarge the area of distribution of species by connecting with remanent riparian forest.</p>	<p>The "Number of herpetofauna, and the number of threatened species of herpetofauna present in the project" is monitored. See section B.7.1.</p>	<p>VVB confirms that the mitigation measure has been added in the monitoring plan and the biodiversity assessment report^{29/} has been provided conducted by the third party Senckenberg Forschungsinstitut und Naturmuseum.</p>
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Appendix 3 – Certificates of Competence



Carbon Check (India) Private Limited

Certificate of Competency

Mr. Vikash Kumar Singh

has been qualified as per CCIPL's internal qualification procedures in accordance with the requirements of CDM AS (V7.0), ISO/IEC14065:2020, ISO/IEC 17029:2019 and other applicable GHG programs:

for the following functions and requirements:

- | | | | |
|--|--|---|--|
| <input checked="" type="checkbox"/> Validator | <input checked="" type="checkbox"/> Verifier | <input checked="" type="checkbox"/> Team Leader | <input checked="" type="checkbox"/> Technical Expert |
| <input checked="" type="checkbox"/> Technical Reviewer | <input type="checkbox"/> Health Expert | <input type="checkbox"/> Gender Expert | <input checked="" type="checkbox"/> Plastic Waste Expert |
| <input checked="" type="checkbox"/> SDG+ | <input checked="" type="checkbox"/> Social no-harm(S+) | <input checked="" type="checkbox"/> Environment no-harm(E+) | <input checked="" type="checkbox"/> CCB Expert |
| <input checked="" type="checkbox"/> Financial Expert | <input checked="" type="checkbox"/> Local Expert for India, South Africa, and Spanish speaking countries | | |

in the following Technical Areas:

- | | | | | |
|---|---|----------------------------------|---|---|
| <input checked="" type="checkbox"/> TA 1.1 | <input checked="" type="checkbox"/> TA 1.2 | <input type="checkbox"/> TA 2.1 | <input checked="" type="checkbox"/> TA 3.1 | <input checked="" type="checkbox"/> TA 4.1 |
| <input checked="" type="checkbox"/> TA 4. n | <input type="checkbox"/> TA 5.1 | <input type="checkbox"/> TA 5.2 | <input checked="" type="checkbox"/> TA 7.1 | <input type="checkbox"/> TA 8.1 |
| <input type="checkbox"/> TA 9.1 | <input type="checkbox"/> TA 9.2 | <input type="checkbox"/> TA 10.1 | <input checked="" type="checkbox"/> TA 13.1 | <input checked="" type="checkbox"/> TA 13.2 |
| <input checked="" type="checkbox"/> TA 14.1 | <input checked="" type="checkbox"/> TA 15.1 | | | |

Issue Date
1st January 2023

Expiry Date
31st December 2023



Mr. Amit Anand
CEO

**Carbon Check (India) Private Limited****Certificate of Competency****Ms. Isha Kapoor**

has been qualified as per CCIPL's internal qualification procedures in accordance with the requirements of CDM AS (V7.0), ISO/IEC14065:2020, ISO/IEC 17029:2019 and other applicable GHG programs:

for the following functions and requirements:

- | | | | |
|---|--|--|--|
| <input checked="" type="checkbox"/> Validator | <input checked="" type="checkbox"/> Verifier | <input checked="" type="checkbox"/> Team Leader | <input checked="" type="checkbox"/> Technical Expert |
| <input type="checkbox"/> Technical Reviewer | <input type="checkbox"/> Health Expert | <input type="checkbox"/> Gender Expert | <input type="checkbox"/> Plastic Waste Expert |
| <input type="checkbox"/> SDG+ | <input type="checkbox"/> Social no-harm(S+) | <input type="checkbox"/> Environment no-harm(E+) | <input type="checkbox"/> CCB Expert |
| <input type="checkbox"/> Financial Expert | <input checked="" type="checkbox"/> Local Expert for India | | |

in the following Technical Areas:

- | | | | | |
|---|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| <input type="checkbox"/> TA 1.1 | <input type="checkbox"/> TA 1.2 | <input type="checkbox"/> TA 2.1 | <input type="checkbox"/> TA 3.1 | <input type="checkbox"/> TA 4.1 |
| <input type="checkbox"/> TA 4. n | <input type="checkbox"/> TA 5.1 | <input type="checkbox"/> TA 5.2 | <input type="checkbox"/> TA 7.1 | <input type="checkbox"/> TA 8.1 |
| <input type="checkbox"/> TA 9.1 | <input type="checkbox"/> TA 9.2 | <input type="checkbox"/> TA 10.1 | <input type="checkbox"/> TA 13.1 | <input type="checkbox"/> TA 13.2 |
| <input checked="" type="checkbox"/> TA 14.1 | <input type="checkbox"/> TA 15.1 | | | |

Issue Date**1st January 2023****Expiry Date****31st December 2023**

Mr. Vikash Kumar Singh
Compliance Officer



Mr. Amit Anand
CEO

**Carbon Check (India) Private Limited****Certificate of Competency****Mr. Amit Anand**

has been qualified as per CCIPL's internal qualification procedures in accordance with the requirements of CDM AS (V7.0), ISO/IEC14065:2020, ISO/IEC 17029:2019 and other applicable GHG programs:

for the following functions and requirements:

- | | | | |
|--|--|---|--|
| <input checked="" type="checkbox"/> Validator | <input checked="" type="checkbox"/> Verifier | <input checked="" type="checkbox"/> Team Leader | <input checked="" type="checkbox"/> Technical Expert |
| <input checked="" type="checkbox"/> Technical Reviewer | <input type="checkbox"/> Health Expert | <input type="checkbox"/> Gender Expert | <input checked="" type="checkbox"/> Plastic Waste Expert |
| <input checked="" type="checkbox"/> SDG+ | <input checked="" type="checkbox"/> Social no-harm(S+) | <input checked="" type="checkbox"/> Environment no-harm(E+) | <input checked="" type="checkbox"/> CCB Expert |
| <input checked="" type="checkbox"/> Financial Expert | <input type="checkbox"/> Local Expert for India and South Africa | | |

in the following Technical Areas:

- | | | | | |
|---|---|----------------------------------|---|---|
| <input checked="" type="checkbox"/> TA 1.1 | <input checked="" type="checkbox"/> TA 1.2 | <input type="checkbox"/> TA 2.1 | <input checked="" type="checkbox"/> TA 3.1 | <input type="checkbox"/> TA 4.1 |
| <input type="checkbox"/> TA 4. n | <input type="checkbox"/> TA 5.1 | <input type="checkbox"/> TA 5.2 | <input checked="" type="checkbox"/> TA 7.1 | <input checked="" type="checkbox"/> TA 8.1 |
| <input type="checkbox"/> TA 9.1 | <input type="checkbox"/> TA 9.2 | <input type="checkbox"/> TA 10.1 | <input checked="" type="checkbox"/> TA 13.1 | <input checked="" type="checkbox"/> TA 13.2 |
| <input checked="" type="checkbox"/> TA 14.1 | <input checked="" type="checkbox"/> TA 15.1 | | | |

Issue Date**1st January 2023****Expiry Date****31st December 2023**

Mr. Vikash Kumar Singh
Compliance Officer



Carbon Check (India) Private Limited

Certificate of Competency

Mr. Bryan Conrad Foster

has been qualified as per CCIPL's internal qualification procedures in accordance with the requirements of CDM AS (V7.0), ISO/IEC14065:2020, ISO/IEC 17029:2019 and other applicable GHG programs:

for the following functions and requirements:

- | | | | |
|---|--|--|--|
| <input type="checkbox"/> Validator | <input type="checkbox"/> Verifier | <input type="checkbox"/> Team Leader | <input checked="" type="checkbox"/> Technical Expert |
| <input type="checkbox"/> Technical Reviewer | <input type="checkbox"/> Health Expert | <input type="checkbox"/> Gender Expert | <input type="checkbox"/> Plastic Waste Expert |
| <input type="checkbox"/> SDG+ | <input type="checkbox"/> Social no-harm(S+) | <input type="checkbox"/> Environment no-harm(E+) | <input type="checkbox"/> CCB Expert |
| <input type="checkbox"/> Financial Expert | <input checked="" type="checkbox"/> Local Expert for United States | | |

in the following Technical Areas:

- | | | | | |
|---|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| <input type="checkbox"/> TA 1.1 | <input type="checkbox"/> TA 1.2 | <input type="checkbox"/> TA 2.1 | <input type="checkbox"/> TA 3.1 | <input type="checkbox"/> TA 4.1 |
| <input type="checkbox"/> TA 4. n | <input type="checkbox"/> TA 5.1 | <input type="checkbox"/> TA 5.2 | <input type="checkbox"/> TA 7.1 | <input type="checkbox"/> TA 8.1 |
| <input type="checkbox"/> TA 9.1 | <input type="checkbox"/> TA 9.2 | <input type="checkbox"/> TA 10.1 | <input type="checkbox"/> TA 13.1 | <input type="checkbox"/> TA 13.2 |
| <input checked="" type="checkbox"/> TA 14.1 | <input type="checkbox"/> TA 15.1 | | | |

Issue Date

1st February 2023

Expiry Date

31st January 2024



Mr. Vikash Kumar Singh
Compliance Officer



Mr. Amit Anand
CEO