

CARPATHIA FOREST CARBON PROJECT VALIDATION REPORT



Document Prepared by Carbon Check India Pvt. Ltd.

Project Title	Carpathia Forest Carbon Project					
Version	3.0					
Project Location	South-central Carpathian Mountains, Romania					
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Summary:

Description of the validation and the project

The Fundatia Conservation Carpathia (FCC) has appointed Carbon Check (India) Pvt Ltd to carry out the Validation of the Project "Carpathia Forest Carbon Project" with regards to the relevant requirements of CCB Standard v3.1 (dated 21/06/2017)^{/B01/} and VCS Standard v4.4 (dated 17/01/2023)^{/B01/}.

The project "Carpathia Forest Carbon Project" is a grouped project, falling under the Improved Forest Management- Logged to protected forest (IFM-LtPF) category and targeting the following Verra certifications: Verified Carbon Standard (VCS) and Climate, Community & Biodiversity Standard (CCB).

The project is a grouped project activity being implemented in in central Romania in the wider Făgăraș Mountains (Natura 2000 designated site), including the Piatra Craiului National Park and the Leaota Mountains. CCB & VCS PD^{/01/} (refer figure 9) outlines the geographic area ("Project Zone") in which project activity instances (PAI) could be implemented as a part of the grouped project. The geographic area of the entire grouped project boundary as per the CCB & VCS PD^{/01/} is 324,719 ha.

The 1st PAI includes a total of 16 Romanian communities within 5 counties are part of the geographic area (includes both eligible and non-eligible area) of which 23,404 hectares. These are comprised of non-contiguous private lands ^{/28/} that is under the control of the project proponent. The verified total eligible project area ^{/09/} of the 1st Project activity instances (PAI) is 13,958 ha hectares. The CCB & VCS project has applied VM0012: Improved Forest Management in temperate and Boreal Forests (LtPF) v1.2^{/B02/}.

The implementation of the 1st PAI has resulted in restoration and protection of forests in the project area by improved forest management (IFM) practices that has led to protection of forest areas by reducing the logging as compared to the baseline scenario and through implementation of conservation management activities and has estimated GHG emission removal of 2,130,949.4 tCO₂e over the crediting period (09/08/2017 to 08/08/2057).

Table I: Dates & Timelines of CCB & VCS project:

Start date	9 th August 2017		
Crediting period	9 th August 2017 - 8 th August 2057		

Purpose and scope of validation

The purpose of the validation is the independent evaluation of the project's compliance with the VCS Standard v4.4 and CCB Standard v3.1^{/B01/}, in particular, the project's baseline^{/01/}, monitoring plan^{/01/}, project implementation, carbon captured by the project^{/03/}, methodology requirements^{/B02/} and compliance with the relevant VCS and CCB^{/B01/} and host party criteria. These are validated in order to confirm that the project design^{/01/}, as documented, is sound and reasonable and meets the identified criteria and the project has been implemented in compliance with the monitoring plan stated in the CCB & VCS PD^{/01/}. Carbon Check's objective is to perform a thorough, independent assessment of the validation of the project activity.

Validation scope is defined as an independent and objective review of the CCB & VCS Project Description (PD)^{/01/} against the relevant criteria and guidance documents provided by VCS including the following^{/B01/}:

- VCS Program Guide (v4.3, dated 17/01/2023)
- VCS Standard (v4.4, dated 17/01/2023)
- CCB Standard (v3.1, dated 21/06/2017)
- CCB Program Definitions (v3.0 dated 21/06/2017)
- Program Definitions (v4.3, dated 21/12/2022)
- Registration & Issuance Process (v4.3, dated 17/01/2023)
- AFOLU Non-Permanence Risk Tool (v4.0, dated 19/09/2019)
- VCS Validation and Verification Manual (v3.2, dated 19/10/2016)
- CCB & VCS Validation Report (v 3.0 CCB, dated 21/06/2017)

Based on the requirements above, the VVB has assessed if the project meets the applicability criteria of the selected baseline and monitoring methodology, "VM0012: Improved Forest Management in temperate and Boreal Forests (LtPF) v1.2"/^{B02/}. VVB has also assessed the claims and assumptions made in the CCB & VCS PD^{/01/}.

Method and criteria used for validation,

To conduct the validation audit, Carbon Check (India) Private Limited (CCIPL) conducted an assessment including a desk review of the project document (PD)^{/01/} and supporting documents^{/1-30/} in compliance with the requirements stated in the VCS Validation and Verification Manual v3.2^{/B01/}. Thereafter, verified the details and information from CCB & VCS PD^{/01/} by conducting an on-site inspection^{//01-I39/} from 25th September to 29th September 2023.

Number of findings raised during validation APPENDIX 2: FINDINGS LOG

During the validation, a total of 34 findings have been raised, which includes 17 (seventeen) Corrective Action Requests (CARs), 17 (seventeen) Clarification Requests (CLs) and 00 (Zero) Forward Action requests (FARs), all of which have been satisfactorily closed.

Uncertainties associated with the validation.

No uncertainty associated with the project implementation and calculations of GHG removals has been observed by the VV team.

Summary of the validation conclusions

Based on the on-site inspection^{//01-/39/} and the review of the CCB & VCS PD^{/01/} and supporting documents^{/1-30/}, the CCIPL team confirms that the project PD^{/01/} has been developed taking appropriate assumptions and values in compliance with the requirements of VCS Standard v4.4^{/B01/} and CCB Standard v3.1^{/B01/} and the methodology applied^{/B02/}. Also, the VV team confirms that the project has been implemented in line with the VCS and CCB requirements^{/B01/}, methodology requirements^{/B02/} and monitoring plan^{/01/} stated in the CCB& VCS PD^{/01/}.

Validation conclusion: In accordance with the requirements of VCS Standard v 4.4, CCB Standard v3.1 and the methodology applied VM0012 v1.2^{/B02/}, the validation team confirm that all the values and assumption included in the CCB & VCS PD^{/01/} including objectives, scope and criteria, level of assurance, baseline and monitoring plan^{/01/} are valid and applicable.



ABBREVIATIONS

AQL	Acceptable Quality Limit
AFOLU	Agriculture, Forest and other Land Use
CAR	Corrective Action Request
CCIPL	Carbon Check (India) Private Ltd.
ССВ	Climate, Community and Biodiversity
СВМ	Carbon Budget Model
CO ₂ e	Carbon Dioxide Equivalent
CL	Clarification Request
DBH	Diameter at breast height
DW	Dead Wood
HCV	High Conservation values
KML	Keyhole Markup Language
LL	Leaf Litter
LtPF	Logged to protected forest
DR	Document review
DVR	Draft Verification Report
FA	Final Approval
FAR	Forward Action Request
FCC	Foundation Conservation Carpathia
FVR	Final verification Report
GHG	Greenhouse gas(es)
IFM	Improved Forest Management
IPCC	Intergovernmental Panel on Climate Change
IR	Internal resource
MP	Monitoring Period
MR	Monitoring Report



PAI	Project Activity Instance
PD	Project Design
PP	Project Proponent
QC/QA	Quality control /Quality assurance
SOC	Soil Organic Carbon
ТА	Technical Area
TR	Technical Review
TLS	Terrestrial LiDAR System
UQL	Unacceptable Quality Limit
VVB	Validation & Verification Body
vvs	Validation and Verification Standard
VCU	Verified Carbon Unit

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1 INTRODUCTION

1.1 Objective

The purpose of this report is to document the compliance of the CCB & VCS project "Carpathia Forest Carbon Project" (hereafter referred to as "project") with the requirements of the Verified Carbon Standard (VCS)^{/B01/} and Climate, Community & Biodiversity Standard (CCB)^{/B01/} and the applied VCS methodology^{/B02/}. This project is owned^{/09//28/} by Fundatia Conservation Carpathia (FCC).

Based on the CCB & VCS PD^{/01/}, VVB has ascertained the following on the VCS project: Table II: Project Details.

VCS category	Improved Forest Management- Logged to Protected Forest (IFM-LtPF)
Applied methodology	VCS Methodology "VM0012: Improved Forest Management in
	temperate and Boreal Forests (LtPF) v1.2" /B02/
Sectoral scope	14: Agriculture, Forest and other Land Use (AFOLU)

The validation objective of the project includes:

- ✓ Assessment of compliance with the VCS Program Guide^{/B01/}, VCS Standard version 4.4^{/B01/}, CCB Standard version 3.1^{/B01/} and other relevant VCS & CCB requirements^{/B01/}.
- ✓ Assessment of compliance with the applied VCS methodology VM0012 version $1.2^{/B02/}$.
- ✓ Assessment of project compliance with the relevant rules including host country legislation^{/06/12/}.

1.2 Scope and Criteria

The scope of validation is to assess the conformance of the CCB & VCS PD^{/01/} and other relevant supporting documents^{/02-30/} against the VCS & CCB requirements^{/B01/} and applied methodology^{/B02/} and tools^{/B03/}, including the assessment of:

- ✓ Physical infrastructure including project area^{/04/}, eligible area^{/04/}, technologies (intervention) including Forest Management Plan ^{/06/} and processes of the CCB & VCS project
- ✓ Legal aspects of the project including host country regulations /26//28//30/
- ✓ Baseline scenario ^{/05//13/}
- ✓ Project's physical boundaries^{/07/} and stratification^{/06/},
- ✓ GHG sources, sinks and/or reservoirs^{/03/}.
- ✓ Growth and yield models ^{/03//05/},
- ✓ Stakeholder involvement/11//27/
- ✓ Environmental impacts,
- ✓ Baseline and additionality justification^{/05/}
- ✓ Community and Biodiversity aspect^{/12//16//17//20//21//22/}
- ✓ Monitoring plan^{/01/,10//23//24} and
- ✓ Leakage assessment ^{/30/}
- ✓ Estimated GHG removals^{/03/}
- ✓ Grouped project eligibility for the inclusion of PAI
- ✓ Eligibility of 1st PAI in line with grouped project inclusion criteria

The validation criteria follow the guidance documents provided by CCB & VCS including the following^{/B01/}: VCS Standard version 4.4, CCB Standard 3.1, CCB Program Definitions (v3.0 dated 21/06/2017), VCS Program Guide version 4.0, AFOLU Non- Permanence Risk Tool



version 4.0 and the applied VCS methodology VM0012: Improved Forest Management in temperate and Boreal Forests (LtPF) v1.2^{/B02/}

1.3 Summary Description of the Project

The project "Carpathia Forest Carbon Project" is a grouped project, falling under the Improved Forest Management- Logged to protected forest (IFM-LtPF) category and targeting the following VERRA certifications: Verified Carbon Standard (VCS) and Climate and Community & Biodiversity Standard (CCB).

The project is a grouped project activity being implemented in central Romania in the wider Făgăraş Mountains (Natura 2000 designated site), including the Piatra Craiului National Park and the Leaota Mountains. CCB & VCS PD^{/01/} (refer figure 9) outlines the geographic area ("Project Zone") in which project activity instances (PAIs) could be implemented as a part of the grouped project. The geographic area of the entire grouped project boundary as per the CCB & VCS PD^{/01/} is 324,719 ha.

The 1st PAI includes a total of 13 ATUs and three counties (Arges, Valcea, and Dombovita), with geographic area (including both eligible and non-eligible area) of 23,404 hectares. These are comprised of non-contiguous private lands/28/ that is under the control of the PP. The verified total eligible project area/09/ of the 1st Project activity instances (PAI) is 13,958 ha hectares. The CCB & VCS project has applied and demonstrated compliance with VCS approved methodology, VM0012: Improved Forest Management in temperate and Boreal Forests (LtPF) v1.2^{/B02/}. VVB confirms that the grouped project and the 1st PAI is a IFM-LtPF project and located in temperate and boreal domain^{/04/} and meets the VCS standards requirements for ownership^{/09//28/}. In the baseline scenario, there exist planned logging/05/. Furthermore, VVB confirms that the project area does not encompasses managed peatland forest/04/. VVB, through document review/04//06/, confirms that this IFM-LtPF project does not attribute to any change in total percentage of wetlands in the project area of 1st PAI. VVB further confirms that there is no application of organic or inorganic fertilizer in the project scenario as the interventions of the project is through combination of land acquisition and conservation agreements, as defined in the forest management plans/06/. The project does not envisage activity shifting leakage as provisional harvesting, as required by the forest management plans^{/06/}, are expected.

The project has defined both spatial and temporal project boundaries and leakage assessment has been done on national level^{/04//30/}. The selected carbon pools, under the project, are Aboveground Tree Biomass, Belowground Biomass, Dead wood^{/13/} and Wood products^{/13/}. The determination of baseline is done in accordance with section 6 of the applied methodology^{/B02/}. Furthermore, for quantification of GHG reduction and removal^{/03/}, PP has followed step 1 of section 8.1 for the stratification and demonstrated the criteria for the stratification in the CCB & VCS PD^{/01/}. Furthermore, PP has used EU CBM-CFS3 model^{/05//13/} (which is allowed by the methodology^{/B02/}) for the calculation of baseline emissions and project emissions. All the criteria including input of the model have been provided in the CCB & VCS PD^{/01/}, as required by the applied methodology^{/B02/}. CCB & VCS PD^{/01/} provides a detailed explanation on both activity and market shifting leakage and the same is deemed acceptable to the VVB. Furthermore, for ex-post monitoring, CCB & VCS PD^{/01/} contains information on the monitoring and sampling approach. VVB, during the on-site interviews^{/101-139/}, noted that PP has used Terrestrial LiDAR monitoring



approach (TLS) for the measurement of tree height, DBH and dead wood and litter, at the sample plots. VVB^{/23/}as witnessed a sample monitoring, using this Terrestrial LiDAR approach and found that it yields an accurate measurement which was further cross checked through ground truthing exercise by the VV team. The personnel^{/19/} involved in this monitoring are competent and VVB confirms that they followed the standardized protocol adequately.

Based on on-site inspection and interviews^{/101-I39/}, VVB confirms that the project aims for restoration and preservation of the forests located in the southeastern Carpathian Mountains of Romania. The initiative aims to safeguard both primary and secondary forests within five designated Natura 2000 network sites^{/01/}. The IFM-LtPF project, thus, also improves to an extent the detrimental secondary impacts of clear-cutting, spruce monocultures, and the degradation of riparian habitats.

The implementation of the 1st PAI has resulted in restoration and protection of forests in the project area by improved forest management (IFM) practices, that has led to protection of forest areas by reducing the logging as compared to the baseline scenario and through implementation of conservation management activities and has estimated GHG emission removal of 2,130,949 tCO₂e over the crediting period (09/08/2017 to 08/08/2057). The estimated removal rate^{/03/} of the project is 3.8 tCO₂e per hectare per year throughout the crediting period^{/01/03/}. Project proponent through a combination of land acquisition^{/09//28/} and conservation agreements^{/06/} implemented this conservation project i.e. the 1st PAI.

Based on on-site inspection and interviews^{//01-I39/}, VVB confirms ^{/12//16//17//20//21//22 /}that the project's community objectives are focused on improving livelihoods, raising awareness for forest conservation in local communities through the implementation of social and educational programs, and implementing a new economy based on a conservation enterprise program with the creation of jobs and training, developing tourism, small-scale farmers/producers and agricultural businesses based on biodiversity conservation. FCC has two main strategies/objectives to involve and raise awareness in the communities:

(1) to increase livelihoods in the local communities by establishing a new economy based on conservation, and

(2) to increase support for the conservation concept and acceptance of the protected area in local communities near the project area).

VVB, based on document review ^{/12//16//17//20//21//22/} and on-site inspection/interviews^{/101-I39/}, confirms the following:

- **Climate benefits**: The project would lead to significant greenhouse gas (GHG) emission reductions. These reductions would be achieved by avoiding the release of carbon that is typically associated with timber harvesting, road construction, and other forestry activities that would occur in the baseline or business-as-usual scenario.

Community benefits: The project is focused on improving livelihoods, raising awareness for forest conservation in local communities through the implementation of social and educational programs, and implementing a new economy based on a conservation

enterprise program with the creation of jobs and training, developing tourism, small-scale farmers/producers and agricultural businesses based on biodiversity conservation^{/16/}.

- **Biodiversity benefits:** The project pursues the conservation and restoration of habitats and wildlife conservation and management through the reintroduction of key species such as the European Bison and Beavers and the management of conflicts between wildlife and humans^{/16/}.

2 VALIDATION PROCESS

2.1 Audit Team Composition (*Rules* 4.3.1)

Team Leader/ Technical Expert: Amit Anand is the team leader, technical expert and 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. Amit has extensive work experience on working on land use & forestry projects under GS, CDM and GS projects globally.

Team member: Isha Kapoor 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 completed her Bachelor of Science in Forestry and Natural Resources and has also undergone a certified Carbon Forestry Course from University of Freiburg, Germany. She has around 4 years of work experience in GHG mechanism including development of standards and methodology for an India-based GHG program. Isha has extensive work experience on working on land use & forestry projects, including ARR, REDD, IFM and WRC, under VCS, CDM and GS projects globally.

Trainee Assessor: Ahalee Bhowmik is a forestry post-graduate and has knowledge & skills for the land use & forestry sector. She has more around 1 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 WRC, ARR, IFM & REDD projects and relevant forestry and/or other land use experience in the region.

Technical reviewer: Vikash Kumar Singh is a qualified lead assessor and internal technical reviewer for validations and verifications GHG mitigation projects under CDM, VCS and GS and actively been involved in the validation and verification and internal technical review 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 validation and verification of carbon offset projects including the accreditation requirements for the VVBs. He has also undergone a certified Carbon Forestry Course from University of Freiburg, Germany. Currently, he is employed with Carbon Check in the capacity of Executive Director and Compliance Officer. Vikash has extensive work experience on working on land use & forestry projects under VCS, CDM and GS projects globally. Vikash has extensive work experience of working in VCS, CDM and GS projects in East Africa, as well as Central America.



Table III: Team Composition:

Sr.					Affiliation	Involvement in			
No.	Role	Type of Resource	Last Name	First Name	(e.g., name of central or other office of VCS Validator and Verifier or Outsourced entity)	Desk/document review	On-site inspection	Interviews	Validation findings
1.	Team Leader /Technical Expert	IR	Anand	Amit	CCIPL	×	×	×	×
2.	Team member	IR	Kapoor	Isha	CCIPL	X			×
3.	Trainee Assessor	IR	Bhowmik	Ahalee	CCIPL	X			×

Table IV: Technical reviewer and approver of the Validation report:

Sr. No.	Role	Type of Resource	Last Name	First Name	Affiliation (e.g., name of central or other office of VCS Validator and Verifier or Outsourced entity)
1.	Technical Reviewer	IR	Singh	Vikash Kumar	CCIPL
2.	Approver	IR	Singh	Vikash Kumar	CCIPL

2.2 Method and Criteria

The validation of the project includes the following assessment activities:

- ✓ Contract review & signing
- ✓ Appointment of team members based on competencies
- ✓ Assessment Planning
- ✓ Desk review on CCB & VCS PD/01/ and other documents/01-17/
- ✓ Interviews with the stakeholders^{//01-I39/} and local stakeholder meeting(s) during the on-site inspection^{//01-I39/}
- ✓ Reporting and recording of assessment.
- ✓ Findings and their closure APPENDIX 2: FINDINGS LOG
- ✓ Additional validation activities
- ✓ Submission of final report

A project specific validation plan has been developed to guide the auditing process to ensure efficiency and effectiveness. The purpose of the validation plan is to present a risk assessment for determining the nature and extent of validation procedures necessary, thus reducing the risk of auditing error to a reasonable level.

The validation of the CCB & VCS PD^{/01/} has been conducted in compliance against the requirement documents as stated in APPENDIX 1: LIST OF DOCUMENTS

Table V: VCS Validation Time Frame:

Milestone description	Time
Date of contract signing with the VVB	16 th August 2023
On-site Audit	25 th September to 29 th September 2023

2.3 Document Review

During the document review, CCIPL has applied standard auditing techniques to assess the quality of information provided. The validation is performed primarily based on the review of the CCB & VCS PD^{/01/} and the supporting documentation^{/01-30/}.

For validation, this process includes:

- A review of data and information presented to verify completeness and consistency in accordance with VCS Standard (version 4.4)^{/B01/} and CCB Standard (version 3.1) requirements^{/B01/}.
- A review of the project description^{/01/} and monitoring methodology^{/B02/}, paying particular attention to the applicability conditions of the methodology^{/B02/}, baseline and additionality^{/01/}related requirements
- A review of the monitoring plan and the project's compliance with relevant VCS and CCB criteria.

2.4 Interviews

The table VI below describes the on-site inspection/ interview/^{I1- I39/} process and further identifies personnel, including their roles, who were interviewed and/or provided information additional to that provided in the CCB & VCS PD/^{01/} and any supporting documents/^{01-30/}.

During the on-site inspection^{/I01-I39/}, some farmers/landowners have been interviewed on the CCB & VCS project and project implementation.

S. No.	-	Intervi	ew		Date	Subject	Team	
	No.	Last name	First name	Affiliation			Member	
	I-1	Promberger	Barbara	1001	25 th September 2023 to 29 th September 2023	 PP's roles and responsibilities. Baseline scenario. Community 	Amit Anand	
	I-2	Promberger	Christoph	FCC Executive Director	25 th September 2023 to 29 th September	BaselineBiodiversity Baseline		

Table VI: Project representatives and stakeholders interviewed.



		1			
				2023	 Project implementation. Future project plans. Organization structure, roles and responsibilities Non- Permanence risk Assessment Ownership of land titles Ownership of carbon credits Project start date
I-3	Veridiano	Karen	FORLIANCE GmbH	25 th September 2023 to 29 th September 2023	 Project implementation. Future project plans. Organization structure, roles a responsibilities Non-Permanence risk Assessment Ownership of lan titles Ownership of carbon credits
I-4	Luisa vasquez	Maria	FORLIANCE GmbH	25 th September 2023 to 29 th September 2023	 CCB aspects of project
I-5	A stănică	Daniel	FCC Human Resources Manager	25 th September 2023 to 29 th September 2023	 FCC's policies and procedures Minimum wage requirement in Romania Employment generation from the project
I-6	Săvulescu	loana	FCC Legal Director	25 th September 2023 to 29 th September 2023	 Legal Aspects of the project Land agreements Agreements with other entities Land tenure and carbon rights



1-7	Zotta	Mihai	FCC Conservatio n Director	25 th September 2023 to 29 th September 2023	 Forest management plans Pre-project planned logging/harvesti ng in the project areas Non- permanence aspects including discussion pest infestation, forest fire, natural disturbance CCB aspects of project
I-8	Tarnea	Georgia	FCC Chief Financial Controller	25 th September 2023 to 29 th September 2023	 Financial viability of the project including discussion on permanence
I-9	Cozma	Rosana	FCC Administrativ e Manager	25 th September 2023 to 29 th September 2023	 Discussion on FCC's policies and procedures
I-10	Pop oliviu	Grigore	FCC Biologist	25 th September 2023 to 29 th September 2023	CCB aspects of project
I-11	Losif	Ruben	FCC Wildlife Researcher	25 th September 2023 to 29 th September 2023	
I-12	Adrian	Aldea	FCC Wildlife Manager	25 th September 2023 to 29 th September 2023	
I-13	Bărbieru	Andreea	Translations Interpreter	25 th September 2023 to 29 th September 2023	Translator used by the VVB



I-14	Pinnschmidt	Arne	FORLIANCE GmbH	25 th September 2023 to 29 th September 2023	 Ex-ante and expost carbon calculation Discussion on Carbon Budget Model of the Canadian Forest Service (CBM CFS3 Discussion on all input data, output data, and model parameters/as sumptions used for exante estimate Discussion on ex-post input (based on monitoring based on terrestrial LIDAR) Uncertainty Analysis
I-15	Cicu	Adriana	Deputy Mayor, Lerești	26 th September 2023	Local stakeholder consultation/com munity
I-16	Botezatu	Alexandra	City Hall employee, Lerești	26 th September 2023	aspect/benefits from the project
I-17	Toader	Marian	Mayor, Lerești	26 th September 2023	
I-18	Dascălu	Bogdan	Lerești Football Club "The Bisons"	26 th September 2023	
I-19	Daniel	Pana	Lerești "PARDON" beer brewery	26 th September 2023	
I-20	Diaconescu	Constantin	FCC	26 th September 2023	 CCB aspects of project



I-21	Moraru	Mihai	Mayor, City Hall Moroieni	27 th September 2023	 Local stakeholder consultation/c ommunity aspect/benefit s from the project Ongoing grievance mechanism
I-22	Cristina	Tronaru	Employee City Hall Moroieni	27 th September 2023	 CCB aspects of project
I-23	Florea	Sergiu	Stakeholder	27 th September 2023	 Local stakeholder consultation/c ommunity aspect/benefit s from the project Ongoing grievan mechanism
I-24	Şerban	Elena	FCC Forest Engineer	26 th September 2023 to 27 th September 2023	 Monitoring of forest inventory
I-25	Voinescu	Codruț gheorghe	FCC Chief Ranger	26 th September 2023 to 27 th September 2023	 Monitoring of forest inventory
I-26	Horațiu	Hanganu	Geoprocessi ng, Land Agent for FCC	28 th September 2023	 Land procurement process Title ownership Legal aspect of land purchase
I-27	Forogau	Petre sidor	Forest Design	26 th September 2023 to 27 th September 2023	 Discussion of sampling plots Discussion on terrestrial LiDAR for monitoring Discussion on
I-28	Sergiu Constantin	Florea	Forest Design	25 th September 2023 to 29 th September 2023	 Discussion on ground truthing activity during the monitoring Results of ex- post monitoring



I-29	Simion	Aron	Euro Sim Construct Star SRL, Stakeholder	26 th September 2023	CCB aspects of project	
I-30	Mitiriță	Alina	Kim Top Travel SRL	26 th September 2023	-	
I-31	Ștefănescu Iaura	Georgiana	Reviving Rucăr Association (NGO)	26 th September 2023		
I-32	Vorovenci	Nicolae Cosmin	"Roadele Munților" (local food hub coordinator)	26 th September 2023		
I-33	Şerban	Elena	Forest engineer, FCC	26 th September 2023		
I-34	Voinescu codruț	Gheorghe	Chief Ranger, FCC	26 th September 2023	Project management	
I-35	Ţoanţă	lonuț claudiu	Senior Ranger, FCC	26 th September 2023		
I-36	Zotta	Mihai	Conservatio n Director FCC	26 th September 2023	CCB aspects of project	
I-37	Lupuleț	Nicolae	Livestock owner and Junior Ranger, FCC	26 th September 2023		
I-38	Nicolae ioana	Alexandra	Manager Local Gastronomic Point, Rucăr, Local stakeholder	26 th September 2023		



CCB Version 3, VCS Version 3

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2.5 Site Inspections

The joint validation and verification on-site inspection^{//01-I39/} has been conducted from 25th September 2023 to 29th September 2023. A ground truthing of the project area has been conducted to assess baseline scenario and project scenario during the on-site inspection^{//01-I39/} and members of the CCIPL team visited selected sample plots within 1st PAI by the VVB and confirms pre-project scenario was activities that include harvesting, livestock, firewood, hunting, agriculture, tourism, and conservation through on-site interviews^{//01-I39/}.

Sampling/Validation Plan

In order to ensure a complete, transparent and timely execution of the validation task, the team leader has planned the complete sequence of events necessary to arrive at a substantiated final verification opinion. Various tools have been established in order to ensure an effective assessment planning.

Step 1- Identification of Materiality threshold

As per the section 4.1.8 of the VCS Standard version 4.4,

"The threshold for materiality with respect to the aggregate of errors, omissions, and misrepresentations relative to the total reported GHG emission reductions and/or removals shall be five percent for projects and one percent for large projects."

Table VII: Materiality threshold selected:

Applicable threshold level	Threshold	Category
	1 %	Emission reductions or removals for registered large scale project activities achieving a total emission reduction or removal more than 300,000 tonnes of CO ₂ e per year
	5 %	Emission reductions or removals for registered small-scale project activities achieving total emission reductions of <300,000 tons of CO ₂ e per year

Based on the review of the CCB & VCS $PD^{/01/}$ the GHG removals from the project have been estimated as <300,000 tCO₂e/year. Hence, the applied materiality threshold would be 5%.

Step 2- Identification of risks, their level and assessment

On the basis of the risk analysis the validation has been planned in accordance with the latest applicable version of Guideline: "Application of materiality in validations". The risk assessment



has been used in developing the validation and evidence-gathering plans. Any input into the risk assessment shall be recorded.

The risk assessment output may address how the validation is planned with respect to the following:

- GHG emissions SSRs.
- boundaries.
- data management details.
- management controls.

Table VIII: Risk, their level and assessment:

	Risk that could lead to material errors,		ssment of the tential risk	Assessment of the records/information/interview		
No.	omissions or misstatements	lustitication		with personnel to check controls/ mitigation measures		
1.	CCB & VCS project activity requirements Adherence to CCB & VCS rules and requirements including those related to AFOLU and applicable category i.e., IFM	High	This corresponds to high risk since compliance with the CCB & VCS rules and requirements is critical for the project.	The risk has mitigated by reviewing the CCB-VCS PD and supporting documents ^{/1-30/} thoroughly in compliance with each section of VCS template instructions and CCB Standard v3.2 & VCS Standard, v4.4.		
2.			grouped project, the evidence of project ownership, in respect of each project activity instance, held by the project proponent from the respective start date of each project activity instance shall be assessed, hence, VVB considers this as medium risk.			
3.	Baseline methodologyAdherence to selectedbaseline protocol as pertheappliedmethodology,VM0012Version1.2andapplicabilityandtemporal boundaries.	High	This corresponds to high risk since the applied methodology, VM0012, Version 1.2 includes complex process of	The risk has mitigated by reviewing the evidence for pre- project scenario <i>i.e.</i> , by avoiding the release of carbon associated with timber harvesting, road building, and other forestry operations including avoidance of poaching, illegal cutting, illegal deforestation, and		



	Time period (for e.g.,	Medium	baseline determination. Project shall	overexploitation over the past decades before project initiation. These activities destroyed the shelter of various wild orchid species in the project area. VVB will confirm the same by observation and interviews ^{//01-I39/} during the on- site inspection. The risk has mitigated by
	project start date, start date of crediting period and length of crediting period) covered by Project Report		meet the VCS requirements for time period such as validation is being carried within five years	reviewing the evidence pertaining to the project start date including the time stamped pictures, contracts, and receipts.
4.	Adherence to the VCS requirements for start date, crediting period and length of the project		of the project start date (section 3.8.4 VCS Standard v4.4). In the opinion of the VVB this risk is considered as medium.	
5.	Baseline Scenario and Additionality Accuracy of baseline scenario identification and compliance with eligibility for positive list for additionality demonstration as per VCS requirements, applied methodology, and additionality tool.	High	The project must adhere to sections 3.5.8 – 3.5.13, 3.12 & 3.13 of VCS Standard, version 4.3 as well as section 2.1 and 8.1 of the applied methodology VM0012, Version 1.2.	The risk has mitigated by interviews ^{/I01-I39/} and review of evidence of baseline and additionality during on-site inspection.
6.	Baseline assertion Accuracy of baseline assertion	Medium	Considering the project activity, applying the methodology VM0012 v1.2, the risk for the baseline assertion including the compliance with determination of schedule of activities in the baseline scenario as stated in the methodology, is	The risk has mitigated by reviewing systematic sampling, source data and calculations



			considered as medium.	
7.	Correctness of source of data used for Emission reduction estimation/calculation. Accuracy of default/ex- ante fixed values and allometric equations used for the ex-ante carbon calculation.	High	As per the applied methodology, various sources for the data and parameters can be used, including proxies, field- collected data, published values, default factors, models, or, IPCC emission factors. This forms a high risk for overall carbon removals from the project.	The risk has mitigated by assessment of all sources, sinks and reservoirs that are included in the project report during the on-site inspection ^{//01- 139/} .
8.	Emission reduction estimation including future estimate / calculation. Accuracy of default/ex- ante fixed values and allometric equations used for the ex-ante carbon calculation.	Medium	PP has used various sources for the data including proxies, field- collected data, published values, default factors, models, or, IPCC emission factors. Furthermore, accuracy in equations and formulas applied in the spreadsheet has material impact on the carbon removals from the project. This forms a medium risk for overall carbon removals from the project.	This risk has mitigated by cross- checking emission reduction calculation spread sheet including all baseline emission, project emission, leakage emission and final emission reduction calculation.
9.	Monitoring Plan Monitoring of the project monitoring parameter as	High	Due to the complexity of the applied methodology,	The risk has mitigated by reviewing the measurement, calculation, and management /sampling plan of monitoring
	per the CCB & VCS		as well as	parameter during the on-site



	rules and requirements and verification of applicability of section 4 & 9 of the methodology including monitoring approach for area forested, stratum-wise area, area of sample plots, diameter and possibly heights of trees in sampling lots, monitoring of project implementation		sampling design, the risk is considered as high. The applied methodology and associated tools call for monitoring approach for area forested, stratum-wise area, area of sample plots, diameter and possibly heights of trees in sampling lots, monitoring of project implementation.	inspection ^{/I01-I39/} , as per the applied methodology.
10.	CCB & VCS project description Completeness and correctness of project description.	Medium	Since the applied methodology has multiple components, the appropriate description of all the aspects is pertinent. Hence, in the opinion of VVB, this risk is considered as medium.	The risk has mitigated by reviewing adherence of the CCB & VCS PD to the actual site condition for e.g., the existence of the project; project start date; GHG inventory of sources and sinks; sources and sinks; records kept on site.
11.	Non-Permanence Risk Accuracy of assessment of permanence of carbon stock and buffer credits. This includes. This includes the assessment of a non- catastrophic reversal in line with Sections 3.2.20 of the VCS Standard, v4.4.	High	Since this is a grouped project, developed privately by the members of (FCC, Sanatate & Natura) and managed (Alimax, SC Romfor Sustainable Forestry SRL, SC Wildland SRL) by Foundation Conservation Carpathia, the risk of permanence due to various	The risk has mitigated by cross- checking each and every risk affecting the permanence nature of carbon stock as per the non- permanence risk tool with evidence provided by the PP. The project management plan (including implementation plan) & ownership of land, roles & responsibility was checked during the on-site inspection/ ^{101- 139/} and through document review.



			factors such as	
			harvesting, illegal logging, poaching, unplanned and fuelwood removals, illegal wood transports etc. is High.	
12.	Leakage Identification of source of project emissions including leakage due to burning of woody	High	Since the project includes adoption of Improved Forest Management and the baseline of the project is associated with timber harvesting, road building, and other forestry operations, in the opinion of VVB, this risk corresponds to high category.	The risk has mitigated by confirming the pre-project scenario through on-site inspection and interviews ^{/I01-I39/} that there is no displacement of pre-project activities due to project implementation and by reviewing the market leakage, leakage risk assessment and leakage discount factor as per the VCS Standard v4.4 requirements. Foundation Conservation Carpathia foresees to impact positively not only on the communities inside the first project activity instance (project area) but also the communities inside and beyond the project area
13.	Project Area and Eligibility Assessment of eligibility of land and calculation of area for each geographic area specified in the PD.	High	This corresponds to high risk since eligibility and clearance of native ecosystems (within the 10- year period prior to the project start date) is a critical requirement of the applied methodology. This also has material impact on overall carbon removals from the project.	The risk has mitigated by interviewing the contractors of the project implementation and by further reviewing documents to cross check the land-use pattern and temporal boundaries of the project. On- site inspection ^{//01-139/} of sample sites and review of project management plan.
14.	Participation anyunder GHGProgramGHGRisk of double counting	High	Since the project is implemented by the local community	The risk has mitigated by reviewing agreement of PP with land ownership proof, proof for waiver of carbon credits by the other entities along with



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of project credits	or	carbon	of land owner of o credits including project's existence other program correspor	and carbon in any GHG		project	on	other
			a hi category.	•				

Sampling approaches during validation:

No sampling approach has been used by the VVB.

2.6 Public Comments (*Rules* 4.6)

A finding has been raised regarding the public comments, which has been resolved and VVB, relying on the information from the Verra Search page, affirms that the project underwent a 30-day public comment period, spanning from August 3, 2023, to September 2, 2023. There were no comments received during this stipulated period.

2.7 Resolution of Findings

The objective of the validation is to resolve any outstanding issues (issues that require further elaboration, research or expansion) which has been clarified/corrected prior to final VVB's conclusions on the project's baseline, monitoring plan from the CCB & VCS PD^{/01/} and subsequently the project implementation, monitoring practices and material discrepancies identified during the validation are addressed either as CARs, CLs or FARs ^{APPENDIX 2: FINDINGS LOG}.

Corrective Action Requests (CAR) are issued, where:

✓ mistakes have been made with a direct influence on project results requiring adjustments of the VERs in monitoring report.

✓ applicable methodological specific requirements have not been met.

A Clarification Request (CL) is used where additional information is needed to fully clarify an issue or where the information is not transparent enough to establish whether a requirement is met. A Forward Action Request (FAR) has been issued, where:

 \checkmark the actual project monitoring and reporting practices requires attention and /or adjustment for the consecutive verification period, or

✓ an adjustment of the MP is recommended.

In the context of FARs, risks have been identified, which may endanger the delivery of highquality GHG removals in the future, i.e., by deviations from standard procedures as defined by the MP. Therefore, such aspects should receive a special focus during the consecutive verification. A FAR may originate from lack of data sustaining claimed GHG removals.

The VVB on every issue raised during the validation process has used the table format given below:



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CAR/CL/FAR	Section no.	Date:		
Description of CAR/CL	/FAR			
PP response				
FF Tesponse				
Documentation provided by PP				
VVB assessment		Date:		

A total of 00 (Zero) FAR, 17 (Seventeen) CARs, and 17 (seventeen) CLs had been raised, all of which have been satisfactorily closed. Please refer to APPENDIX 2: FINDINGS LOG below for the details of the FARs/CARs/CLs.

2.7.1 Forward Action Requests

00 (Zero) forward action request raised during the validation, for the benefit of subsequent project audits.

3 VALIDATION FINDINGS

3.1 Summary of Project Benefits

VVB, based on document review ^{/12//16//17//20//21//22/} and on-site inspection/interviews^{/101-139/}, confirms the following:

- **Climate benefits**: The project would lead to significant greenhouse gas (GHG) emission reductions. These reductions would be achieved by avoiding the release of carbon that is typically associated with timber harvesting, road construction, and other forestry activities that would occur in the baseline or business-as-usual scenario.
- Community benefits: The project is focused on improving livelihoods, raising awareness for forest conservation in local communities through the implementation of social and educational programs, and implementing a new economy based on a conservation enterprise program with the creation of jobs and training, developing tourism, small-scale farmers/producers and agricultural businesses based on biodiversity conservation^{/16/}.
- **Biodiversity benefits:** The project pursues the conservation and restoration of habitats and wildlife conservation and management through the reintroduction of key species such as the European Bison and Beavers and the management of conflicts between wildlife and humans^{/16/}.

VVB verified that the potential benefits provided in the CCB & VCS PD^{/01/} are plausible and appropriate.



3.2 General

3.2.1 Summary Description of the Project (G1.2)

The project is a grouped project activity being implemented in central Romania with geographic area of 324,719 ha. The 1st PAI includes a total of 13 ATUs and three counties (Arges, Valcea, and Dombovita), with geographic area of 23,404 hectares and verified total eligible project area^{/09/} of 13,958 ha hectares.

The CCB & VCS project has applied and demonstrated compliance with VCS approved methodology, VM0012: Improved Forest Management in temperate and Boreal Forests (LtPF) v1.2^{/B02/}. VVB confirms that the grouped project and the 1st PAI is a IFM-LtPF project and located in temperate and boreal domain^{/04/} and meets the VCS standards requirements for ownership^{/09//28/}.

The project has defined both spatial and temporal project boundaries and leakage assessment has been done on national level^{/04//30/}. The selected carbon pools, under the project, are Aboveground Tree Biomass, Belowground Biomass, Dead wood^{/13/} and Wood products^{/13/}. The determination of baseline is done in accordance with section 6 of the applied methodology^{/B02/}.

Based on on-site inspection and interviews^{//01-I39/}, VVB confirms that the project aims for restoration and preservation of the forests located in the southeastern Carpathian Mountains of Romania. The initiative aims to safeguard both primary and secondary forests within five designated Natura 2000 network sites^{/01/}. The IFM-LtPF project, thus, also improves to an extent the detrimental secondary impacts of clear-cutting, spruce monocultures, and the degradation of riparian habitats.

The implementation of the 1st PAI has resulted in restoration and protection of forests in the project area by improved forest management (IFM) practices, that has led to protection of forest areas by reducing the logging as compared to the baseline scenario and through implementation of conservation management activities and has estimated GHG emission removal of 2,130,949 tCO₂e over the crediting period (09/08/2017 to 08/08/2057). The estimated removal rate^{/03/} of the project is 3.8 tCO₂e per hectare per year throughout the crediting period^{/01/03/}. PP through a combination of land acquisition^{/09//28/} and conservation agreements^{/06/} implemented this conservation project i.e. the 1st PAI.

Based on on-site inspection and interviews^{//01-I39/}, VVB confirms ^{/12//16//17//20//21//22} /that the project's community objectives are focused on improving livelihoods, raising awareness for forest conservation in local communities through the implementation of social and educational programs, and implementing a new economy based on a conservation enterprise program with the creation of jobs and training, developing tourism, small-scale farmers/producers and agricultural businesses based on biodiversity conservation. FCC has two main strategies/objectives to involve and raise awareness in the communities:

(1) to increase livelihoods in the local communities by establishing a new economy based on conservation, and

(2) to increase support for the conservation concept and acceptance of the protected area in local communities near the project area).

VVB, based on document review ^{/12//16//17//20//21//22/} and on-site inspection/interviews^{/101-I39/}, confirms the following:

- **Climate benefits**: The project would lead to significant greenhouse gas (GHG) emission reductions. These reductions would be achieved by avoiding the release of carbon that is typically associated with timber harvesting, road construction, and other forestry activities that would occur in the baseline or business-as-usual scenario.
- **Community benefits:** The project is focused on improving livelihoods, raising awareness for forest conservation in local communities through the implementation of social and educational programs, and implementing a new economy based on a conservation enterprise program with the creation of jobs and training, developing tourism, small-scale farmers/producers and agricultural businesses based on biodiversity conservation^{/16/}.
- **Biodiversity benefits:** The project pursues the conservation and restoration of habitats and wildlife conservation and management through the reintroduction of key species such as the European Bison and Beavers and the management of conflicts between wildlife and humans^{/16/}.

Project type and category

The grouped project falls under Sectoral Scope 14, Agriculture, Forestry, and Other Land Uses (AFOLU). The project follows an Improved Forest Management (IFM) approach from Logged to Protected Forest (LtPF) within this category.

Technologies and measures implemented

VVB confirms that, PP, through a combination of land acquisition^{/09//28/} and conservation agreements^{/06/} implemented this conservation project i.e. the 1st PAI. The project also creates unique opportunities to develop nature-based enterprises.

Eligibility of Project

Based on the review of CCB & VCS PD^{/01/}, supporting evidence^{/04/} and on-site inspection/interviews^{/101-I39/}, VVB has assessed the eligibility requirements for VCS & CCB Standard^{/B02/} (VCS general criteria, CCB general criteria and IFM criteria) and methodology applied^{/B01/}, as stated below:

Table IX (a): Assessment of project's eligibility as per VCS Standard, V4.4

VCS Eligibility Criteria ^{/B02/}		VVB Assessment		
1.	Project Activity DO NOT convert native ecosystems or degrade hydrological functions to generate GHG credits	VVB confirms that, PP, through a combination of land acquisition ^{/09//28/} and forest management plans ^{/06/} implemented this conservation project i.e. the 1 st PAI. This does not entails any conversion of native ecosystem or degradation of hydrological function; checked and confirmed by the VVB during on-site		



		inspection/ interviews/101-I39/ , VVB further confirms
		that the areas were not cleared of the native
		ecosystem to create GHG credits.
		Based on the review of Forest/ Non- Forest Analysis
	If clearing or conversion of land	Report ^{/04/} , forest management plans ^{/06/} and
2.	by the project activity was done, it	analysis of GIS and remote sensing shapefiles ^{/04/} ,
2.	took place at least 10 years prior	VVB confirms that there was no conversion of land
	to the proposed project start date.	by the project activity has been done in the last 10
		years.
		Based on the on-site inspection/interviews/101-139/,
	If the AFOLU project area was	review of CCB & VCS PD ^{/01/} and and analysis of GIS
2	drained or converted, such	and remote sensing shapefiles ^{/04/} , forest
З.	draining, or conversion took	management plans ^{/06/} ; VVB has ascertained that
	place prior to 1 January 2008	the project area has not been drained or converted
	place prior to realidary 2000	due to implementation of the project.
		In compliance with the CCB & VCS PD, the start date
		of the project activity is 9 th August 2017 ^{/14/} .
		$\begin{bmatrix} 0 & 1 & 0 \end{bmatrix} \begin{bmatrix} 0 & 0 & 0 \\ 0 & 0 & 0 \end{bmatrix} \begin{bmatrix} 0 & 0 & 0 \\ 0 $
		VVB confirms that the project complies by this VCS
		requirement as the project proponent has obtained
		an extension from Verra for the validation of this
		project which is till 10 November 2023 as checked by
		reviewing the VERRA website:
		https://registry.verra.org/app/projectDetail/VCS/3280
		This excerpt of the exemption letter from VERRA:
		<i>"Verra grants an exemption from Section 3.8.5 of the</i>
		VCS Standard, v4.4, to project 3280 as the project
		proponent had limited control.
		<u>Next steps:</u>
	Project Activity is requesting for	The project must complete validation by 10
4.	registration within five years of	November 2023, failing which the project cannot
	the project start date	request registration.
		Exampliana are granted by Varra and a same by same
		Exemptions are granted by Verra on a case-by-case
		basis and do not form the basis of, or set a precedent for, future exemption request approvals or denials.
1		This letter will be uploaded to the Verra Registry as a public document.
		Background to the exemption request:
		This letter is in reference to your exemption request
		submitted to Verra on 29 June 2023. It is our
		understanding that FORLIANCE GmbH (authorized
		representative), on behalf of the project proponent,
		Fundatia Conservation Carpathia (FCC), is
		requesting an exemption from Section 3.8.5 of the
		VCS Standard, v4.4, for the Carpathia Forest Carbon
		Project (ID3280). The project start date is 10 August
		2017; therefore, the project must complete validation
		by the updated deadline of 09 May 2023.
		, , , , , , , , , , , , , , , , , , ,
L	1	1

understood that Carpathia Forest Carbon Project could not meet the requirement to complete validation within the updated timeframe due to the accessibility challenges faced by the project owners in this grouped project during the winter months of 2022; subsequently having to incorporate terrestrial lidar systems (TLS) to collect the forestry data. Thus, the project proponent had to delay the validation."
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Table IX(b): Assessment of project's eligibility as per CCB Standard, v3.0

CCB Eligibility Criteria ^{/B01/}		VVB Assessment/12//16//17//20//21//22/	
1	Project Activity shall have specific, measurable and distinct climate objectives	Based on review of forest management plans ^{/06/} , CCB & VCS PD ^{/01/} and on-site interviews ^{/101-139/} , the project includes the distinct and measurable climate objectives. Climate benefits include GHG emission reductions by avoiding the release of carbon associated with timber harvesting, road building, and other forestry operations expected to be carried out in the baseline (business-as-usual) scenario. Hence, VVB has confirmed the project climate objectives.	
2	Project Activity shall have specific, measurable and distinct Community objectives	Based on review of CCB & VCS PD/ ^{01/} , on- site interviews/ ^{101-139/} and supporting document/ ^{12/} , the project includes the distinct and measurable community objectives. Community benefits objectives are focused on improving livelihoods, raising awareness for forest conservation in local communities through the implementation of social and educational programs, and implementing a new economy based on a conservation enterprise program with the creation of jobs and training, developing tourism, small-scale farmers/producers and agricultural businesses based on biodiversity conservation. Hence VVB has confirmed the project has specific, measurable and distinct community objectives.	
3	Project Activity shall have specific, measurable and distinct Biodiversity objectives	Based on review of CCB & VCS PD ^{/01/} , on- site interviews ^{/I01-I39/} and supporting document ^{/12/} , the project includes the distinct and measurable biodiversity objectives ^{/16/} . Biodiversity benefits includes the conservation and restoration of habitats and wildlife conservation and management through the reintroduction of key species such as the European bison and beavers and the management of conflicts between	



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	wildlife	and	humans.	Hence	VVB	has	
	confirm	ed the	project bic	odiversity	object	ives.	

Table IX(c): Assessment of project's eligibility as per VCS AFOLU Category

Improved Forest Management (IFM) ^{/B01/}		VVB Assessment	
1.	Eligible IFM activities are those that increase carbon sequestration and/or reduce GHG emissions on forest lands managed for wood products such as sawtimber, pulpwood and fuelwood by increasing biomass carbon stocks through improving forest management practices. The baseline and project scenarios for the project area shall qualify as forests remaining as forests, such as set out in the 2019 Refinement to the 2006 IPCC Guidelines for National GHG Inventories, and the project area shall be designated, sanctioned or approved for wood product management by a national or local regulatory body (e.g., as logging concessions or plantations)	VVB confirms that, PP, through a combination of land acquisition ^{/09//28/} and forest management plans ^{/06/} implemented this conservation project i.e. the 1 st PAI. VVB confirms that the project complies with the IFM requirements as the project includes Improved Forest Management (IFM) practices that convert the logged forests to protected forests (LtPF).	
2.	Logged to Protected Forest (LtPF): This category includes practices that reduce net GHG emissions by converting logged forests to protected forests. By eliminating harvesting for timber, biomass carbon stocks are protected and can increase as the forest re-grows and/or continues to grow. Harvesting of trees to advance conservation purposes (e.g., the removal of diseased trees) may continue in the project scenario	VVB confirms that the project entails converting logged forests to protected forests ^{/04//05/06/} .	

Project proponent and other entities involved in the project

In line with the CCB & VCS PD^{/01/}, project proponent and other entities are listed below:

Table X: Project Proponent and Other Entities:

Name	Title/Organization/Community	Role
Barbara Promberger- Fuerpass	Fundatia Conservation Carpathia (FCC)	Project Proponent
Karen Veridiano	FORLIANCE GmbH	Project Participant

Project start date

In accordant with the section 3.7 of VCS Standard v 4.4/B01/,

"The project start date of an AFOLU project is the date on which activities that led to the generation of GHG removals are implemented (e.g., preparing land for seeding, planting, changing agricultural or forestry practices, rewetting, restoring hydrological functions, or implementing management or protection plans)."

In compliance with Section G1.9 Of CCB Standard v 3.1^{/B01/}, "Defined as the start of implementation of activities that will lead to the generation of GHG emission reductions or removals".

Based on the CCB & VCS PD^{/01/}, the first project activity instance started on 9th August 2017, this is the date when the harvesting activities were ceased for the purpose of the full protection and restoration of forests in the south-eastern Carpathians Mountains. Project proponent has provided evidence to support the start date. VVB based on review of provided evidence^{/14/} confirms that the start date of the project activity is appropriate and in line with the VCS requirement. A finding has been raised regarding the evidence of project start date and which has been clarified by the PP. VVB, based on the supporting documents^{/14/}, confirms that PP has provided the relevant evidence for the project start date i.e., 9th August 2017 undersigned by Promberger Christoph and Franz Johannes, with ID no. 7650610080016. VVB has also validated the Legal documents^{/14/} confirming the cessation of harvesting activities in eligible areas. This marks the initiation of conservation efforts aimed at generating greenhouse gas emission reductions. During the project's validation process, VVB examined the Decision of the Executive Directors of the Foundation Conservation Carpathia (FCC), specifically Decision No. 18 dated 09 August 2017.

VVB affirms that the aforementioned decision outlines the commitment of FCC's Executive Directors to place all lands acquired, both before and within a 100-year period starting from 09 August 2017, under comprehensive and exclusive protection. This strategic move is intended to fulfill the organization's goals and objectives. Given that FCC is the designated project proponent possessing management and carbon rights, the legal document in question signifies the commencement of activities related to the Improved Forest Management (IFM) project. In essence, these activities encompass conservation efforts that have the potential to yield significant reductions in greenhouse gas emissions.

Project scale and estimated GHG removals

VCS project activities less than or equal to 300,000 tonnes of CO₂e per year are considered as project level.

Based on the review of CCB & VCS PD/01/,

The 1st PAI of this grouped project will remove an average 53,273 tCO₂e^{/03/} per year throughout the first 40 years after project implementation. Hence, VVB confirms the grouped project is classified as a project level.

Project location

Based on the CCB & VCS PD^{/01/}, the grouped project area is situated in the south-central Romanian Carpathians. The area is represented by the Fagaras Mountains group, including the lezer-Papusa mountains, and is bordered by the Olt River in the West and North and Piatra Craiului Mountain to the East. VVB has verified the location and boundary through review of GIS shapefiles^{/04/} and through on-site inspection^{/101-139/}.

3.2.2 Physical Parameters (G1.3)

The following steps has been taken by the VVB to assess the basic physical parameters of the grouped project and the 1st PAI:

- Review of the VCS-CCB PD^{/01/}
- other supporting documents^{/04/}



- Literature review/13/
- on-site inspection/interviews/I01-I39/

The verified physical parameters are as below:

Geology:

The Leaota Mountain is characterized by the predominance of crystalline schist. Most of the peaks are carved in the Leaota crystalline series, corresponding to the facies of green schists, represented mainly by sericite chlorite schists.

Relief:

The Fagaras Mountains are building a towering chain from East to West, holding the highest peak in Romania, Moldoveanu, 2,544 m high. The rugged ridges of the northern valleys are parallel to each other and do not exceed 10 kilometers in length, while in the South, the hills are smoother and often 30 to 40 kilometers long.

Hydrology:

The project area holds a dense network of rivers. On the Northern side of the Fagaras Mountains, all rivers are tributary to the Olt River. The rivers of the South side and Leaota flow into the Arges basin. Streams on the North side are short, fast, and shallow and flow almost equidistant parallel northwards, whereas the waters of the southern area are more extended and more profound. The Fagaras Mountains have small glacial lakes, the largest being Balea Lake (4.65 ha). However, there also are large artificial lakes for energy production: Vidraru (covering ca. 900 ha and holding 465 000 m3 of water and Pecineagu, with an area of 182 ha and 62 000 m3 of water.

Climate:

The southern Carpathians have a layer climate corresponding to the altitudes:

- Temperate climate below 1,000 meters altitude
- Mountain climate between 1,000 and 2,000 meters
- Alpine climate over 2,000 meters

Land cover:

Vegetation in the area targeted by this project occurs in distinct altitudinal zones.

- Deciduous woods predominantly beech (*Fagus sylvatica*), mixed with sycamore (*Acer pseudoplatanus*) and elm (*Ulmus glabra*) cover a large share of the lower slopes between 850 m 1,250 m.
- Higher up, fir (*Abies alba*) and spruce (*Picea abies*) show up with increasing percentage to finally take over at 1,450-1,500 m.



- Pioneer species such as rowan (*Sorbus aucuparia*), goat willow (*Salix caprea*), or birch (*Betula pendula*) can be found at all altitudes,
- *Picea abies* and the Swiss pine (*Pinus cembra*) form the alpine tree line at heights of 1,800-1,850 m,
- Above 1,800 m, the realm of subalpine bushes begins, featuring the dwarf pine (*Pinus mugo*), Carpathian rhododendron (*Rhododendron kotschyi*), bilberry (*Vaccinium myrtillus*) and juniper (*Juniperus communis*).

VVB based on assessment above, confirms that the PD has sufficiently described the physical parameters of the grouped project area and 1st PAI, in compliance with CCB & VCS PD template instructions.

3.2.3 Social Parameters (G1.3)

The following steps has been taken by the VVB to assess the social parameters of the grouped project and the 1^{st} PAI:

- Review of the VCS-CCB PD/01/
- FCC Annual reports^{/07/}
- Literature review/13/
- on-site inspection/interviews/101-139/

VVB, confirms that the area of the 1st PAI is limited to where FCC and partners own land which encompasses 13 ATUs and three counties (Arges, Valcea, and Dombovita).PP has conducted socio-economic impact study in 2021 in 24 administrative-territorial units (ATU). The study showed that local economic operators are only moderately dependent on exploiting natural resources in the national economy and local communities. In terms of land ownership^{/28/}, the dynamic of the ownership situation began to stabilize as most of the land started to be restituted in 1991. After 2001 the process was accelerated, leading to a mosaic of owners:

- State public domain 31%
- Communes public domain 14%
- Private individual owners 24%
- Private entities (associations, companies) 24%
- Unknown situation 7%

VVB confirms that the PD^{/01/} sufficiently describes the social parameters of the project area^{/04/}.

3.2.4 Project Zone Map (G1.4-7, G1.13, CM1.2, B1.2)

The project zone as provided in the VCS CCB PD has been verified by reviewing documents ^{/04/}, including the review of relevant information on the location of stakeholders, location of communities, onsite climate impacts, other stakeholder impact, and areas where biodiversity impacts^{/16/}.



Furthermore, VVB confirms that the details on impacted area and stakeholders have been defined reasonably, as verified by on-site inspection^{/101-139/} and review of Project Design Report^{/01/}, included within the PD^{/01/} provided by PP.

Any human settlements, found within grouped project boundary, are illustrated in project map^{/04/}. Based on review of PD, KML files^{/04/}, maps of project area and further on-site inspection interviews^{/101-139/}, VVB confirms that project zone is valid and in line with Section G.1 of CCB standards v3.1^{/B01/}.

3.2.5 Stakeholder Identification (G1.5)

The following steps has been taken by the VVB to assess the process of stakeholder's identification and also to check analysis used to identify stakeholder's and the stakeholder groups:

- Review of the CCB & VCS PD/01/
- Review of stakeholder's consultation meeting records/27/
- Interviews with the PP and the sample stakeholders

This assessment focuses the assessment of the step wise approach adopted by FCC for identifying the relevant stakeholders associated.

Step 1: Brainstorm with key informants to list stakeholders.

VVB during on site inspection interviews confirmed that PP has conducted an initial brainstorming session, as a first step to identify all affected stakeholders of the project. The list has been provided in the VCS-CCB PD by the PP; checked and confirmed by the VVB.

Step 2: Analysis of the level of influence and importance of each group

The PP has categorized stakeholders based on their level of importance and influence. According to section 2.1.8 of the CCB & VCS PD, potential stakeholders, listed above, that could influence or be affected by the project, were identified.

Step 3: Describe the interests, roles, capacity and motivation of stakeholders to participate in the project.

This is the third step opted by the PP as confirmed during the on site inspection.

The assessment team of CCIPL concludes the process ^{/27/} used by the project to identify all stakeholders ^{/27/} who are impacted by the project activities is sufficient.

3.2.6 Stakeholder Descriptions (G1.6, G1.13)

As assessed in the section above, the assessment team confirms that all the stakeholders and stakeholder groups /27/ that are included/may be included in the project were found appropriate as verified during the onsite interviews.

The identified stakeholders are:

- Carpathia Employees
- Local town halls (Rucar, Valea Mare Pravat, Nucsoara, Leresti, Arefu, ...)
- Local public
- Forest Guard (Brasov, Pitesti, Arges)



- Gendarmerie
- Ministry of Environment, Water and Forests
- Romanian Water Authority (Apele Romane)
- National Agency for Protected Areas (ANANP)
- Environmental Protection Agencies (Brasov, Arges)
- Environmental Guard (Brasov, Arges)
- Landowners Associations
- Livestock Husbandry Associations
- Local schools
- Roma communities
- Forest Services/Administrations
- Hunting Associations
- Logging companies/sawmills
- Local farmers and producers
- Tourism sector (guesthouses, gastronomic points, etc.)
- Social NGOs
- Conservation NGOs
- National and international universities

Overall VVB confirms the stakeholder description is valid and in line with section G.3 of CCB standards v3.1.

3.2.7 Sectoral Scope and Project Type

Based on the review of CCB & VCS PD^{/01/}, the grouped project is an AFOLU (Agriculture, Forestry and Other Lands Use) project under the sectoral scope 14 "Agriculture, Forestry and Other Land Use" and falls specifically under the IFM-LtPF category. The project is developed under the Verified Carbon Standard (VCS) and Climate, Community & Biodiversity Standards (CCB) of Verra.

3.2.8 Project Activities and Theory of Change (G1.8)

The following steps has been taken by the VVB to validate the causal relationships or theory of change that is linked to the project activity's predicted climate, community and biodiversity benefits:

- Review of the CCB & VCS PD^{/01/}
- Review of Forest Management Plans^{/06/}
- Literature Review^{/13/}
- Biodiversity reports^{/16/}
- Community Outreach/17/
- Review of stakeholder's consultation meeting records/27/
- Interviews with the PP and the sample stakeholders

The theory of change analysis is discussed in the CCB & VCS PD^{/01/} and the continuous baseline situation has been demonstrated and the CCB & VCS PD^{/01/} discusses the expected outputs, outcomes and impacts due to the project implementation.

VVB based on assessment above confirms that the theory of change in the CCB & VCS PD^{/01/is} accurate, complete, and provides an understanding of the nature of the project and how it will achieve its climate, community, and biodiversity objectives.

3.2.9 Sustainable Development

Table XII: the project's sustainable development contributions and its assessment by the VVB has been provided below:

SDG Goal	VVB Assessment
 SDG Goal 2: Zero Hunger Target: 2.1 By 2030, end hunger and ensure access by all people, in particular, the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round Food Security Indicator: Number of producers involved in Food Hub Number of communities engaged 	VVB, based on the CCB & VCS PD ^{/01/} , confirms that PP involves more than 100 small-scale local producers and work with 32 communities surrounding the Fagaras Mountains; supporting documents ^{/17/20/21/} have been provided by PP to substantiate the selected SDG goals, including a comprehensive list of employments along with their corresponding positions and the documented training records for each. This has been checked and confirmed by the VVB.
 Number of beneficiaries of Food for Elders SDG Goal 4: Capacity building: 	The following steps has been taken by the VVB to assess
 Target: Capacity building Indicator: Number of training workshops provided for employees (full-time, part-time, or temporary) Number of people/rangers trained Number of workshops with schools or children (for educational programs) Number of children participating in the educational programs 	 the SDG goal: Review of the CCB & VCS PD^{/01/} Training records^{/20/} including community outreach program^{/27/} Interviews with the PP and the sample stakeholders



CCB Version 3, VCS Version 3

SDG Goal 8: Employment:	The following steps has been taken by the VVB to ass the SDG goal:					
Target: Employment	Review of the CCB & VCS PD ^{/01/}					
 Indicator: total number of full-time jobs created Total number of part-time jobs created SDG Goal 13: Climate Action: Target: Climate Change Mitigation Indicator: Tons of greenhouse gas emissions avoided or removed. 	 Employment records ^{/21/,/22/} Training records^{/20/} including community outreach program^{/27/} Interviews with the PP and the sample stakeholders VVB confirms that project will prevent the release of 2,130,949 tCO₂e into the atmosphere. The following steps has been taken by the VVB to assess the SDG goal: Review of the CCB & VCS PD^{/01/} ER spread sheet ^{/02/} Forest Management Plan^{/06/} Interviews with the PP and the sample stakeholders 					
 SDG Goal 15: Life on Land: Target: 15.8 By 2020, introduce measures to prevent the introduction and significantly reduce the impact of invasive alien species on land and water ecosystems and control or eradicate the priority species Natural Resource and Sustainable Forest Management Indiactor: Red list index Forest areas managed sustainably for conservation Large carnivores' protection (abundance) Bison & Beavers (abundance) 	 VVB confirms that the project activities will safeguard life on land in Romania by converting logged forests to protected forests. By the end of the project, FCC estimates to have 35,000 ha under complete protection. The following steps has been taken by the VVB to assess the SDG goal: Review of the CCB & VCS PD^{/01/} ER spread sheet ^{/02/} Forest Management Plan^{/06/} Interviews with the PP and the sample stakeholders 					

3.2.10 Implementation Schedule (G1.9)

As verified in the section above, the project start date is 09th August 2017.

Table XIII: Milestone(s) in the project's development and implementation:

Date	Milestone(s) in the project's development and implementation
2023	Launch the Junior Ranger Programme



2023	Launch the Beech Forest Community Project in Nucsoara
2023	Open bison/beaver visitor center
01 April 2024	First additional forest owner joins in the carbon finance project
30 June 2024	First monitoring report on large carnivore (wolves, bears, lynx)
30 June 2024	Carpathia Fund (grant program for local entrepreneurs) launched
2024	Obtain the 7th hunting concession
01 October 2025	Another 250 ha of clear-cuts restored
31 December 2025	Three (3) new wildlife hides built
31 December 2025	Food hub working with a minimum of 50 producers
2025	Start reintroduction of 2 vulture species
2025	Open second environmental education center
2026	Get for the first time over 1000 visitors per year through Travel Carpathia
30 June 2029	Monitoring report on large carnivore (wolves, bears, lynx) updated

VVB confirms that the key dates and milestones in the project's development and implementation are valid and appropriate.

3.2.11 Benefits Assessment and Crediting Period (G1.9)

During the crediting period and project lifetime quantitative and qualifying studied on biodiversity^{/16/}, climate and community will be done periodically.

Based on the review of CCB & VCS PD^{/01/} the carbon crediting period of project Carpathia Forest Carbon Project for the current grouped project, the crediting period will be of 40 years and 00 months. The period starts on 09th August, 2017, and ends on 08th August, 2057.

Based on review of PD^{/01/}, other supporting documents^{/04/} and on-site inspection/interviews^{/101-I39/}, VVB conclude benefit assessment and crediting period is valid and appropriate.

3.2.12 Risks to the Project (G1.10)

CCB & VCS PD^{/01/} has identified all potential risks (likely natural and human-induced risks to the expected climate, community, and biodiversity benefits during the project lifetime) for this project and also provided the intended mitigation measures.



Based on review of PD^{/01/}, other supporting document^{/06/} and on-site inspection/interviews^{/101-139/}. VVB conclude risks to the expected climate, community, and biodiversity benefits^{/16/} during the project lifetime are assessed accurately and the mitigation measures are in place. VVB confirms that the overall risks to the project are low, no major risks have arisen that may cause any loss of project benefits for the local community, climate and biodiversity^{/16/}, so that long-term viability is assured.

3.2.13 Benefit Permanence (G1.11)

Foundation Conservation Carpathia aims to establish a protected area in the Carpathian Mountains, often referred to as the "European Yellowstone." The core activities of this project involve land acquisition, protection, and ecological restoration. The primary focus of the Carpathia Forest Carbon Project is the conservation and protection of forests in the South-Central Carpathian Mountains of Romania.

Regarding biodiversity benefits^{/16/}, species reintroduction will be based on examples of best practices in Romania and other European countries. The creation of the Fagaras National Park is attractive from a biodiversity^{/16/} perspective and for its economic and social benefits. Therefore, VVB further Based on the analyses and projections performed in a socio-economic study, confirms that the creation of Fagaras National Park would drive, in the long-term, the growth of the local economy, additional employment opportunities, as well as multiple positive social changes (improvement in local and community infrastructure, development of the local entrepreneurial ecosystem, enhanced social inclusion, etc.

The assessment team of CCIPL verified the benefit-permanence activities through the desk review and during the onsite interviews and considers the measures will likely achieve the sustainable development goals of the project and that these will last beyond its lifetime.

3.2.14 Financial Sustainability (G1.12)

As confirmed during the onsite inspection, Foundation Conservation Carpathia (FCC) maintains strong, ongoing partnerships with various private foundations that provide financial support for project activities and operational needs.

VVB based on review of PD^{/01/} and on-site inspection and interview^{/(1-139/} confirms that financial mechanisms can provide adequate funds for project implementation to achieve the project's climate, community and biodiversity benefits^{/16/}.

3.2.15 Grouped Projects

1) Eligibility Criteria for Grouped Projects (G1.14)

Based on the review of CCB & VCS PD^{/01/} and on-site inspection/ interviews^{/101-139/}, VVB confirms that the project proponent has provided a comprehensive set of eligibility criteria for the Carpathia Forest Carbon Project to allow multiple project activity instances to be established within the project area. Inclusion of additional project activity instances in the project area must adhere to the following eligibility criteria.

- The project activity instance must meet the applicability conditions defined in the most recent version of the VCS methodology VM0012 v1.2 Improved Forest Management in Temperate and Boreal Forests (LtPF), or conditions specified in the applicable methodology selected.
- The new project activity instance must utilize all technologies or measures used in this document and must satisfy the conditions of the selected methodology. Any novel technologies utilized shall be clearly identified and defined.
- Technologies and monitoring elements shall be applied in a similar fashion as outlined in this project description document.
- The project activity instance will utilize the same baseline scenario as described in Section 3.1.4 or a baseline scenario appropriate to the specified methodology for the geographic area.
- The project activity instances will have characteristics with respect to additionality that are consistent with the initial instance of the project and geographic area. Such characteristics include financial and technical parameters or barriers.
- Additional activity instances must also satisfy inclusion requirements as outlined in the VCS Standard V4.4, Section 3.6.
- The new instances of the project are subject to the same processes for stakeholder engagement and respect for rights to lands, territories and resources including free, prior and informed consent.

VVB confirms that definition of eligibility criteria complies with paragraph 3.6.16 & 3.6.17 of the VCS Standard version $4.4^{/B01/}$ and meet the requirements of G1.14 of CCB standard version $3.1^{/B01/}$. A finding has been raised regarding the VVB, based on the review of the revised CCB & VCS PD, confirms that PP has included eligibility criteria following the requirements from the VCS Standard (v4.4).

2) Scalability Limits for the Grouped Projects (G1.15)

Due to the conservation nature of the Carpathia Forest Carbon Project, no scalability limits have been established. As a group project, the inclusion of new areas (that comply with the eligibility criteria) for the carbon project will not entail negative impacts on the community or biodiversity components^{/16/} of the project. On the other hand, if more forest areas are under protection/conservation there will be more net positive impacts on community and biodiversity^{/16/}. VVB, based on the revised CCB & VCS PD and on-site inspection, confirms that due to the conservation nature of the Carpathia Forest Carbon Project, no scalability limits have been established.

3) Risk Mitigation Approach for Grouped Projects (G1.15)

Scalability limit does not exist for the grouped project. Measures for risk to climate, community and biodiversity^{/16/} are not assessed as expansions beyond limits is not foreseen.



3.2.16 Land-Use Scenarios without the Project (G2.1)

Based on the review of CCB & VCS PD^{/01/} the project area^{/04/} before the project implementation the region featured a diverse range of ecosystem types, each facing different threats and pressures. The forest ecosystems within the project zone, including beech forests, mixed mountain forests, and coniferous pine-spruce forests, were home to numerous rare, endangered, and endemic species. Unfortunately, these species had been enduring the detrimental effects of illegal deforestation and overexploitation for several decades prior to the project's initiation. These activities resulted in the destruction of critical habitats for various wild orchid species, such as the Bird's-nest Orchid (*Neottia nidus-avis*), Narrow-leaved Helleborine (*Cephalanthera longifolia*), Common Spotted Orchid (*Dactylorhiza*), and many others.

For the ecosystems of the alpine and subalpine zone, such as heaths, shrubs, scrubs, and grasslands, overgrazing activities posed the most significant threat before project initiation. The aquatic and riparian ecosystems have been negatively affected by alien invasive species, gravel extractions, exploitation of surrounding forests, and the authorization of micro-hydro plants or other hydro-technical works before project initiation., the land has not been cleared of native ecosystems within 10 years of the project's start date. VVB based on review of provided evidence^{/14/} confirms that the start date of the project activity is appropriate and in line with the VCS requirement. VVB, based on the on-site inspection and by reviewing the shapefiles, confirms that the areas were not cleared of the native ecosystem to create GHG credits. A finding has been raised regarding the evidence of project start date and which has been resolved by the PP. VVB, based on the supporting documents^{/14/}, confirms that PP has provided the relevant evidence for the project start date i.e., 9th August 2017 undersigned by PROMBERGER CHRISTOPH CHRISTOPH FRANZ JOHANNES, with ID no. 7650610080016

The total volume allocated for harvest between the non-contiguous private lands eligible for certification under VM0012 :

- Primary wood cuttings in minor patch cuts: 16,107 m³/year.
- Secondary wood products (thinning and early-stage cutting): 9,280 m³/year.
- Select conservation cuttings: 5,468 m³/year.
- Hygiene cuttings: 4,983 m³/year.

3.2.17 Most-Likely Scenario Justification (G2.1)

Based on the review of the CCB & VCS PD^{/01/} and the Foundation Conservation Carpathia's Master Plan^{/10/}, the root cause of the conservation challenges in the project area can be attributed to the absence of viable economic opportunities for local communities. In the absence of such opportunities, the most probable land use scenario in the region was characterized by the ongoing threat of virgin forests being logged, overgrazing of alpine grasslands, inadequate wildlife management, and potentially destructive development projects under consideration.

Based on review of PD^{/01/} and on-site inspection/ interviews^{/101-I39/}, VVB concludes that the mostlikely land-use scenario is valid and appropriate.

3.2.18 Community and Biodiversity Additionality (G2.2)

Community: Based on the review of CCB & VCS PD^{/01/} and on-site inspection/ interviews^{/101-139/} VVB confirms that in terms of community benefits, FCC has a strong commitment to raise awareness about forest conservation and ecosystem services; to develop a new economy based on green business and helping small-scale producers to be formally registered and access to markets and to encourage local production. For this, a Food Hub program with local producer and a craft beer brewery are the most outstanding benefits. Additionally, educational and capacity building programs with community members and for the most part with children are thought to be part of the community outreach program.

Biodiversity: Based on review of CCB & VCS PD^{/01/} and on-site inspection/interviews^{/101-139/} confirms that the main biodiversity^{/16/} benefit of the Carpathia Forest Carbon project is the conservation of the virgin or quasi-virgin mixed mountain forest in the Fagaras Mountains. The conservation of the forest will allow the maintenance of various species of plants, wildlife and vital ecosystem functions. Additionally, FCC pursues the reintroduction of key species such as the European Bison and Beaver that play a crucial role to maintain the balance in the forest ecosystem.

In the absence of the Carbon Project the above-mentioned scenario will be the future scenario and the biodiversity^{/16/} and community benefits (described below) would not have occurred.

3.2.19 Stakeholder Access to Project Documents (G3.1)

VVB confirms that the project proponent has a complete framework for disseminating the project to the communities. The PP correctly explains stakeholder participation and adequately presents the summary of stakeholder access mechanisms to project documents.

In compliance with the CCB & VCS PD^{/01/} The complete CCB project documentation will also be published in Verra's VCS and CCB's website for public comments. Later on, a summary in the local language (Romanian) will be provided to employees and local communities interested. One of the features of the Carpathia Forest Carbon Project, as a private project held on private lands, is that there are no settlements (communities) within the project area. The employees will have access to the project description and monitoring reports through the department leaders, who will inform the employees regularly (weekly or monthly) of any new developments or projects within FCC. In addition, information between departments is shared and discussed via internal communication channels coordinated by the communication team. Also, the Forest Carbon Project was discussed with department leaders, feedback was entirely positive, and no concerns were expressed.

Further VVB confirms that the project's stakeholder engagement plans and practices meet the requirements of section G3.1 of CCB Standards v3.1. To meet the requirement, the project demonstrated that it made project documentation accessible to communities and other stakeholders^{/27/}.A finding has been raised regarding the stakeholder identification, meeting invitation letter, presentation, minutes of meeting, list of stakeholders, summary of the feedback received, original attendance list of stakeholder meeting which was been resolved successfully by PP. VVB, based on the review of the supporting documents^{/27/}, confirms that PP has provided the participation list, Stakeholder presentation, socialization and consultation procedure which



involves the stakeholder identification, mapping and involvement of Government and Regional Authorities, Local Communities, Resource Managers, etc. along with the Potential negative impacts and risks and Grievance and redress procedure, Operational procedure for accessing and dealing with requests from the general public, procedures for solving problem and SOP Communication with Local Stakeholders. PP has supplied ample information to conclude the resolution of the finding.

3.2.20 Community Costs, Risks and Benefits (G3.2)

The project proponent clearly explains how relevant and adequate information on the potential costs, risks, and benefits for the communities, identified through a participatory and transparent process, has been provided to the communities.

Based on the CCB & VCS PD^{/01/}, The informational meetings with the different stakeholders were explained the potential costs, risks, and benefits to the surrounding communities and key stakeholders from implementing the project. The project's activities are designed to conserve the natural forest, restore degraded lands, and improve communities' livelihoods. Foundation Conservation Carpathia has extensive experience in the project region and, working in different environmental networks and with the counties and government, contributes to reducing potential risks and costs of the project implementation. Following the communication channels presented in table 4, FCC has presented the benefits of the carbon project as well as the risks, costs and potential negative impacts.

Based on the on-site inspection/interviews^{/101-139/} and supporting document^{/27/}, the VVB confirms that the communities and project workers that they understood the information provided and their participation in the project.

3.2.21 Information to Stakeholders on Validation and Verification Process (G3.3)

In line with CCB & VCS PD^{/01/}, Foundation Conservation Carpathia's employees and other stakeholders are informed about the Verified Carbon Standard (VCS) and Climate, Community, and Biodiversity Standard (CCB) validation and verification process. The communication methods used depend on the relevance of the stakeholder.

VVB reviewed^{/27/} and discussed the content of the local consultations^{/27/} and meetings and confirmed that the CCB & VCS validation process was discussed with community members in a variety of meetings. VVB concludes that the measures taken, and the communication methods used to inform the communities are in accordance with the requirement.

3.2.22 Site Visit Information and Opportunities to Communicate with Auditor (G3.3)

In accordance with the CCB & VCS PD^{/01/}, FCC's employees and other stakeholders are informed about the external entity – Verification and Validation Body - that is going to the field to evaluate the project. The communication channels one-on-one discussions, Letters, leaflets, mass media, Letters and telephone calls were used to communicate about the publication of the project documents and the auditor's visit and the auditing process. The communication channels are defined according to the characteristics of the actors. Therefore, formal emails and letters from local authorities will be used to inform about the public comment period and the location of the



digital and physical documents. Finally, other governmental and non-governmental entities will be notified via e-mail or physical letter about the auditor's site visit on time before it takes place. Moreover, FCC will facilitate the auditor with any information required, potential communication with communities and other stakeholders, arrange any meeting in case needed, and provide all local support for the validation and verification events.

VVB based on on-site inspection/interviews/101-139/ confirms the section to be valid and appropriate.

3.2.23 Stakeholder Consultations (G3.4)

In consistent CCB & VCS PD^{/01/} Community Groups and Other Stakeholders^{/27/} have influenced project design and implementation. Even though the project implemented by Foundation Conservation Carpathia is held on private lands, the project aims to conserve and restore natural forests and involve the communities around the project area. Therefore, FCC firmly commits to involving the communities around the project areas through their social, educational, and conservation programs. Additionally, employees are recruited from the villages around the project area and therefore are by themselves a vital communication channel with other local stakeholders. Finally, the Forest Carbon Project was discussed with department leaders, feedback was entirely positive, and no concerns were expressed.

For example, the reintroduction of bison (European bison) and the beaver (Castor fiber) was preceded by surveys of the local public (yielding a positive attitude), and acceptance levels are being monitored. In addition, the intention to develop the Forest Carbon Project was positively received whenever discussed, creating awareness for the benefits of conserving large forest areas (protecting water resources, preserving the landscape/beauty, flood mitigation, etc.). Still, it is the tangible benefits (economic development opportunities, education, tourism) that people are most likely to engage with. This is also reflected in FCC's current socialization and information activities.

The PP has gone to considerable lengths to consult with local stakeholders and engage them in the project during the project development process. This is confirmed during the on-site inspection/ interviews/^{101-I39/} and reviewing of supporting documents/^{11/}. Hence, VVB concludes that adequate levels of information sharing have occurred.

3.2.24 Stakeholder Consultation Channels (G3.5)

Based on the CCB & VCS PD^{/01/}, PP has used Different communication channels are designed to exchange messages with the different types of actors involved. These are determined by the characteristics of the message, the kind of information, and the type of audience to which it is addressed.

Employees:

Information on project documents, implementation of activities, and monitoring will be communicated to each team through their supervisors, who will report on the progress of the carbon project at team meetings. In addition, department leaders will inform their team regularly (weekly or monthly) of any new developments or projects within Carpathia. Information between

departments is shared and discussed via internal communication channels coordinated by the communication team.

Communities around the project area:

Local communication is led by Forest and Wildlife rangers who interact daily with potentially affected individuals. Other project members, including the Conservation Enterprise Manager, Community Outreach and Communication Team, Legal and Finance Teams, Foresters, and Biologists, also engage with those interested or influenced by project activities.

Other institutions:

Government agencies (Ministry of Environment, Apele Romane, EPA, Agency for Protected Areas) will be informed via emails, reports, and letters or, in the case of specific requests via phone calls and one-on-one discussions (e.g., approvals of species reintroductions, wildlife conflict issues, building permits). Representatives of these bodies are usually invited to workshops and events and occasionally participate. Specific information on the intent and progress of the Forest Carbon Project has been sent via email.

Finally, FCC will keep informed on biodiversity^{/16/} and community-related project developments for all stakeholders who show interest in or will benefit from project activities. These stakeholders (Conservation NGOs, the Tourism sector, Local Farmers, and producers) will be informed using all forms of communication (one-on-one, print media, social media, newsletter). In addition, the project proponents also approach interested landowners' associations or private forest owners to inform and discuss the Forest Carbon Project as an alternative to current management.

VVB deems the stakeholder consultation channels/27/ described as valid and appropriate.

3.2.25 Stakeholder Participation in Decision-Making and Implementation (G3.6)

In line with the CCB & VCS PD^{/01/}, Foundation Conservation Carpathia's team has extensive experience working in the project zone. It is familiarized with the local communities, community groups, and other stakeholders based on cultural aspects, interests, socio-economic development, etc. This enables FCC to enhance effective participation and take measures that guarantee a gender balance participation when needed. The foundation has a record of community-related activities, from social and economic support to education programs and support in sustainable development planning. Currently, FCC is establishing an association with eight town halls to initiate the planning and zoning process for a future protected area in a participatory approach.

This is confirmed during the on-site inspection/ interviews^{//01-I39/} with the local stakeholders. Hence, VVB concludes that project proponent has been and will enable effective participation in culturally appropriate and gender sensitive manner with all communities.

3.2.26 Anti-Discrimination Assurance (G3.7)

Based on the review of CCB & VCS PD^{/01/} and review of FCC's SOPs^{/23/}, The project proponent is not involved in, or complicit in, any form of discrimination. Foundation Conservation Carpathia



(FCC) and all its associated entities do not participate in or are complicit in any form of discrimination. FCC's practices and values are aligned with the European Law to Prevent and Eliminate Discrimination. This law is regulated by the Constitution Article, which is responsible for the normative development of the principle of non-discrimination. Its objective is to prevent and eliminate all forms of discrimination against any person and promote equal opportunities and treatment. This declaration is under the provisions of the FCC Rules of Procedure, in particular with the provisions of article 2.1.11.3, and applies to all employees, collaborators, and other persons carrying out activities in collaboration with or for the FCC.

VVB interviewed^{/11-139/} the stakeholders who participated in the implementation of the project during the site visit. According to all the information received VVB confirms that Anti-Discrimination can be assured.

3.2.27 Feedback and Grievance Redress Procedure (G3.8)

Based on the review of CCB & VCS PD^{/01/} and FCC's SOPs^{/23/}, Foundation Conservation Carpathia is firmly committed to identifying and resolving any concern or doubt related to the Carpathia Forest Project. For this reason, FCC has developed a process for receiving, hearing, responding to, and attempting to resolve grievances within a reasonable period.

Principles & Requirements:

- FCC reports external grievances.
- FCC encourages external stakeholders to report grievances.
- The FCC team maintains confidentiality.
- The FCC team acts promptly, respectfully, and without retaliation.
- The FCC learns from grievances and remedies.

FCC undertakes to examine the complaints and requests of interested persons/customers and to resolve them within 30 days from the registration date. It is noted that, depending on the complexity of the intervention, this deadline may be extended by a maximum of 48 hours. An exception to this rule is when a case of force majeure prevents the problem/malfunction/malfunctioning that is the subject of the complaint/request from being remedied within the time limits referred to in the previous paragraph.

VVB concludes the feedback and grievance procedure is properly addressed. A finding has been raised regarding the process of the grievance mechanism and has been resolved by PP. VVB, after reviewing the supporting documents^{/22/}, confirms that PP has furnished all pertinent records of the FCC Grievances Mechanisms. These mechanisms are openly publicized and accessible through the FCC webpage. Individuals have the means to contact FCC through its general email address (info@carpathia.org) or via the official Facebook page.

3.2.28 Worker Training (G3.9)

Based on the review of CCB & VCS PD^{/01/} and records of training^{/20/}, Foundation Conservation Carpathia (FCC) performs annual ranger training, usually implemented by the partner organization ProPark, a capacity-building provider for protected areas. The training ensures that rangers get a basic understanding of ecological contexts and include a diversity of topics such as (1) ecological footprint, (2) trophic chains, (3) impact of reintroductions, (4) protected area management, (5) resilience of ecosystems, (6) food chains, etc. Trainers are selected experts, partially also senior rangers of FCC, who participated in the lectures (e.g., beaver experts on reintroduction issues). VVB, based on the supporting documents^{/22/} confirms that PP has provided all the pertinent documents which includes the Forest Design Standard Operating Procedures, Forest Inventory and Monitoring, Training Manual & Plans (Forest Monitoring, Forest Inventory Methods, Use of GIS Data and Mobile Mapping, Quality Control and Assurance, Safety Protocols, Environmental Considerations), Training methods, Quality Control/Quality Assurance and Data Archiving Procedures, Training Records, Competencies of Monitoring Personnel, Spatial Inventory Change Monitoring Procedures and Standard Operating Procedures (SOPs) for Terrestrial Lidar System (TLS).

3.2.29 Community Employment Opportunities (G3.10)

Following CCB & VCS PD^{/01/} and employment records^{/21/}, Foundation Conservation Carpathia's workers are selected based on the work description and applicant profile. Women and vulnerable and/or marginalized people are encouraged to apply and will be given a fair chance to fill positions for which they can be trained. No discrimination based on age, sex, marital status, ethnicity, social status or religious convictions, political ideas, and/or sexual orientation will be made. This was also confirmed during the on site inspection interviews^{//01-I39/} and based on review of FCC's SOPs^{/23/}.

Based on review of CCB & VCS PD^{/01/} and on-site inspection/interviews^{/101-I39/}, VVB confirms that the project provides equal employment to people from communities.

3.2.30 Relevant Laws and Regulations Related to Worker's Rights (G3.11)

Based on the CCB & VCS PD^{/01/} and FCC's SOPs^{/23/}, VVB confirms that the Foundation Conservation Carpathia complies with the Romanian Laws N° 53 (Labor code), N° 202 (on equal opportunities and treatment between women and men), N° 346 (on insurance against accidents at work and occupational diseases (as subsequently amended and supplemented), and other relevant regulations and laws listed in this document. VVB on the basis of supporting evidence^{/10/} confirms that the project meets applicable laws and regulations regarding workers' rights.

3.2.31 Occupational Safety Assessment (G3.12)

PP has identified the main risks in the forestry or restoration management and project activities the CCB & VCS PD^{/01/}.

VVB based on on site inspection interview confirms that FCC has internal rules and a code of conduct specifying RULES ON PROTECTION, HYGIENE, AND SAFETY AT WORK ^{/22/}. All employees receive training in protection and safety at work through a contracted, responsible



specialized company providing such services. The training includes general introductory training, carried out by representatives of a specialist company, plus on-the-job training carried out after the initial training by the direct manager of the workplace, which aims to present the risks and measures specific to the workplace.

VVB based on onsite interviews^{/I01-I39/} and supporting evidence^{/22/} confirms that the measures are designed to minimize project related risk.

3.2.32 Project Governance Structures (G4.1)

Based on the CCB & VCS PD^{/01/}, Foundation Conservation Carpathia (FCC) is the project proponent. FCC was founded in 2009 to establish a wilderness reserve in the Fagaras Mountains. FCC is an umbrella organization for several legal entities (hunting associations, forest service, landholding companies, accounting, and conservation enterprise companies) that implement the CARPATHIA project together. FCC is the implementation body of the carbon project.

FORLIANCE GmbH elaborates and oversees the project design based on the VCS and CCB guidelines. FORLIANCE GmbH supports companies, investors and cooperatives in the development of sustainable agricultural and forestry projects. Its core activities are the development, management and certification of land use projects as well as carbon trading and CSR consulting for companies. FORLIANCE highly qualified team and its 20 years track-record in developing, managing and certifying forest, agroforest and carbon forest projects worldwide. FORLIANCE GmbH assists project developers, development organizations and investors to create long term value for their assets.

VVB confirms through on-site inspection interviews^{//01-I39/} that the PD list the project personnel's and their responsibilities clearly, they all know their own roles and responsibilities.

3.2.33 Required Technical Skills (G4.2)

The CCB & VCS PD/01/ lists the key technical skills required to implement the project:

- Experience in the management of natural resources conservation projects.
- Experience in landscape restoration and rehabilitation of degraded habitats.
- Experience in wild species reintroduction, such as European Bison and Castor fiber.
- Ability to interact with different actors and stakeholders.
- Development of projects with rural populations.
- Development of economic alternatives/businesses.
- Experience in the development of carbon projects and environmental services.
- Experience in the evaluation and monitoring of biodiversity^{/16/}.
- Ability to manage property owners' geographical information systems and databases and generate all required cartographic analyses.

VVB verified that for each individual, experience and education and other qualifications are cited. The PPs and team have the skills necessary to require implementing the project successfully,



including community engagement, biodiversity assessment^{/12/} and carbon measurement^{/03/} and monitoring skills.

3.2.34 Management Team Experience (G4.2)

VVB has reviewed^{/19/} FCC's management team experience.

NAME & CHARGE	DESCRIPTION
Christoph Promberger Co-Founder and Executive Director	Christoph Promberger holds an MSc. in forestry and wildlife biology from Munich University. Since 2007, Christoph has been involved in various wildlife conservation programs. He has initiated conservation projects with co-partners in Romania, Croatia, Turkey, and Belarus. His work has included land conservation, community outreach, promoting ecotourism and biodiversity ^{/16/} in organic farming initiatives, research on species restoration, forest and carnivore management, and equestrian ecotourism. He has studied predator-prey relationships and conflict management between carnivores and livestock, developed ecotourism in the region and has been involved in over 50 television documentaries and over 200 international media reports.
Barbara Promberger-Fuerpass Co-Founder and Executive Director	Barbara Promberger holds an MSc. in biology/zoology from Graz and Vienna University in Austria. Her expertise lies in large carnivore research and management, protected area development and management, and forest ecosystem conservation. Since 2007, Barbara has initiated conservation programs in Romania, Armenia, and Belarus. Her work has included land conservation, community outreach, promoting ecotourism and biodiversity ^{/16/} in organic farming initiatives, research on species restoration, forest and carnivore management, and equestrian ecotourism. In 2003, Barbara, in partnership with her husband, Christoph Promberger, established Equus Silvania, which has since become the leading Romanian equestrian eco-tourism operator and has been involved in over 50 television documentaries and over 200 international media reports.
Mihai Zotta Conservation Director	Mihai earned a Forestry degree in 1991 from the Transylvania University in Braşov and worked six years as a forester in the Romanian Forest Service. The mismatch between traditional forestry and his personal values made his move to one of the first administrations of National Parks in Romania, Piatra Craiului National Park. He worked for six years in the team that created

the first 16 administrations of National Parks a
Natural Parks in Romania and became
member of the Scientific Councils of 7 Nation
Parks. In early 2010, he was nominated Direct
of the Directorate for Nature Conservation in t
Romanian Ministry of Environment. However,
the summer of 2010, he moved to the new
established FCC as its first employee to devel
field conservation activities. Today, Mil
oversees a department of 40 staff a
coordinates
administration/monitoring/restoration of t
27,000 ha of Carpathia's forest properties a
all wildlife protection and management on t
65,000 ha hunting concessions, which ha
been leased by the foundation.

Based on review of CCB & VCS PD^{/01/}/CVs^{/19/} and on-site interviews^{/101-I39/}, VVB concludes that the management team have the skills necessary to successfully manage this project so that to achieve the carbon emission reduction and CCB benefits.

3.2.35 Project Management Partnerships/Team Development (G4.2)

Based on the CCB & VCS PD^{/01/} the project proponent works with different partners organizations:

- ProPark Foundation (PPK) was founded in 2008 to address problems related to the protected area system in Romania. PPK is specialized in capacity building, education, and community outreach and is an FCC partner in the Endangered Landscapes Program (ELP). Additionally, PPK will be responsible for capacity building, stakeholder involvement, and coimplement dissemination actions with FCC.
- Conservation Capital (CC) is a UK-based company specializing in developing conservation enterprises. It cooperated with FCC on an EEA-funded conservation enterprise planning project and is a project partner in the Endangered Landscapes Program (ELP). CC is responsible for the guidance of the conservation enterprise program.
- Arges County Gendarmerie Inspectorate (Gendarmerie) is a regional law enforcement authority within the Ministry of Internal Affairs. It operates two mountain stations in the southern Fagaras Mountains with highly trained personnel for mountain rescue operations and wildlife protection. FCC has closely cooperated with the Gendarmerie on wildlife-related issues for over 6 years. Co-financing comes from its own sources.

Thus, based on review of PD^{/01/}, and doing further on-site inspection/interviews^{//01-I39/}, VVB concludes that no other organizations needed to support the project through partnerships, management team have the sufficient experiences to implement the project and already filled any gaps.

3.2.36 Financial Health of Implementing Organization(s) (G4.3)

Based on CCB & VCS PD^{/01/} and by checking the records of finances of FCC^{/27/}, VVB verified that the project proponent Foundation Conservation Carpathiais is a privacy and legally registered company. PP has its own legal entity to allow good governance and protect it against intoxication



dangers and liabilities from other projects. Based on review of PD^{/01/} and doing further onsite inspection/interviews^{/101-I39/}, VVB concludes that the financial health of the implementing organizations is verified, and they can ensure adequate financial support over the project lifetime. A finding was raised regarding the supporting documents of this relevant section and upon reviewing the supporting documents^{/27/22/}, VVB confirms that PP has supplied the necessary and pertinent documents as outlined in the CCB & VCS PD. Consequently, this leads to the resolution and closure of the finding.

3.2.37 Avoidance of Corruption and Other Unethical Behavior (G4.3)

Following the CCB & VCS PD^{/01/} and doing on site interviews^{/101-139/} and FCC's SOPs^{/23/}, VVB concludes that the PP and other project entities are not involved in any form of corruption. Foundation Conservation Carpathia and its subordinate entities are not involved or complicit in corruption, economic or social, bribery, fraud, favoritism, nepotism, etc. On the contrary, all the entities rely on the main elements of a corruption-resistant environment:

- **Integrity**: the behaviors and actions are consistent with moral and ethical standards that create a barrier to corruption. Ethics of integrity are enshrined in codes of conduct and conflict of interest policies for staff, covering issues such as vulnerability to political influence or vested business or professional interests.
- **Transparency**: FCC openly discloses information relating to rules, plans, processes, and actions. For instance, all forest purchases are public and have a period of public comments and reviews. In addition, the foundation has a record of community-related activities, from social and economic support to education programs and support in sustainable development planning.
- **Accountability**: FCC understands its role as forest protector to conserve endangered and unique habitats, preserve Biodiversity and tackle Climate Change.

3.2.38 Commercially Sensitive Information (Rules 3.5.13 – 3.5.14)

Based on the CCB & VCS PD^{/01/} no commercially sensitive information has been excluded from the public versions of the project documents^{/01/}. VVB deems it valid and appropriate.

3.2.39 Statutory and Customary Property Rights (G5.1)

As stated in CCB & VCS^{/01/} the grouped project, Foundation Conservation Carpathia's conservation strategy is based on purchasing lands for conservation. Additionally, partnership agreements with landowners have been signed for the carbon project. Therefore, FCC has the absolute right to access, manage and conserve all the resources within the project area. Based on the geospatial data^{/04/} and ownership documentation^{/09/28/} and onsite interviews^{/101-139/}, VVB, concludes that PP has clearly demonstrated the statutory and customer rights.

3.2.40 Recognition of Property Rights (G5.1)

Refer to assessment in 3.2.39 above. VVB verified that all property rights are recognized, respected and supported.

3.2.41 Free, Prior and Informed Consent (G5.2)

In conformity with the CCB & VCS PD^{/01/}, The project does not expect to involve land areas with conflict or affect property rights. The project involves landowners who voluntarily participate and can enroll in the project through partnerships agreements.

VVB after reviewing of the supporting evidence^{/09/} and through on-site inspection/ interviews^{/101-}^{139/} concludes the justification of PP as valid and in line with the requirements of standard^{/B01/}.

3.2.42 Property Rights Protection (G5.3)

The CCB & VCS project is developed in private lands acquired by legal and consensual agreements. Therefore, the project does not expect to involve activities that lead to involuntary removal or relocation of property rights holders.

Based on CCB & VCS PD^{/01/} and on-site interviews^{/101-139/}, VVB, concludes that the project does not result in the involuntary removal or relocation of property rights holders from their lands or territories and do not force rights holders to relocate activities important to their culture or livelihood as there were no residents located in the project area with most of suitable land for forest.

3.2.43 Illegal Activity Identification (G5.4)

In consistent with CCB & VCS PD^{/01/}, According to a survey from 2020, the illegal logging level has decreased from 250-300 m³ in 2016 and 2017 to 88 m³ in 2020, even though the area watched has increased in size. As a result of the survey, two theft cases were brought to court, and fines were handed out as outlined in the FCC Annual Report 2020.

The flora of the project zone could potentially experience a negative impact through illegal deforestation activities. To mitigate these potential negative impacts and to maintain and enhance the conditions for rare, endemic, and/or endangered plant species, the forest watch is established in the framework of the proposed project. The Carpathia Forest District Association manages the forest watch, covering almost 28,000 hectares. The area is split into 15 districts that 15 skilled and dedicated ranger's monitors.

Four management concessions (Râul Târgului, Stoenești, Izvoarele Dâmboviței, and Rucăr) are under leasehold of the Carpathia project, covering an area of over 78,000 hectares. The result of the wildlife management concessions is the ban on sport and trophy hunting and a stronger focus on resolving conflicts between wildlife and humans in rural villages. Surveys show that the wildlife numbers have increased due to the forest rangers' patrolling, especially for red deer as per the annual report.

Based on CCB & VCS PD^{/01/}, relevant document^{/10/} and further doing on-site inspection/interviews^{/I01-I39/}. VVB concludes that project's climate, community and biodiversity impacts^{/16/} will not be affected by the illegal activities.

3.2.44 Ongoing Disputes (G5.5)

Based on the CCB & VCS PD^{/01/}, The project activities are carried out in the Foundation Conservation Carpathia's private lands. Therefore, they hold or can prove legal title or right over the area. Thus, no project activities will be implemented in areas where land tenure cannot be demonstrated. Furthermore, a due diligence procedure is held before each land purchase to verify that the owner has legally obtained their land tenure title. Based on-site inspection/interviews^{/I01-I39/}, VVB concludes that no measures are needed and designed to resolve conflicts or disputes.

3.2.45 National and Local Laws (G5.6)

The CCB & VCS PD^{/01/} provides an extensive list of national and local laws and regulations and explains their applicability to the project and the way compliance with the law is achieved by the project where applicable.

Based on PD^{/01/} VVB concludes that the project is complying with relevant national and local laws and regulations.

3.2.46 Approvals (G5.7)

In compliance with the CCB & VCS PD^{/01/}, before any timber harvesting, the contractor or landowner must obtain a harvesting permit from the forest district. The guidelines for timber harvesting are further outlined in the Forest Code and the Ministerial Order 1540/2011 on harvesting rules updated. VVB concludes that the Foundation Conservation Carpathia holds all the approvals from the appropriate authorities.

3.2.47 Project Ownership (G5.8)

Based on review of CCB & VCS PD^{/01/}, VVB confirms that the lands involved in the 1st PAI include properties owned (FCC, Sanatate & Natura) and managed (Alimax, SC Romfor Sustainable Forestry SRL, SC Wildland SRL) by Foundation Conservation Carpathia for a total of 22,940ha. An additional 462.5 ha of private lands held by Dante International are also included as part of the project, summing up to a total area of 23,404 ^{/28/} ha comprised of non-contiguous private lands were first project activity instances occurred. Of these 13,958 ha are eligible /04,/09/ for certification under VM0012. VVB has reviewed the land of the 1st PAI of this grouped project, including records of legal proof of right and right of use documentation for each property participating in the project.

Ownership ^{/28/}	Surface (ha)	
Fundatia Conservation	14,847	
Carpathia (FCC)		
SC Romfor Sustainable	4,454	
Forestry		
SC Wildland SRL	3,639	
Dante International	462.5	



Total 23,404¹

It is worth to note that FCC owns the 7,708 and has the uncontested right over this area. An inventory^{/28/} of the land ownership records has been provided to the VVB. VVB has checked sample ownership contracts for FCC , Sanatate & Natura and Almimax Natura:

- ✓ Land purchase contract (number 1264) dated 10th August 2023 for area (847.3228 ha) between Erbasu Ion Robert & FCC
- ✓ Transfer of shares agreement dated 13th March 2015, , where Mr Markus FriedrichJebsen (sole owner of Almimax Natura) transfering the shares to FCC and Sanatate & Natura SRL, 99 % and 1 % respectively.
- ✓ Donation certificate (resolution) dated 5th May 2018, where Sanatate & Natura SRL company was donated to FCC by the Wyss Foundation.

Other lands, belongs to SC Romfor Sustainable Forestry, SC Wildland SRL and Dante International with areas of 4,454 ha, 3,639 ha and 462.5 ha. VVB has checked records of contracts between these entities and FCC, which gives FCC an uncontested right over the land for 40 years and also have relinquished the right over the carbon credit generated from the project.

- a) Original contract (number 613/20.04.2022) between the FCC and DANTE INTERNATIONAL S.A. dated 20th April 2022.
- b) Addendum (1237/27.09.2023) to the contract 613/20.04.2022 dated 27th September 2023.

3.2.48 Management of Double Counting Risk (G5.9)

In line with the CCB & VCS PD^{/01/}, the emissions reduction or removal resulting from this project's implementation will not be used for compliance under any other trading program or mechanism. Carbon credits are currently the only environmental credit being generated from this project. No other environmental credits will be generated or sold. A finding was raised regarding the respective section and VVB, based on the review of the supporting document^{/29/} and on-site interviews^{//01-I39/}, confirms that PP has provided the Statement with No.248/01.09.2021 that the Conservation Carpathia Foundation and none of the Carpathia Forest Carbon Projects have previously registered nor are currently seeking to register under any other GHG programme, the project has has not been rejected by any other GHG programs, not included in an emissions trading program or any other mechanism that includes GHG allowance trading, has neither sought nor received another form of GHG related environmental credit, including renewable energy certificates and is not involved in any supply chain process. This declaration was signed

¹ VVB, based on the GIS shapefiles^{/04/} and contractual agreements^{/14/}, confirms that the values are for the first project activity instance.



on 01.09.2021 at the headquarters of the Conservation Carpathia Foundation in Mun. Bra ov, Soseaua Cristianului as stated in the statement.

3.2.49 Emissions Trading Programs and Other Binding Limits

Net GHG emission reductions or removals generated by the project will not be used for compliance with an emission trading program or for meeting binding limits on GHG emissions. VVB confirms this by checking the declaration from the PP. A finding was raised regarding the respective section and VVB, based on the review of the supporting document^{/29/} and on-site interviews^{/101-139/}, confirms that PP has provided the Statement with No.248/01.09.2021 that the Conservation Carpathia Foundation and none of the Carpathia Forest Carbon Projects have previously registered nor are currently seeking to register under any other GHG programme, the project has has not been rejected by any other GHG programs, not included in an emissions trading program or any other mechanism that includes GHG allowance trading, has neither sought nor received another form of GHG related environmental credit, including renewable energy certificates and is not involved in any supply chain process. This declaration was signed on 01.09.2021 at the headquarters of the Conservation Carpathia Foundation in Mun. Bra ov, Soseaua Cristianului as stated in the statement.

3.2.50 Other Forms of Environmental Credit

Based on the review of the CCB & VCS PD^{/01/} the project has not sought or received another form of GHG-related environmental credit, including renewable energy certificates. VVB deems the justification as valid. A finding was raised regarding the respective section and VVB, based on the review of the supporting document^{/29/} and on-site interviews^{//01-I39/}, confirms that PP has provided the Statement with No.248/01.09.2021 that the Conservation Carpathia Foundation and none of the Carpathia Forest Carbon Projects have previously registered nor are currently seeking to register under any other GHG programme, the project has has not been rejected by any other GHG programs, not included in an emissions trading program or any other mechanism that includes GHG allowance trading, has neither sought nor received another form of GHG related environmental credit, including renewable energy certificates and is not involved in any supply chain process. This declaration was signed on 01.09.2021 at the headquarters of the Conservation Carpathia Foundation in Mun. Bra ov, Soseaua Cristianului as stated in the statement.

3.2.51 Participation under Other GHG Programs

As per the CCB & VCS PD^{/01/} the project has not been registered and is not seeking registration under any other GHG programs. VVB confirms this by checking the declaration from the PP and checking the public website of other emission trading programs. (CDM/VCS/GS/GCC/Plan Vivo^{)/B04/}. A finding was raised regarding the respective section and VVB, based on the review of the supporting document^{/29/} and on-site interviews^{/101-139/}, confirms that PP has provided the Statement with No.248/01.09.2021 that the Conservation Carpathia Foundation and none of the Carpathia Forest Carbon Projects have previously registered nor are currently seeking to register under any other GHG programme, the project has has not been rejected by any other GHG programs, not included in an emissions trading program or any other mechanism that includes GHG allowance trading, has neither sought nor received another form of GHG related



environmental credit, including renewable energy certificates and is not involved in any supply chain process. This declaration was signed on 01.09.2021 at the headquarters of the Conservation Carpathia Foundation in Mun. Bra ov, Soseaua Cristianului as stated in the statement.

3.2.52 Projects Rejected by Other GHG Programs

Based on the CCB & VCS PD^{/01/} the project has not sought registration under, and as a result has not been rejected by, any other GHG program. VVB deems the justification as valid. A finding was raised regarding the respective section and VVB, based on the review of the supporting document^{/29/} and on-site interviews^{/101-139/}, confirms that PP has provided the Statement with No.248/01.09.2021 that the Conservation Carpathia Foundation and none of the Carpathia Forest Carbon Projects have previously registered nor are currently seeking to register under any other GHG programme, the project has has not been rejected by any other GHG programs, not included in an emissions trading program or any other mechanism that includes GHG allowance trading, has neither sought nor received another form of GHG related environmental credit, including renewable energy certificates and is not involved in any supply chain process. This declaration was signed on 01.09.2021 at the headquarters of the Conservation Carpathia Foundation in Mun. Bra ov, Soseaua Cristianului as stated in the statement.

3.2.53 Double Counting (G5.9)

The project is being simultaneously validated through VCS. The issuance of VCUs will ensure the avoidance of double counting as the credits generated from the project will be sold as offsets on VCS registry publicly, the series number of the issued credits can be tracked to avoid any potential double counting. A finding was raised regarding the respective section and VVB, based on the review of the supporting document^{/29/} and on-site interviews^{/101-139/}, confirms that PP has provided the Statement with No.248/01.09.2021 that the Conservation Carpathia Foundation and none of the Carpathia Forest Carbon Projects have previously registered nor are currently seeking to register under any other GHG programme, the project has has not been rejected by any other GHG programs, not included in an emissions trading program or any other mechanism that includes GHG allowance trading, has neither sought nor received another form of GHG related environmental credit, including renewable energy certificates and is not involved in any supply chain process. This declaration was signed on 01.09.2021 at the headquarters of the Conservation Carpathia Foundation in Mun. Bra ov, Soseaua Cristianului as stated in the statement.

3.3 Climate

3.3.1 Title and Reference

The methodology applied is VM0012: Improved Forest Management in temperate and Boreal Forests (LtPF) v1.2. Proposed by the United Nations Framework Convention on Climate Change (UNFCCC) in the sectorial scope 14 of Agriculture, Forestry and other Land Uses (AFOLU). Additional tools applied and used in the project are:

I. VT0001 – Tool for Demonstrating and Assessment of Additionality in VCS Agriculture, Forestry and Other Land Use (AFOLU) Project Activities – v3.0, Sectoral Scope 14



II. AFOLU Non-Permanence Risk Report Tool v4.0.

3.3.2 Applicability

Table XV(a): Assessment of project compliance with Methodology:

VM0012 v1.2	VVB Assessment
Condition: Project meets criteria for IFM-LtPF projects. Justification: The Carpathia project meets the criteria for the VCS Improved Forest Management - LtPF.	VVB confirms that, PP, through a combination of land acquisition ^{/09//28/} and conservation agreements ^{/06/} implemented this conservation project i.e. the 1 st PAI. VVB confirms that the project complies with the IFM requirements as the project includes Improved Forest Management (IFM) practices that convert
Condition: Project is located in Temperate or Boreal Domain Global Ecological Zones and meet Tier III Inventory and data requirements. Justification: The Carpathia project is in the Temperate and Boreal Domain as prescribed by the	the logged forests to protected forests (LtPF). Based on the satellite imaginaries ^{/04/} VVB confirms that the Carpathia project is in the Temperate and Boreal Domain as prescribed by the Global Ecological Zone. Furthermore, VVB confirmed the same through the review of the Forest no-forest analysis ^{/04/} .
Global Ecological Zone. The Carpathia project is using inventory methods and approaches that are compliant with the Tier III criteria. Condition:	Based on the purchase contracts/09/,
Project meets VCS Standard requirements for ownership. Justification: The Carpathia project meets the VCS Standard requirements when it comes to land ownership. The demonstration of land ownership is described in Section 2.5.9.	provided by PP, VVB confirms that the project has meet the VCS Standard requirements when it comes to land ownership. PP has provided, all the land ownership documents of the PP and have also provided it in detail in Section 2.5.9. Please also refer to the assessment under
Condition: Annual illegal, unplanned and fuelwood removals are <5% of total annual harvest levels.	section 3.2.47 of this report. Based on review of the Forest Management Plan ^{/06/} provided by PP, VVB confirms that the project has no illegal, unplanned harvesting or fuelwoods removals.
Justification: The Carpathia project has no illegal, unplanned harvesting or fuelwoods removals. Forest areas traditionally used for fuelwood collection were not included in the project area.	
Condition: No managed peatland forests in project.	VVB based on the review of the shapefiles ^{/04/} , FCC masterplan and on-site inspections ^{/101-139/} , confirms that the project



VM0012 v1.2	VVB Assessment
Justification: The project does not contain any managed peatland forests.	does not contain any managed peatland forests.
Condition: Total percentage of wetlands in project area not expected to change due to project activities. Justification: The project does not include any activities that will alter or change the percentage of wetlands in the project areas.	VVB based on the review of the shapefiles ^{/04/} and Forest Management Plan ^{/06/} , FCC masterplan ^{/10/} and on-site inspections interviews ^{/101-139/} , confirms that the project does not include any activities that will alter or change the percentage of wetlands in the project areas.
Condition: No activity shifting leakage to other project lands at the start of the project. Justification: The project will not incur activity shifting leakage at the start of the project start date and this is demonstrated in the baseline scenario description.	PP has demonstrated that the project will not incur activity shifting leakage. The step wise demonstration (as per the requirement of section 8.3.1 of the applied methodology /B02/) has been detailed in section 3.2.3 of the VCS-CCB PD. VVB, based on the CCB & VCS PD ^{/01/} and documents /30/, confirms that the 1 st PAI would not attribute to any activity shifting leakage.
Condition: Project does not include non- <i>de mininis</i> application of fertilizer in the project scenario. Justification: Carpathia will not include any application of fertilizer in the project area.	VVB, based on the on-site inspection ^{/I01-I39/} and review of the supporting document FCC Statutes ^{/26-5/} , confirms that that the project does not involve any application of fertilizer since the 1 st PAI comprise of conservation activity ^{/06//09//07//16//28/} only.

3.3.3 Project Boundary

Regarding the Carbon Stock Changes and considering the applicable methodology^{/B02/}, the chosen carbon pools and GHG accounted^{/01/} are the following:

Table XVI: Carbon Pools Accounted:

Source		Gas	Included?	Justification/Explanation			
Note: CH ₄ and N ₂ O excluded from Baseline and Project calculations							
Above Ground CO ₂ Yes Biomass (Live)		Sink – Biomass re-growth after harvest disturbance					
Baseline	Baseline			Source – Carbon flows resulting from timber harvest removals and adjacent biomass impacts during operations.			
				Source – Emissions from mortality and decay in remaining forests.			



CCB & VCS VALIDATION REPORT:

CCB Version 3, VCS Version 3

	Below Ground Biomass Pool (Live and	CO ₂	Yes	Sink – Biomass re-growth after forest management activities				
	Dead)			Source – Carbon flows resulting from forest management harvesting removals.				
				Source – Emissions from mortality and decay in remaining forests				
	Pool		Yes	Sink – Dead snags, course branches and stems before and after forest management activities Source – Decay of deadwood pool				
	Wood Products Pool	CO ₂	Yes	Sink – Carbon in permanent storage in harvested wood products				
				Source – Emissions from decaying wood products				
	Above Ground Biomass (Live)	CO ₂	Yes	Sink – Biomass accumulation in growing retained forest.				
				Reservoir – Biomass in un-harvested forest				
Project	Below Ground Biomass Pool	CO ₂	Yes	Reservoir – Biomass retained in forest.				
	(Live and Dead)			Sink – Biomass accumulation in avoided harvest				
Pro	Dead Wood	CO ₂	Yes	Sink – Dead branches and stems				
	Pool			Source – Decay of deadwood pool				
	Wood Products Pool	CO ₂	Yes	Sink – Carbon in permanent storage in harvested wood products				
				Source – Decay of harvested wood products				
Source	es excluded from	the baselir	ne and proje	ct scenarios				
	Above-	CO ₂	No	Sources and sinks are de minimus				
Excluded	ground Non- Tree Biomass (Live)							
	Litter Pool	CO ₂	No	Litter is a short-lived transition pool, and differences between the project and baseline are <i>de minimus</i> over time.				



Soil Carbon Pool	CO ₂	No	Soil carbon is a reservoir of long-lived carbon storage which is likely unaffected by timber harvesting
Combustion of Fossil Fuels by Vehicles/ Equipment	CO2	No	Carbon emissions from harvesting equipment, log transport, and primary forest product manufacturing are listed as being an optional inclusion within VM0012 and therefore are being excluded due to the project scenario consisting of conservation with harvesting occurring only to maintain the health of the stand. Therefore, any emissions due to vehicle/ equipment use will be minimal.

Based on the on-site inspection and review of documents^{/01/}, VVB confirms that the selection of carbon pool is in accordance with the methodology requirements^{/B0/}. Furthermore, as demonstrated in section 3.1.3 of the CCB & VCS PD^{/01/} and assessed above in section 3.3.2 of this report, 1st PAI does not involve any use of fertilizer and thus it's not listed in the emission source. Adding further, VVB confirms that burning of biomass (on site slash burning) is also not applicable for the 1st PAI and thus corrected not listed as an emission source of the CCB & VCS PD^{/01/}.

3.3.4 Baseline Scenario

The project followed the steps indicated in the Section 6 Procedure for determining the baseline scenario of the applied methodology, VM0012, v1.2^{/B02/}.

Step 1. Identify plausible alternative baseline scenarios to the VCS project activity

The project identified four plausible baseline scenarios/ alternatives including the two (at minimum), as required by the applied methodology^{/B02/}. The assessment of each of the plausible alternative including its elimination/ non-elimination is provided below:

a. Historical Practice

The VM0012 (v1.2) and VCS Standard^{/B01/} indicated the consideration of historical practice as part of the baseline scenario determination. VVB has reviewed forest management plans^{/06/}, that comprise the eligible areas identified between 2012 and 2016. Based on this review, it is confirmed that the annual allowable harvest was 35,838 m³. Step 2a below provides the summary of the annual allowable cut of the project.

According to step 2a of the applied methodology^{/B02/}, the historical practices baseline scenarios correspond to the continuation of pre-project activities. The project area is a mosaic of different land ownership ^{/09/,/28/} in which privates, the state and the municipalities manage the large continuous forest in the Romanian Carpathians. <u>VVB confirms, this as a plausible baseline alternative/scenario.</u>



b. Common Practice

Forest Management Plans ^{/06/} in Romania as required by law to be completed every 10 years (Romanian Forest Code, Technical Regulation No.5/2005). This was also confirmed by the VVB during the on site inspection.

VVB confirms that the harvesting of the allowable annual cut ^{/06/} as applicable for the project areas is a common practice. <u>VVB confirms, this as a plausible baseline alternative/scenario.</u>

c. Acquisition of lands for timber activities

VVB confirms that under this scenario, companies or investors acquires the property for gaining financial returns from timber activities. This scenario would likely increase the harvest to the maximum allowable annual cuts detailed in the management plan for covering the land purchase price.

VVB has assessed the demonstration in the CCB & VCS PD^{/01/} for this alternative and noted that in Romania during the communist regime, privately owned lands were nationalized and collectivized. Bigger farms were merged into "state farms", which received state subsidies, while smaller farms were joined into "collective farms", which did not receive them. The state and collective farms were, at this time, characterized by monocultures and changes in the agricultural species composition. With the forest restitution in 2005 deforestation followed. The development of heavy industry became a political priority and locals' newly acquired forests allowed for making quick profits by either selling their forest, or the rights to the timber resources. Both local and international forestry interests capitalized on this development, resulting in increasing deforestation rates. *VVB confirms, this as a plausible baseline alternative/scenario.*

d. Acquisition of the lands for conservation purposes

This scenario is representative of, or comparable to, the project scenario without carbon standard certification. The Southern Carpathians Mountains shelter a very high number of habitats with a huge conservation potential for wildlife, insects, birds, and different plant species. Over an area of 250,000 hectares, the region holds national and natural parks overlapping with important Natura 2000 elements worth being protected. Large carnivores – wolf, bear, and lynx – as top predators at the end of the food chain are still present in the region in viable numbers, with the European bison being the only missing species . Also, species strongly dependent on these natural forests, such as western capercaillie (Tetrao urogallus), red-breasted flycatcher (Ficedula parva), and the Alpine long-horn beetle (Rosalia alpina) are relevant in the region. Only in the Leaota region 3 higher plant species, 7 insect species, 2 amphibian species, 1 fish species, 7 mammal species and 24 habitat types (forests, meadows, shrubs, rivers, wet areas) are included in Annexes 1 and 2 of the EU Habitats Directive . Altogether this represents an outstanding motivation for the creation of a conservation area in the Carpathian Mountains that can become the most iconic National Park in Europe

VVB has noted that required by the VM0012 (v1.2) $^{/B02/}$, CCB & VCS PD has identified the following requirement which must be met by each prospective baseline scenario, except where noted and excluded:

- Complying with the IFM-LtPF project and eligibility requirements by only including activities and areas where forests remaining as forests: this criterion eliminated the baseline scenario 3 "Acquisition of lands for timber activities" due to the occurrence of deforestation despite having timber activities in place.
- 2. <u>Comply with legal requirements for forest management and land use in the area</u>: the remaining baseline scenarios would meet the minimum practice requirements due to the Romanian Forest Act and/or the regional and state laws and requirements.
- 3. Demonstrate that the "projected baseline scenario environmental practices equal or exceed those commonly considered a minimum standard among landowners in the area" (Voluntary Carbon Standard, 2008): the remaining baseline scenarios could have complied with the environmental practices in the area.

Step 2. Selection of a single plausible baseline scenario for the project

As required by the applied methodology^{/B02/}, the project proponent has selected the single plausible baseline scenario by following the steps below.

Step 2a. The Historical Baseline Scenario – based on historical operating practices on the property:

2a.1 The project proponent has at least 5 years of historical harvest level data history.

VVB confirms that the project proponent has forest management plans^{/06/} that cover the project start date and are valid for 10 years. The VM0012 methodology^{/B02/} allows the use of "a pre-existing forward-looking forest management plan as the historical baseline data ". As reviewed^{/06/} during the on-site inspection^{/101-I39/}, over the last five years prior to the project start date, it is estimated that there is an annual average of 35,838 m³ for the allowed harvest volume. The project utilized the annual allowed cut from the historical forest management plans ^{/05//06//13/} for the historical baseline data.

FMP	Area (ha)	Annual allowable harvest (m3/year)				
		Primary	Secondary	Conservation	62ommu	Total
		cutting	cutting	cutting	nit cutting	
Amenaj fond forestier 620mmunit fizic	107	431	0	60	4	495
е						
I Arges	2,774	6,085	3,794	1,492	531	11,903
I Bratioara	33	31	120	0	0	151
I Costi și Nic	103	0	0	0	82	82
I Cumpăna	202	838	31	25	102	996
I Matei Cristian	423	1,565	443	157	112	2,277
I Negrita – Tuha	406	190	319	140	206	855
I Nucsoara	715	0	0	311	186	497
I Piatra Craiului	640	375	191	30	65	660
I Pietrosita – Moroeni	4	0	0	0	3	3
I Rucar	112	54	5	0	64	123
I Runcu	636	364	482	437	281	1,563
I Valea Dambovitei	1,328	239	615	605	273	1,731
I Valea Lungă	125	141	114	157	8	420
I Valea Urdii	178	233	48	0	63	344



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I Vidraru	563	861	53	387	87	1,389
I Visoianu	123	70	93	84	54	301
II Arges Campulung	508	116	462	125	286	989
II Arges Rucar	278	0	0	0	222	222
II Dambovita	804	65	87	314	459	925
II Dambovita_WL	455	342	423	124	171	1,060
II Leresti	497	1,006	516	441	235	2,196
II Moroeni	575	1,225	262	28	419	1,934
II Pitesti	54	0	0	0	0	0
II Vidraru	107	0	0	32	78	110
III Campulung Rausor	1,084	1,375	462	229	710	2,776
III Raciu	163	367	68	46	0	481
UB Pădurea Particulara Bajan	77	1	217	68	21	308
UP II Pădurea particulara Bajan	111	2	271	56	7	336
UP Nord	14	18	0	0	0	18
UP Sud	17	73	0	0	0	73
V Bratei	203	38	205	121	57	422
VII Grigorescu	141	0	0	0	113	113
VII Zarnulita	108	0	0	0	86	86
XVI Valea Rea	291	0	0	0	0	0
Total	13,959	16,107	9,280	5,468	4,983	35,838

The baseline scenario based on actual property harvest history has been selected because the project proponent has at least 5 years historical harvest level data history. VVB confirms that Step 2b and 2c as omitted due by PP is correct and also inline with the requirements of the applied methodology^{/B02/} due to existence of the historical baseline scenario in Step 2a.

3.3.5 Additionality

In line with CCB & VCS PD, to demonstrate the additionality of the proposed VCS project, the VT0001 v3.0 "Tool for the Demonstration and Assessment of Additionality in VCS AFOLU Project Activities" was used. The following steps were implemented.

The Carpathia project meets the eligibility requirements of the VT0001 v3.0 tool by:

1. The project activities are not in violation of any applicable law

2. The project employed the stepwise approach to determine the most plausible baseline scenario that is consistent with the application of the VT0001 v3.0 tool.

Step 1. Identification of alternative land use scenarios to the proposed VCS AFOLU project activity.

This step serves to identify alternative realistic land use scenarios for the proposed project activities.

Sub-step 1a. Identification of plausible baseline scenarios

a. Historical Scenario (selected baseline scenario)



- b. Common practice
- c. Acquisition of lands for timber activitiesd.
- d. Acquisition of lands for conservation purposes

Sub-step 1b. Consistency of credible land use scenarios with enforced mandatory applicable laws and regulations

All plausible baseline scenarios could be undertaken within the legal requirements of forestland in Romania. Some of the laws and regulations that applied for the Carpathian Mountains are presented below:

- Forest Code (Forest Law 1996)
- Forest Restitution Laws (Laws 18/1991, 1/2000 and 247/2005)
- Council Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora
- The European Union Timber Regulation (EUTR)
- The Carpathian Convention

Results Sub-Step 1b.

See Step2a of Section 3.1.4 – The Historical Baseline Scenario – based on historical operating practices on the property.

The outcome of the selection process was the use of "Historical Practice" as the baseline scenario.

Step 2. Investment Analysis

The 1st PAI is a Logged to Protected Forest conservation project, the project scenario generates no material financial or economic benefits other than VCS related income, and therefore is suitable for Option 1 – Simple Cost Analysis.

VVB during on-site inspection confirms the following cost as required for the implementation of the 1st PAI:

- a. property cost
- b. management costs,
- c. and capital costs, in the project scenario.



No other financial benefit is attributable to the project as confirmed during the on site inspection. VVB thereby confirms that revenues from the carbon project provides the sole reasonable revenue opportunity for the project.

VVB confirms that the 1st PAI is less financially attractive than the alternative baseline scenario i.e. The Historical Baseline Scenario – based on historical operating practices on the property. Thus the 1st PAI is additional. Step 3 is still performed by the PP.

Step 3 Barrier analysis

Sub-step 2a. Identify barriers that would prevent the implementation of the type of proposed project activity.

Project Land use	Barrier faced	VVB Assessment
scenario alternative Continuation of	Land Ownership and Economic	Land Ownership barrier
harvesting practices	barriers Climate barriers	The on-site inspection/interviews ^{//01-I39/} reveals that restitution of nationalized land reshaped ownership of two-thirds of Romania's forests, but it now hampers forest owners due to resource competition and a lack of unified markets for timber and non-timber products.
		Climate Barrier The on-site inspection/interviews ^{//01-I39/} reveals that the project area faces increasing risks from extreme climatic events like severe droughts and strong winds. These events have the potential to intensify, leading to forest degradation and posing a threat to the current land use activities in the region.
Acquisition of the land for timber activities	Ownership barriers Climate Barriers Management Barriers	Ownership barriers ^{/28/} The on-site inspection/interviews ^{/101-139/} reveals that Obtaining permission to cut wood from one's private forest is a highly regulated activity. When the first land law (18/1991) was passed, previous landowners were assigned one hectare of forest land regardless of the size and location of their historical property. Climate Barriers



		VVB during on-site inspection/interviews/ ^{11-120/} observed that droughts represent a significant threat to Romanian forests, and there is already evidence linking high drought conditions to tree decline and mortality within these forests. Management Barriers The on-site inspection/interviews/ ^{101-139/} reveals that once the required permits for tree harvesting are obtained, a forester will conduct an assessment of the wood stock on private lands. The forester will then mark the trees that are designated for cutting. Subsequently, the harvesting process can commence, with the forester overseeing and supervising the operations.
Acquisition of the land for conservation purposes	Economical barrier Land Ownership Barriers Legislative barrier Public Acceptance barriers Institutional Barriers Wildlife human interaction barriers Climate Barriers	Economical BarrierTheon-siteinspection/interviews/ ^{I01-I39/} reveal that restoration andconservation activities inpurchased areas involveexpenses beyond landacquisition.These costsencompass the replanting oforiginal and native tree species,emphasizing the importance ofecological restoration andmaintaining the natural habitat.Land Ownership conditionsDuringOuringon-siteinspection/interviews/ ^{I01-I39/} thatthe Carpathian Mountains arenow a mosaic of land owned bycommunities, landowner'sassociations, private individuals,and the state.Landowners'associations generally do notoppose full protection of theirvirgin forests at all if they wouldreceive proper compensation.Legislative barrierTheon-siteinspection/interviews/ ^{I01-I39/}



	reveal that throughout the last few years, the Romanian government showed little effort to develop a functioning administration system for protected areas and to allocate resources from the state budget to administrating National and Natural Parks, Natura 2000 sites, or other categories of protected areas.
	Public Acceptance barrier The on-site inspection/interviews ^{/I01-I39/} reveal that a national park is understood to restrict certain livelihood activities such as fishing, picking berries/mushrooms/nuts, grazing animals, and hunting (Aastrup, 2020). Local communities are likely to oppose the creation of a National Park unless their economic situation is set to improve from this change.
	Institutional barrier The on-site inspection/interviews/ ^{101-139/} reveal that in summer 2018, the National Agency for Protected Areas (ANANP) fired a full broadside against conservation NGOs and proposed an Emergency Ordinance, which would not allow NGOs to administrate protected areas anymore.
	Wildlife human interaction barrier The on-site inspection/interviews ^{//01-I39/} reveal that the project area has experienced active wildlife- human conflicts, with several severe incidents involving attacks on livestock. Unfortunately, in the summer and autumn months of 2019, these conflicts led to the loss of livestock due to bear attacks.



	Climate Barriers The on-site inspection/interviews ^{/101-139/} reveal that: Climate change is significantly impacting sapling production in tree nurseries, primarily due to the unavailability of viable seeds from the main species. This challenge has persisted over the past three to four years. Additionally, the changing climate patterns, characterized by reduced snowfall in winter and substantial temperature variations during spring and summer, are adversely affecting the growth of saplings in the nurseries. These climate-related issues pose considerable challenges to the cultivation of tree seedlings for reforestation and conservation efforts.
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Sub-step 3b. Show that the identified barriers would not prevent the implementation of at least one of the alternative land use scenarios (except the proposed project activity)

The barriers identified would prevent the implementation of scenarios 2 and 3, which are limited by economic, land ownership^{/28/}, climate, and institutional barriers.

Sub-step 3c. Determination of the baseline scenario (if allowed by the barrier analysis)

The most likely scenario in the absence of the project will be the continuation of harvesting practices. Approved harvesting operations would be conducted at allowable volumes in the forest management plans. Under this scenario, logging, hunting, grazing and soil erosion increased in the Carpathian Mountains.

Step 4. Common practice analysis

The Carpathia Forest Carbon Project aims to create a conservation area in the Carpathian Mountains that can be recognized as the "European Yellowstone Park". This could be the first and largest IFM carbon project registered in Romania, representing the biggest conservation purchase in Romania without comparison. This constitutes a wide difference with the baseline scenario in which harvesting, hunting, and grazing are the common activities. VVB confirms that the project is not common practices and it is additional as demonstrated in section 2 above. VVB thereby confirms the project as additional.

3.3.6 Methodology Deviations

Based on the review of the CCB & VCS PD^{/01/} there is a deviations from the applied methodology^{/B02/} and related tools^{/B03/}.



The employs the use of the Terrestrial Lidar System (TLS) as a complement for the conventional manual forest inventory approach when it comes to the monitoring component of the project. This measurement was validated during the on site inspection by a sample witness of the plot. In the opinion of VVB, the employed technology leads to more accurate measurement of parameters such as tree height, DBH, number of trees in a sample plot as well as dead wood and litter on ground. This deviation is thus lead to accuracy and conservative results and essentially yields the same result/input for the ex-post carbon calculation and thus acceptable to the VVB. VVB deems the justification as valid and appropriate.

3.3.7 Quantification of GHG Emission Reductions and Removals

Procedures for quantifying the GHG removals generated by the project during the project crediting period were conducted in accordance with the section 8 of the applied methodology "VM0012: Improved Forest Management in temperate and Boreal Forests (LtPF) v1.2"/B02/.

The applied methodology VM0012, v1.2"/B02/, step wise approach to quantify the baseline, project and leakage emissions.

As per the applied methodology VM0012, v1.2"^{/B02/}, baseline emissions are calculated from the baseline scenario selected in Section 6 of applied methodology VM0012, v1.2"^{/B02/}. This baseline scenario does not change during the project duration, however, as outlined in Section 8.2.4 applied methodology VM0012, v1.2"^{/B02/}, certain data or model parameter changes may require remodeling baseline carbon pools in future verifications. As per the applied methodology VM0012, v1.2"^{/B02/}, all calculations in this methodology represent annualized net changes in carbon stocks by polygon. Results from each polygon must therefore be summed across the project activity area to determine the annual total net emissions and reductions. VVB during the on site inspection interviews^{/I01-I39/} noted that project proponent has calculated baseline and project emission using Carbon Budget Model of the Canadian Forest Service (CBM-CFS3) and the use of the model is allowed as per the applied methodology (VM0012, version 01.2).

Valid Starting Inventory Requirements

Project proponents has provide a valid (subject to closure of finding) starting forest inventory (following the applied methodology VM0012, v1.2"/B02/) meeting the following requirements:

- 1. Pertaining directly to the entire project area; and,
- 2. Created, updated, or validated <10 years ago; and,
- 3. Documentation is available describing the methods used to create, update, or otherwise validate the starting inventory, including statistical analysis, field data, and/or other evidence.

Baseline Scenario Area Stratification

The process of stratifying the area represented in the baseline scenario should include two steps. The first is to divide the area (ABSL) into homogeneous units (polygons) from the perspective of carbon storage and sequestration. The second step is to identify areas within the project area that are eligible for specific forest management activities within the baseline and project scenario.

Step 1: Stratify to create homogenous units

The project activity area is not homogeneous, stratification is being carried out to improve the accuracy and precision of biomass estimates. Project proponent has used the same stratifications for the baseline and project scenarios. For estimation of the baseline net GHG removals by sinks, or calculation of actual net GHG removals, homogeneous polygons has been defined on the basis



of parameters that is being used as key entry variables in the methods used to estimate changes in biomass stocks (for example, growth models or yield curves/tables).

These include:

1. Management regime. For example, types of harvesting (clear cutting, patch retention), and land conversions for roads and landings.

2. Site index / anticipated growth rates

- 3. Forest species
- 4. Age class

Based on above criteria, project proponent has defined the following stratification for the baseline and project quantification:

- 1. Hardwood
- 2. Softwood
- 3. Mixed

Project proponent has used tools for defining polygons include ground-truthing maps from satellite imagery, aerial photos, and maps of vegetation, soils, and topography.

Step 2: Identify areas eligible for specific management activities

The Timber Harvesting Landbase (THLB) was identified from the original 23,404 ha first project activity instances property area to the 13,958 ha project area of eligible areas under VM0012. The inclusion of areas in the THLB was determined upon fulfilling the following criteria:

- The areas were already forested at the project's commencement.
- The areas possessed a defined FMP with planned harvests during the project period.
- The areas were not designated for road or infrastructure development.

• Additionally, areas traditionally utilized for fuelwood collection were excluded from consideration

Model Selection and Use

The Carbon Budget Model of the Canadian Forest Sector (CBM-CFS3), was selected for forest growth and carbon modeling. The model was used in combination with estimated strata and polygon-specific yield curves, as well as a harvest scheduling software.

Project proponents has made available, at validator/verifier request, documentation of:

- 1. The appropriateness of the selected model(s) to the particular project application;
- 2. A listing and explanation of all input data, output data, and model parameters/assumptions.

Listing of data used for the carbon modelling

Input data derived from existing datasets and sources:

Dataset	Description	Source	Justification
FMP inventory data	Inventory data (primarily standing tree volume, species composition, and stand age) for the project area	,	Most recent inventory data at project start. The inventory data have approved by the Romania forestry authority



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FMP allowed harvest data	Pre-existing forest management plans including allowed 10- year harvests.	management plans	Selected based on the VM0012 historical baseline criteria. The forest management plans have been approved and implemented before the project start date. The management plans have approved by the Romania forestry authority
CBM-CFS3 model, version 1.2.8213.356	Carbon Budget Model of the Canadian Forestry Service. The model tracks carbon flows across all relevant live biomass and dead biomass pools using regional decay parameters.	The model can be downloaded freely: https://natural- resources.canada.ca/ climate- change/climate- change-impacts- forests/carbon- accounting/carbon- budget-model/13107	Peer-reviewed, regionally calibrated by the Joint Research Center of the European Union. Fulfills VM0012 requirements.
EU CBM-CFS parameter database	Database containing all regionally calibrated parameters required for CBM simulations of forest carbon flow in Europe. Parameters for the climatic unit 34 were used.	The database can be free downloaded: <u>https://data.jrc.ec.eur</u> <u>opa.eu/dataset/jrc-</u> <u>cbm-eu-aidb</u>	Parameter database is peer-reviewed and regionally calibrated (Pilli et al., 2018). Published by Joint Research Center of the European Union. A majority of the project area lays within climatic unit 34.
Forest product conversion factors	Conversion factors (roundwood to sawn wood or pulpwood product) for calculated the milling efficiency of sawn wood and pulpwood products. Softwood sawn wood products conversion factor: 1.7 m3/m3; hardwood: 1.6 m3/m3; pulpwood 2.6 m3/tons	UN/ECE-FAO (2010) FOREST PRODUCT CONVERSION FACTORS FOR THE UNECE REGION UNITED NATIONS. Geneva.	Most recent official reported conversion factors published for Romania.
Percentage of wood products in use after 3 year (P3) or 100 years (P100)	Percentage of wood products in use after 3 year (P3) or 100 years (P100). Used to calculate percentage of harvest wood product with short, medium, and long life spans based on methodology suggested in VM0012.		Approach and source suggested in VM0012



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Percentage of harvested timber used as pulp- or sawlogs	Percentage of harvested timber used as pulp- or sawlogs. Estimated based on reported national timber utilization data.	INSTITUTUL NATIONAL DE STATISTICA (2022) Round wood volume exploited by categories and species group. Available at: http://statistici.insse.r o:8077/tempo- online/#/pages/tables/ insse-table (Accessed: 24 May 2023).	Official data published by the Romanian National Institute for Statistics.
Fossil fuel emissions during harvesting and processing	Fossil fuel emissions due to harvesting, transport, and processing of wood products. Emissions were assumed to be 0.		This is a conservative assumption. As baseline scenario harvests will be higher than project scenario harvest fossil fuel emission will also be higher. Accordingly, avoiding harvesting under the project scenario also avoids harvest related fossil fuel emissions (i.e., leads to emission reductions). These emission reductions are not considered by assuming no fossil fuel emissions – leading to lower calculated total project emission reductions.
Wood densities	Wood densities for the dominating species in the project area. Wood density for beech: 0.68 tons/m3; spruce: 0.47 tons/m3.	de Vries, W. et al. (2003) Intensive Monitoring of Forest Ecosystems in Europe, 2003 Technical Report. Brussels.	Publication contains a comprehensive review of wood densities for European tree species.

Output data of intermediate modelling steps and calculations that are used in subsequent modelling steps

Dataset	Description	Source	Justification
Merchantable volume yield curves	Estimated age-based merchantable volume yield curve based on Richard's equation. Separate yield curves were estimated for hardwood, softwood, and mixed stands. The associated parameters are reported in the supplementary materials	Modeled/calculated	Age-based merchantable yield curves are required inputs for CBM-CFS3. Richard's equation if a commonly used equation used to model yield curves for forest stands.



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CBM Standard Import Table	The CBM Standard Import Table file contains information required to run CBM- CFS3 simulations. This includes information on the modeled stand characteristics (e.g., stand age and species composition), spatial unit identifier, transitions (to specify how a disturbance influence the forest carbon pools), and disturbance events. The disturbance events are here management interventions such as thinnings and harvests. The timing and intensity of these events (i.e. how much carbon is extracted) is determined during	Compiled based on inventory data and harvest schedule.	The CBM Standard Import Table is the key input defined the forest carbon scenario to be simulated in CBM-CFS3.
CBM_bsl_Outputs	harvest scheduling. CBM-CFS3 carbon pool outputs for the baseline scenario. CBM estimates all live and dead biomass pools in the stand on an annual basis. These are used for further emission reduction calculations.	Modeled	
CBM_prj_Outputs	CBM-CFS3 carbon pool outputs for the project scenario. CBM estimates all live and dead biomass pools in the stand on an annual basis. These are used for further emission reduction calculations.	Modeled	
Harvest scheduling script	R script containing a program for the harvest scheduling. The harvest scheduling program aims to fulfil the annual harvest targets (i.e., allowed harvest). Stands closer to the optimal harvest or thinning age are prioritized for harvesting and thinning. The annual harvest targets cannot be exceeded. However, unrealized	Purpose-written for the project	To compile the disturbance events file running a harvest schedule programme is required for project that contain multiple stands. The harvest schedule programme ensure that the annual harvest targets are met under consideration of regional management practices. By using R, the harvest schedule if fully reproducible by third- parties.



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	harvests can be transferred to the harvest allowance of following each. The output of the program is the disturbance event file.		
HWP post-processing script	R script for the post- processing of the HWP carbon pool. The calculations performed in the script follow the methodology outlines in VM0012	Purpose-written for the project	CBM tracks the annual amount of carbon removed for the forest due to harvesting activities. However, this harvested carbon is not tracked further. Accordingly, post- processing of the harvest carbon (i.e., carbon in HWP) is required according to VM0012.

Output data directly used the emission reductions and VCU calculations. The following data can all be found in the VCU calculation Excel spreadsheet^{/02/}

Dataset	Description	Source	Justification
Aboveground and belowground live tree biomass	CBM annual aboveground and belowground live tree biomass pool outputs. These outputs are used to calculate the annual change in carbon stocks.	Modeled	Required to calculate annual changes in carbon stocks
HWP carbon pool	Carbon stored in the HWP carbon pool. This dataset is the result of the HWP carbon post-processing. These outputs are used to calculate the annual change in carbon stocks.	Modeled	Required to calculate annual changes in carbon stocks
Deadwood carbon pool	Dead organic matter carbon pool (lying and standing deadwood)	Modeled	CBM annual DOM carbon stocks, i.e., carbon stored in standing and lying deadwood. These outputs are used to calculate the annual change in carbon stocks.
Emissions	Baseline and project emissions emissions calculated based on the annual carbon stock changes.	Calculated	The calculated emissions are required to further calculate the project emission reductions
Emission reductions	Calculated emission reductions resulting from the project implementation. These emissions reductions are foundation of the VCU calculation after subtracting leakage and uncertainty buffers	Calculated	



VVB, based on the review of CCB & VCS PD^{/01/}, confirms that PP has comprehensively incorporated all datasets and parameter sets in section 3.2.1. This section outlines the input data derived from existing datasets and sources, as well as the output data generated from intermediate modeling steps and calculations. These outputs are utilized in subsequent modeling steps, and some are directly involved in emission reductions and VCU calculations.

Additionally, VVB affirms that the model employs a standardized mortality rate of 5%. This rate encompasses both self-thinning and mortality resulting from minor natural disturbances. Notably, in Central East Europe, including Romania, less than 3% of the forest area is classified as "damaged" due to natural disturbances like forest fires, pests, or storm damage. Hence, the finding has been closed.

Calculating the Baseline Carbon Balance

This methodology employs the IPCC gain-loss method (IPCC, 2006a), which requires the biomass carbon loss be subtracted from the biomass carbon increment for the reporting year. This method is particularly appropriate for areas with a mix of stands of different forest types, and/or where biomass change is very small compared to the total amount of biomass. Further details can be found in (IPCC, 2006a) (Ch. 4).

The total annual carbon balance in year, t, for the baseline scenario is calculated as ($\Delta CBSL$,t, in t C yr-1):

$\Delta C_{BSL,t} = \Delta C_{BSL,P,t} (1)$

where:

 $\Delta CBSL, P, t =$ annual change in carbon stocks in all pools in the baseline across the project activity area; t C yr-1.

$\Delta C_{BSL,P,t} = \Delta C_{BSL,LB,t} + \Delta C_{BSL,DOM,t} + \Delta C_{BSL,HWP,t} (2)$

where:

 $\Delta CBSL,LB,t$ = annual change in carbon stocks in living tree biomass (above- and belowground); t C yr-1

 $\Delta CBSL,DOM,t$ = annual change in carbon stocks in dead organic matter; t C yr-1 $\Delta CBSI,HWP,t$ = annual change in carbon stocks associated with harvested wood products, t C yr-1.

$\Delta C_{\text{BSL,LB,t}} = \Delta C_{\text{BSL,G,t}} - \Delta C_{\text{BSL,i,t}}$ (3)

where:

 $\Delta C_{BSL,G,t}$ = annual increase in tree carbon stock from growth; t C yr-1 $\Delta C_{BSL,L,t}$ = annual decrease in tree carbon stock from a reduction in live biomass; t C yr⁻¹.

Live Biomass Gain

Live biomass gain in year, t, polygon, i ($\Delta C_{BSL,G,i.t}$) is calculated as:

$\Delta C_{\text{BSL,G,t}} = \Sigma(A_{\text{BSL,i}} \bullet G_{\text{BSL,i,t}}) \bullet CF (4)$

where: $A_{BSL,i,}$ = area (ha) of forest land in polygon, i; $G_{BSL,i,t}$ = annual increment rate in tree biomass (t d.m. ha-1 yr-1), in polygon, i, and; CF = carbon fraction of dry matter t C t-1 d.m. (IPCC default value = 0.5).

$\mathbf{G}_{\text{BSL},i,t} = \mathbf{G}_{\text{BSL},\text{AG},i,t} + \mathbf{G}_{\text{BSL},\text{BG},i,t} (5a)$

where:

 $G_{BSL,AG,i,t}$ and $G_{BSL,BG,i,t}$ = annual above- and belowground biomass increment rates (t d.m. ha-1 yr-1);

 $G_{BSL,BG,i,t} = G_{BSL,AG,i,t} \bullet Ri (5b)$

where Ri is the root:shoot ratio in polygon. In CBM the root:shoot relation is estimated based on species-specific allometric equations.

The inventory data underlying the ex-ante modeling were derived from the most recent forest management plans. The data were no older than 5 years at the project start.

Live Biomass Loss

The annual decrease in live biomass tree carbon from live biomass loss ($\Delta CBSL,L,t$; t C yr-1) is the sum of losses from:

1. Natural mortality (i.e., insects, disease, competition, wind, etc.)

2. Commercial round wood felling

3. Incidental sources.

The annual decrease in live biomass tree carbon from live biomass loss is calculated using:

$\Delta C_{BSL,L,t} = \Sigma (LBL_{BSL,NATURALI,t} + LBL_{BSL,FELLINGS,i,t} + LBL_{BSL,OTHER,i,t}) \bullet CF (6)$

where:

 $LBL_{BSL,NATURALi,t}$ = annual loss of live tree biomass due to natural mortality in polygon, i; t d.m. yr-1

LBL_{BSL,FELLINGS,i,t} = annual loss of live tree biomass due to commercial felling in polygon, i; t d.m. yr-1

LBL_{BSL,OTHER,i,t} = annual loss of live tree biomass from incidental sources in polygon, i; t d.m. yr-1 CF = carbon fraction of dry matter; t C t-1 d.m. (IPCC default value = 0.5).

 $LBL_{BSL,NATURALI,t} = A_{BSL,i} \bullet LB_{BSL,i,t} \bullet f_{BSL,NATURAL,i,t} (7)$

where:

A_{BSL,i} = area (ha) of forest land in polygon, i;

LB_{BSL,I,t} = average live tree biomass (t d.m. ha-1) in polygon, I, for year, t

LB_{BSL,i,t} is calculated for year, t, beginning with biomass estimates in year t=1 (the project start year) and with annual biomass increments (GBSL,i,t) added as per calculations in equation 5a. $f_{BSL,NATURAL,i,t}$ = the annual proportion of biomass that dies from natural mortality in polygon , i (unitless; 0 < $f_{BSL,NATURALi}$ < 1), year, t. The parameter is defined within CBM based on regionally calibrated values.

LBL_{FELLINGS,i,t} = A_{BSL,i} • LB_{BSL,i,t} • f_{BSL,HARVEST,i,t} (8)

where:

ABSL,i = area (ha) of forest land in polygon, i

 $LB_{BSL,i,t}$ = average live tree biomass (t d.m. ha-1) in polygon, i, for year, t (see equation 7 for its calculation).

 $f_{BSL,HARVEST,i,t}$ = the proportion of biomass removed by harvesting from polygon, i, (unitless; 0 < $f_{BSL,HARVESTIi}$ < 1), in year, t. Data for this variable should be obtained from harvest schedule simulation based on the historical harvest data.

Incidental loss (LBL_{BSL,OTHER,i,t}; t d.m. yr-1) is the additional live tree biomass removed for road and landing construction in the polygon, i, and is calculated as a proportion of biomass removed by harvesting:



LBL_{BSL,OTHER,i,t} = A_{BSL,i} • LB_{BSL,i,t} • f_{BSL,DAMAGE,i,t} (9)

where:

A_{BSL,i} = area (ha) of forest land in polygon, i;

LB_{BSL,i,t} = average live tree biomass (t d.m. ha-1) in polygon, i, for year, t

 $f_{BSL,DAMAGE,i,t}$ = the proportion of additional biomass removed for road and landing construction in polygon, i, year, t (unitless; 0 < $f_{BSL,DAMAGE,i,t}$ < 1). $f_{BSL,DAMAGE,i,t}$ was assumed to be 0 as the project area was already fully roaded

Dead Organic Matter Dynamics (ACBSL,DOM)

Dead organic matter (DOM) included in this methodology comprises three components: standing dead wood (minimum > 5 cm DBH and 1.3 m height; termed snags), lying dead wood (minimum > 5 cm DBH; LDW), and belowground dead wood (i.e., dead roots). Standing dead wood is < 45° of vertical, while lying dead wood is > 45° of vertical. Carbon stored within dead belowground biomass and lying dead wood pools must not be assumed to be released immediately following disturbance. Rather decay must be modeled using a scientifically credible decay function (such as the exponential model referenced in Equation 13) in which a minimum of 10 years is required for complete loss of stored carbon.

Harvested Wood Products

This methodology considers the net emissions and carbon storage related to:

a. Wood products created from harvested logs removed from the project site,

b. The fossil fuel emissions from equipment and facilities involved in the harvesting, transportation, and processing of wood products.

The annual change emissions associated with the production of harvested wood products (HWP), $\Delta C_{BSI,HWP,t}$, is calculated as:

$\Delta C_{BSI,HWP,t} = \Delta C_{BSL,STORHWP,t} - \Delta C_{BSL,EMITFOSSIL,t}$ (18)

 $\Delta C_{BSL,STORHWP,t}$ = the annual change in harvested carbon that remains in storage after conversion to wood products (t C yr-1)

 $\Delta C_{BSL,EMITFOSSIL,t}$ = the annual change in fossil fuel emissions from harvesting (logging and log transport) and processing of the various wood products.

Carbon storage in harvested wood products ($\Delta CBSL$,STORHWP,t)

In accordance with the VCS AFOLU requirements (Version 3)21, emissions of carbon stored within harvested wood products in IFM projects must be modeled based upon the following criteria:

a) For short-term wood products and wood waste that would decay within 3 years, all carbon must be assumed to be lost immediately.

b) For medium-term wood products that are retired between 3 and 100 years, a 20-year linear decay function must be applied.

c) For long-term wood products that are considered permanent (ie, carbon is stored for 100 years or more), it may be assumed no carbon is released.

The annual change in carbon storage in harvested wood products in year t ($\Delta C_{BSL,STORHWP,t}$; t C yr-1) is determined based upon the following equation:

 $\Delta C_{BSL,STORHWP,t} = (C_{BSL,STORHWP,t2} - C_{BSL,STORHWP,t1}) / T (19)$ where:

 $C_{BSL,STORHWP,t2}$ = carbon storage in harvested wood products at t=2; t C $C_{BSL,STORHWP,t1}$ = carbon storage in harvested wood products at t=1; t C T = number of years between monitoring t1 and t2. In this cases, modeling interval were annual,

so T = 1

t : 1,2,3...t years elapsed since the project start date

Storage in the harvested wood products pool at a given time t (CBSL,STORHWP,t; t C) is calculated according to the following steps for each harvest period h:

Step 1 (Carbon contained in harvested timber)

First the carbon contained within harvested timber removed from the project landbase is determined. This is determined within CBM based on the implemented harvest schedule.

 $C_{BSL,TIMBER,h}$ = carbon contained in timber harvested in period h (summed for all harvested polygons, i); t C.

LBL_{BSL,FELLINGS,i,h} = annual removal of live tree biomass due to commercial felling in polygon, i; t d.m. (equation 8)

LBL_{BSL,OTHER,i,h} = annual removal of live tree biomass from incidental sources in polygon, i; t d.m. (equation 9)

Ri is the root:shoot ratio in polygon, i (see equation 5b).

1 - $f_{BSL,BRANCH,i,h}$ the proportion of live tree biomass remaining after netting out branch biomass, in polygon i (unitless; $0 < f_{BRANCH,i,t} < 1$)(see equation 12)

1 - $f_{BSL,BUCKINGLOSS,i,h}$ = the proportion of the log bole remaining after in-woods log processing/bucking for quality, length, etc., in polygon, i (unitless; 0 < $f_{BUCKINGLOSS,i,t}$ < 1) (equation 12)

h = harvest period ; yr

Step 2 (Carbon contained in harvested timber after milling)

The gross quantity of carbon contained in harvested timber for each of the four product types described in Step 1 must be decremented to account for losses during processing (equation 21). These losses including bark and other milling wastes and may be determined using local data or estimated based upon region and product type according to Table 1.5 in the 1605(b) document.

To estimate the carbon content of HWP after milling, conversion factors for Romania sourced from (UN/ECE-FAO, 2010) were employed. These conversion factors provide insight into the amount of carbon retained in HWP following the milling process. Conversion factors indicate how much on an input is needed to produce 1 unit of output.

The milling efficiency can then be calculated:

Milling efficiency = 1 / Conversion Factor

For sawn wood products, the milling recovery rates specific to Romania were determined to be 59% for softwood and 63% for hardwood (based on conversion factors of 1.7 and 1.6 respectively).

For the milling efficiencies of pulp the output is given in tons while the input is given in m3. Accordingly, the input was first transformed to tons by multiplying by the wood density (to get the tons equivalent of wood need to produce on tons of pulp). The wood density of softwood was set



to 0.47 (*P. abies*) and for hardwood 0.68 (*F. sylvatica*) based on values reported in de Vries et al (2003). The corrected conversion factor for pulp were hence were hence:

Softwood: 2.6 m3/tons * 0.47 tons/m3 = 1.22

Hardwood: 2.6 m3/tons * 0.68 tons/m3 = 1.77

Where 2.6 m3/tons was the original conversion factor for roundwood to mechanical pulp.

As the conversion factor is not reported for soft- and hardwood seperately, the weighted average of the corrected pulp conversion factor was based on the harvest soft- and hardwood shares in Romania roundwood production (INSTITUTUL NATIONAL DE STATISTICA, 2022).

Conversion factor = 1.22 * 57% softwood + 1.77 * 43% hardwood = 1.43

Accordingly, the milling efficiency for pulp could be calculated:

Pulp milling efficiency = 1/1.43 = 70%

It is important to note that the most conservative conversion factors (mechanical pulp instead of chemical pulp) were selected in order to provide a cautious estimate (i.e. relatively high recovery rates were assumed).

Step 3

For each harvest period h, carbon stored in harvested wood products of a defined type (k) after accounting for milling losses (C_{BSL,MILL,h,k}) must be apportioned into one of the following categories:

a) Short lived wood products: harvested wood products and wood waste that will decay within 3 years.

b) Medium lived wood products: harvested wood products and wood waste that will be retired between 3 and 100 years from the date of harvest.

c) Long lived wood products: harvested wood products and wood waste that may be considered permanent (stored for 100 years or more).

To determine the proportion of harvested wood products (by type) that fall into each category, refer to the "In Use" column for the selected forest region in Table 1.6 in the 1605(b) document. Table 3 provides recommendations for analogs for areas within North America but outside of the conterminous US. However, the appropriateness of the analog outside of North America must be justified.

Three values are then calculated from these data selected from Table 1.6 in the 1605(b) document, for each product type, k : the short-lived fraction ($P_{BSL,SLF,k}$), medium-lived fraction ($P_{BSL,MLF,k}$), and long-lived fraction ($P_{BSL,LLF,k}$):

```
P<sub>BSL,SLF,k</sub> = 1-P3-year (22a)
P<sub>BSL,LLF,k</sub> = P100-year (22b)
P<sub>BSL,MLF,k</sub> = P3-year – P100-year , (22c)
```

Each category of wood products (k) stores carbon according to the following rules:

i. Short-lived wood products – immediate emission of all carbon upon harvest

- Medium-lived wood products no emission of carbon upon harvest, but carbon stored will decrease by 1/20th for the next 20 years after harvest, such that after 20 years the term becomes zero
- *iii.* Long-lived wood products no loss of carbon.

The fraction of HWP allocated to short-, medium-, and long-term wood products was calculated using the values reported in the 1605(b) document (Smith *et al.*, 2006), as recommended in VM0012. Since the project area shares similar environmental conditions with the Northeastern US, the values specific to this region were utilized. These values provide insights into the distribution of HWP over different timeframes.

Product type	Product category	Softwood	Hardwood
Sawn wood products	Short-term	50.5%	50.0%
	Medium-term	41.0%	46.5%
	Long-term	9.5%	3.5%
Pulp wood products	Short-term	68.3%	50.4%
	Medium-term	67.7%	40.1%
	Long-term	0.6%	10.3%

Fossil fuel emissions associated with logging, transport and manufacturing

Not applicable, this is conservative.

Project Emissions

Net project emissions are calculated by repeating the procedures in Section 8.1 (Baseline Emissions), using the project scenario polygons, data, and modeling. Project proponent has calculated baseline and project emission using Carbon Budget Model of the Canadian Forest Service (CBM) and the use of the model is allowed as per the applied methodology (VM0012,version 01.2).

All modeling methods, calculations, assumptions, and data sources is consistent in both the baseline and project scenarios.

In order to comply with the IFM-LtPF project type and this methodology, these activities must meet the following requirements:

1. All net GHG emissions from project activities must be modeled and accounted for in the project scenario in the same manner as the baseline scenario.

2. Project activities cannot remove > 20% of the harvesting volume projected in the baseline scenario over an equivalent 10-year period.

3. Project proponents must be able to demonstrate that activities: a. have a conservation benefit and are consistent with principles of managing for biodiversity^{/16/}, ecosystem function, and carbon retention.

b. are related to restoration, ecological management, or emissions risk reduction

The project followed the steps under section 8.3.1 Activity Shifting Leakage of the VM0012 v1.2 to demonstrate that there is no risk of activity shifting leakage onto other properties owned by Carpathia as they are a conservation organization without a timber management mandate for their properties.



Step 1: The project proponent provided the supporting documentation of the eligible areas and project boundaries to the validators/verifiers of which the project proponent has ownership, management and rights of access and use.

Step 2: The project proponent demonstrated that there was no shifting activity leakage to the areas outside of the project area through the provision of the first option (of the three) based on the methodology requirements.

VVB also confirms that the project followed the steps under section 8.3.2 Market Leakage of the VM0012 v1.2 for market leakage estimation.

1. Apply the most current VCS market leakage tool to determine a discount factor to the net change in carbon stock associated with the activity that reduces timber harvest (section 8.3.3 of VM0012 v1.2); OR

The project proponent followed this step 1 to demonstrate the market leakage estimation.

2. Develop a project-specific market leakage factor that accounts for country level leakage within similar forest type

Table XVII: Ex-ante estimates of baseline and project scenario emissions, leakage and net GHG emission reductions. Negative emissions indicate removals

Year	Estimated baseline emissions (tCO ₂ e)	Estimated project emissions (tCO ₂ e)	Estimated leakage emissions (tCO ₂ e)	Estimated net GHG emission reductions or removals (tCO ₂ e)
2017	0	0	0	0
2018	-25,368.5	-67,347.4	0	41,978.8
2019	-21,267.2	-67,730.2	0	46,463.0
2020	-33,137.1	-68,102.1	0	34,965.0
2021	-18,389.0	-67,382.0	0	48,993.0
2022	-14,352.7	-67,849.1	0	53,496.4
2023	-15,131.0	-67,966.0	0	52,835.0
2024	-14,379.7	-67,249.1	0	52,869.4
2025	-26,295.4	-67,222.1	0	40,926.6
2026	-13,499.6	-66,323.2	0	52,823.7
2027	-19,138.3	-65,953.3	0	46,815.0
2028	-3,337.2	-66,185.7	0	62,848.5
2029	-4,084.0	-65,773.9	0	61,689.9
2030	-14,377.7	-64,939.8	0	50,562.1
2031	1,156.9	-63,305.2	0	64,462.1
2032	-1,478.7	-64,250.6	0	62,771.9
2033	1,392.4	-64,999.7	0	66,392.1
2034	-1,050.2	-61,988.9	0	60,938.8
2035	-9,025.1	-61,318.9	0	52,293.7
2036	131.6	-59,877.5	0	60,009.1
2037	-2,124.7	-58,894.5	0	56,769.8
2038	-243.4	-59,089.0	0	58,845.6
2039	962.8	-57,801.7	0	58,764.4
2040	-13,354.3	-57,411.7	0	44,057.5
2041	1,817.1	-56,156.4	0	57,973.5



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2042	3,609.9	-55,017.8	0	58,627.7
2043	1,233.5	-56,873.8	0	58,107.4
2044	-788.9	-55,118.2	0	54,329.3
2045	-5,137.5	-54,947.1	0	49,809.6
2046	-959.5	-51,938.2	0	50,978.7
2047	4,000.5	-53,742.1	0	57,742.6
2048	1,123.8	-56,716.5	0	57,840.4
2049	-2,469.1	-56,249.4	0	53,780.3
2050	-10,446.0	-55,614.4	0	45,168.4
2051	-1,177.3	-54,113.5	0	52,936.3
2052	3,546.4	-53,675.4	0	57,221.9
2053	-1,938.1	-53,361.0	0	51,422.9
2054	-1675.3	-52,779.5	0	51,104.1
2055	-11,671.3	-52,082.8	0	40,411.6
2056	-271.8	-50,549.5	0	50,277.8
2057	591.6	-50,054.1	0	50,645.7
Total	-267,001.8	-2,397,951.2		2,130,949.4

Table XVIII: Ex-ante estimates gross GHG emission reductions, leakage, Buffer contributions and annual VCUs.

Year	Estimated gross GHG emission reductions or removals	Estimated leakage emissions	Non- Permanence Buffer Contribution	Annual Saleable VCUs
2017	0	0	0	0
2018	41,978.8	0	6,716.6	35,262.2
2019	46,463.0	0	7,434.1	39,028.9
2020	34,965.0	0	5,594.4	29,370.6
2021	48,993.0	0	7,838.9	41,154.1
2022	53,496.4	0	8,559.4	44,937.0
2023	52,835.0	0	8,453.6	44,381.4
2024	52,869.4	0	8,459.1	44,410.3
2025	40,926.6	0	6,548.3	34,378.4
2026	52,823.7	0	8,451.8	44,371.9
2027	46,815.0	0	7,490.4	39,324.6
2028	62,848.5	0	10,055.8	52,792.7
2029	61,689.9	0	9,870.4	51,819.6
2030	50,562.1	0	8,089.9	42,472.2
2031	64,462.1	0	10,313.9	54,148.2
2032	62,771.9	0	10,043.5	52,728.4
2033	66,392.1	0	10,622.7	55,769.4
2034	60,938.8	0	9,750.2	51,188.6
2035	52,293.7	0	8,367.0	43,926.7
2036	60,009.1	0	9,601.5	50,407.6
2037	56,769.8	0	9,083.2	47,686.6
2038	58,845.6	0	9,415.3	49,430.3



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2056 2057 Total	50,277.8 50,645.7 2,130,949.4	0 0 0.0	8,044.4 8,103.3 340,951.9	40,222.2 40,516.5 1,780,243.0
2055	40,411.6	0	6,465.8	32,329.2
2054	51,104.1	0	8,176.7	40,883.3
2053	51,422.9	0	8,227.7	41,138.3
2052	57,221.9	0	9,155.5	48,066.4
2051	52,936.3	0	8,469.8	44,466.5
2050	45,168.4	0	7,226.9	37,941.4
2049	53,780.3	0	8,604.9	45,175.5
2048	57,840.4	0	9,254.5	48,585.9
2047	57,742.6	0	9,238.8	48,503.8
2046	50,978.7	0	8,156.6	42,822.1
2045	49,809.6	0	7,969.5	41,840.1
2044	54,329.3	0	8,692.7	45,636.6
2043	58,107.4	0	9,297.2	48,810.2
2042	58,627.7	0	9,380.4	49,247.3
2041	57,973.5	0	9,275.8	48,697.7
2040	44,057.5	0	7,049.2	37,008.3
2039	58,764.4	0	9,402.3	49,362.1

3.3.8 Monitoring Plan

The monitoring plan has been defined against the requirements of section 9.1 of Methodology VM0012 (version 1.2)^{/B02/}. VVB has assessed all parameters (fixed and to be monitored) from VCS PD^{/01/}.

Assessment of Data/Parameters available at validation (as per CCB & VCS PD/01/)

Table XVIII: Assessment of Data and parameters available at validation:

Data/Parameters fixed	Value Applied	VVB Assessment
Absl,i, Aprj,i	-	Verified and checked by the VVB, through review of CCB & VCS PD ^{/01/} and GIS maps and shapefiles ^{/04/} .
BEF	CBM-CFS3 regionally calibrated default settings	The equation and parameter for has been referred from peer-reviewed literature and calibrated for European Climatic Units 34, 35, 36 and tree species ^{/13-48/} ; verified and checked by the VVB through review of ex-ante growth model.
fbranch,i,t, fbuckingloss,i,t	CBM-CFS3 regionally calibrated default settings.	The equation and parameter for has been referred from peer-reviewed literature and calibrated for European Climatic Units 34, 35, 36 and tree species ^{/13-48/} ; verified and checked by the VVB through review of ex-ante growth model.
CF	0.5 (CBM-CFS3 default)	VVB confirms that the default CBM-CFS3 default value ^{/B04/} applied for the carbon



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		fraction is valid and applicable. VVB confirms the value is valid and appropriate
Root-to-Shoot Ratio	CBM-CFS3 regionally calibrated default settings	The Conservative default value used for the root shoot ratio of trees is accessible in https://data.jrc.ec.europa.eu/dataset/jrc-cbm-eu-aidb has been used by the PP which is deemed valid and applicable by the VVB.
$\begin{array}{l} \Delta C_{t}, \ \Delta C_{P,t}, \ \Delta C_{LB,t}, \\ \Delta C_{DOM,t}, \ \Delta C_{G,t}, \ \Delta C_{L,t}, \\ \Delta C_{LDW,t}, \ \Delta CSNAG,t, \\ \Delta C_{DBG,t} \end{array}$	-	VVB confirms that the annual changes in carbon balance, carbon stock of all pools and stocks are calculated and tracked in CBM and can be derived from CBM outputs. VVB confirms the value is valid and appropriate
ΔChwp,t,	-	VVB confirms that it is calculated in equation 18 (Section 8.1 of VM0012); equation 46 (Section 8.2 of VM0012). VVB confirms the value is valid and appropriate.
P _{3-year} and P _{100-year}	Softwood and hardwood pulpwood: P3 = 31.7% and 49.6%; $P100 = 0.6%and 10.3\%respectivelySoftwood andhardwood saw wood:P3 = 49.5%%$ and 50%; $P100 = 9.5%and 3.5\%respectively$	VVB confirms that it has been calculated for the baseline and project case based on Smith et al., (2006) VVB confirms the value is valid and appropriate.
Pbsl,slf, Pbsl,mlf, Pbsl,llf	Refer to table in section 3.3.7	VVB based on the on-site inspection ^{/I01-I39/} and justification confirms that the calculation is inline with VM0012 v1.2. VVB confirms the value is valid and appropriate.
Ftransportk	0	VVB confirms that fossil fuel emissions from harvest and transport were set to 0 for conservativeness. VVB confirms the value is valid and appropriate.
CHARVEST	0	VVB confirms that fossil fuel emissions from harvest and transport were set to 0 for conservativeness. VVB confirms the value is valid and appropriate.
CMANUFACTUREk	0	VVB confirms that fossil fuel emissions from wood processing were set to 0 for conservativeness. VVB confirms the value is valid and appropriate.
CTRANSPORTK	0	VVB confirms that fossil fuel emissions from harvest and transport were set to 0 for conservativeness. VVB confirms the value is valid and appropriate.
dtransportk	0	VVB confirms that fossil fuel emissions from harvest and transport were set to 0 for conservativeness. VVB confirms the value is valid and appropriate.



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CEMITTRANSPORT,t	0	VVB confirms that fossil fuel emissions from
		harvest and transport were set to 0 for conservativeness. VVB confirms the value is
		valid and appropriate.
Gag,I,t	Data can be found in the VCU calculation Excel spreadsheet	VVB confirms that CBM calculates annual increment rates based on available volume yield tables, allometric equations, and mortality. Annual increment rates are tracked internally for each polygon. VVB confirms the value is valid and appropriate.
G _{BG,i,t}	Data can be found in the VCU calculation Excel spreadsheet	VVB confirms that CBM calculates annual increment rates based on available volume yield tables, allometric equations, and mortality. Annual increment rates are tracked internally for each polygon. VVB confirms the value is valid and appropriate.
LBL _{NATURALi,t}	Data can be found in the VCU calculation Excel spreadsheet	VVB confirms that CBM calculates annual increment rates based on available volume yield tables, allometric equations, and mortality. Annual increment rates are tracked internally for each polygon. VVB confirms the value is valid and appropriate.
LBL _{FELLINGSi,t}	Data can be found in the VCU calculation Excel spreadsheet	VVB confirms that the data can be found in the VCU calculation Excel spreadsheet. VVB confirms the value is valid and appropriate.
LBL _{OTHERi,t}	Data can be found in the VCU calculation Excel spreadsheet	VVB confirms that the data can be found in the VCU calculation Excel spreadsheet. VVB confirms the value is valid and appropriate.
LB _{i,t}	Data can be found in the VCU calculation Excel spreadsheet	VVB confirms that the data can be found in the VCU calculation Excel spreadsheet. VVB confirms the value is valid and appropriate.
FBSL,NATURAL,I,t, fBSL,BLOWDOWN,i,t	5% (CBM-CFS3 default value)	VVB confirms that the value is regionally calibrated and peer reviewed. Applied mortality adequately covers both self-thinning and natural disturbance induced mortality. VVB confirms the value is valid and appropriate.
FBSL,HARVEST,I,t	-	VVB confirms that the harvest scheduling can not be performed internally in CBM. The harvest scheduling ensure that harvests are subject to availability (i.e., harvests only occur if stand are mature). This ensures are more conservative estimation of biomass removed by harvesting than might be the case if fixed annual harvest rates were applied. VVB confirms the value is valid and appropriate.
fbsl,damage,i,t	Data can be found in the VCU calculation Excel spreadsheet	VVB confirms that the data can be found in the VCU calculation Excel spreadsheet. VVB confirms the value is valid and appropriate.
FBSL, SNAGFALLDOWN, I, t,	-	VVB conforms that it is regionally calibrated
fBSL,IwDECAY,i,t,		and peer-reviewed. VVB confirms the value is
f BSL,SWDECAY,i,t		valid and appropriate.
SNAG _{BSL,i,t} , DBG,i,t	-	VVB confirms that it is calculated and tracked in CBM. VVB confirms the value is valid and appropriate.



$\Delta C_{\text{STORHWP1},t}$	-	VVB confirms that it is calculated in lined with the follow methodology outlined in VM0012. VVB confirms the value is valid and appropriate.
$\begin{array}{c} C_{\text{MILL},h,k} \text{ , } C_{\text{TIMBER},h}, \\ C_{\text{STORHWP},h,t} \end{array}$	-	VVB confirms that it is calculated during post- processing of CBM outputs. VVB confirms the value is valid and appropriate.
Rrnd,k	Values are available in Excel spreadsheet	VVB confirms that it is official conversion factor reported for Romania. VVB confirms the value is valid and appropriate.
f _{RND,k}	Values are available in Excel spreadsheet	VVB confirms that it is the most recent official data for Romania. VVB confirms the value is valid and appropriate.
ΔC EMITFOSSIL,t	0	VVB confirms that it is set to be 0 for conservativeness. VVB confirms the value is valid and appropriate.
Cemitharvest,t, Cemitmanufacture,t, Cemittransport,t	0	VVB confirms that it is set to be 0 for conservativeness. VVB confirms the value is valid and appropriate.
LEy	0.2%	VVB confirms that it is calculated based on Section 8.3.2 of VM0012. VVB confirms the value is valid and appropriate.
MLFy	0	VVB confirms that it is calculated based on Section 8.3.2 of VM0012. VVB confirms the value is valid and appropriate.
BC _{hv, n}	31258.33	VVB confirms that the average of annual carbon removed during harvesting from the ex-ante baseline calculations expanded by 3.67 tCO2/tC (years 2017-2022). VVB confirms the value is valid and appropriate.
AChv, n	2365	VVB confirms that it is calculated based on Section 8.3.2 of VM0012. VVB confirms the value is valid and appropriate.
ER _{y,GROSS}	Value can be found in carbon calculations Excel spreadsheet	VVB confirms that it is calculated based on equation 57. VVB confirms the value is valid and appropriate.
ER _{y,}	Value can be found in carbon calculations Excel spreadsheet	VVB confirms that it is calculated based on equation 58. VVB confirms the value is valid and appropriate.
VCU _y ,	Value can be found in carbon calculations Excel spreadsheet	VVB confirms that it is calculated based on equation 59. VVB confirms the value is valid and appropriate.
E _P , E _I , E _M	Е _Р =12.5%, Е _I =2.4%, Е _М =10%	VVB confirmed that the calculation of uncertainty factor is based on Section 8.5.3 of VM0012. VVB confirms the value is valid and appropriate.
ER _{y,ERR}	4%	VVB confirmed that the calculation of uncertainty factor is based on Section 8.5.3 of VM0012. VVB confirms the value is valid and appropriate.
BRy,	Provided in VCS AFOLU Non-	VVB confirms that it has been calculated using the latest version of the VCS AFOLU Non-



Permanence Risk	Permanence Risk Tool. VVB confirms the
Tool	value is valid and appropriate.

3.3.9 Dissemination of Monitoring Plan and Results (CL4.2)

As per CCB & VCS PD^{/01/} and on-site inspection interviews^{/11-i39/}, the monitoring plan, and any results of monitoring undertaken in accordance with the monitoring plan, will be disseminated and made publicly available on VCS and CCB websites and on the Foundation Conservation Carpathia webpage.

Furthermore, hard copies of the project description and monitoring plan will be available at the FCC's headquarters and Annual Reports will be used to publicize information regarding the progress of the monitoring plan. Technical staff from FCC will also explain the project and monitoring plan to the local communities surrounding the project zone. VVB confirms, from the above assessment, that the dissemination of monitoring plan is in line with the CCB & VCS requirements.

3.3.10 Non-Permanence Risk Analysis

Table XIX: Non- Permanence Risk Analysis:

	Risk	VVB Assessment and Justification				
	Project Management	VVB, based on review of forest management plans ^{/06/} and annual reports ^{/07/} , confirms that the grouped project and the 1 st PAI includes the restoration of degraded land by conversion from logged to protected forests (LtPF). Hence Risk score 0 has been accepted by the VVB.				
		Furthermore, VVB has reviewed CVs of all the management and MRV personnels ^{/19/} , and confirms that the carbon project developer, FORLIANCE GmbH, has extensive technical expertise in developing AFOLU projects, as well as in-depth knowledge of national and international carbon markets. Furthermore, VVB confirms that the MRV personnels are technically competent to carry out monitoring activities ^{/19//20//} .				
		Hence, based on the review of mitigation available for experienced AFOLU personnels ^{/19//21/} and adaptive management plan ^{/06/} , a risk score of -4 is deemed acceptable by the VVB.				
XS	Financial Viability	VVB based on the CCB & VCS PD ^{/01/} confirms that The Carpathia Forest Carbon Project has available as callable financial resources at least 50% of total cash out before project reaches breakeven.				
INTERNAL RISK		Based on the financial risk identified above, VVB confirms that the overall financial risk score is 0.				
INTEF	Opportunity Cost	VVB based on review of VCS Non-Permanence risk report ^{/02/} provided by PP and on-site inspection ^{/101-139/} ,				

		confirms that the baseline activities are subsistence- driven and that net positive community impacts have been demonstrated. This is checked and confirmed by the VVB.
		Mitigation: Project is protected by legally binding commitment to continue management practices that protect the credited carbon stocks over the length of the project crediting period ^{/02/} .
		Hence VVB accepts that the risk score of 0 is valid and acceptable.
	Project Longevity	As per the review of "FCC Statutes" ^{/26-5/} and "FCC Masterplan" ^{/10/} , the project owner will implement the forest conservation practice even beyond the carbon project's crediting period of 40 years since 2017. Hence, VVB confirms that AFOLU project longevity of 40 years will be maintained by the project, which is in compliance with the requirements of VCS AFOLU Non-Permanence Risk Tool, v4.0 ^{/B01/} .
		Project Longevity Risk = 30 – (Project Longevity/ 20) = 30 – (40/20) =10
		The risk score of 10 is deemed acceptable to the VVB.
	Total Internal Risk (PM + FV + OC + PL)	In conclusion, VVB confirms that the total internal risk of 6 is deemed appropriate and valid.
	Land Tenure and Resource Access/Impacts	In accordant with the VCS Non-Permanence Report ^{/02/} , Ownership ^{/09//28/} , and resource access/use rights are held by same entities, in this case Fundatia Conservation Carpathia (FCC) holds 97% of the ownership and management rights (together with Sanatate & Natura, Almimax Natura, SC Romfor Sustainable Foresty and SC Wildland SRL) of the project areas.
EXTERNAL RISK		Mitigation: As per the review of "FCC Statutes" ^{/26-5/} and "FCC Masterplan" ^{/10/} , the project owners/ implementation partners will continue management practices over the duration of the project crediting period.
ERN		VVB confirms that the risk score of 0 is acceptable.
ЕХТ	Community Engagement	Based on the VCS Non-Permanence Report ^{/02/} and project design ^{/06/} , the project generates net positive impacts on the social and economic well- being of the neighboring local communities who receive indirect benefits from the project area, by providing employment, facilitating the access to the social security benefits, including health care and also by executing trainings related to the forest management of the planting area.
		The project is certified against the Climate, Community & Biodiversity Standards



		VVB confirms that the socio-economic impacts of the project on communities is positive, hence the risk score of -5 is acceptable.
	Political Risk	Based on the VCS Non-Permanence Report ^{/02/} and review of webpage of World Bank Databank webpage ^{/31-1/} , VVB confirms that Romania's average governance score from 2017-2022 is 0.24.
		Furthermore, Romania has also established FSC ^{/31-2/} and PEFC ^{/31-3/} standards body.
		Overall, VVB confirms Political Risk Score of 0 is valid and appropriate.
	Total External Risk (LT + CE +PC)	In conclusion, VVB confirms that the total external risk for the VCS project gives 0, which is deemed appropriate and valid
	Fire (F)	As per the VCS Non-Permanence Risk Report ^{/02/} and review of "NPRR_State of the Forests Report 2020. Ministry of Environment, Water and Forests, Romania" ^{/31-} ^{4/} , the risk of wildfires has been low in the past, however, due to climate change, PP has considered the likelihood of wildfire in the Carpathian Mountains, and expected frequency of every 10 to less than every 25 years.
L RISK		VVB has review forest management plans ^{/06/} and confirms that the management practices focus on reducing the risk of unplanned fires. FCC rangers are permanently in the field; hence, fires will be discovered quickly. Measures include cooperation with relevant state institutes and experts to prevent the spread of fires.
NATURAL		Hence, total risk score of 0.25 for risk of fire is acceptable to the VVB.
Ν	Pest and Disease Outbreaks (PD)	As per the VCS Non-Permanence Risk Report ^{/02/} and review of "NPRR_State of the Forests Report 2020. Ministry of Environment, Water and Forests, Romania" ^{/31-4/} , pest or disease outbreaks occur due to weather conditions, so generally every 10 to less than 25 years.
		VVB confirms that the project uses biological control agents and manual weeding, and does not include the use of no fertilizers or chemical pesticides ^{/06/} , to control any plague. Furthermore, the project includes restoring the forest with native species (and eliminating invasive ones), the project relies on the ecosystem's natural resilience to regulate itself.

	The evidence ^{/31-4/} and risk score of 0.25 for risk of pest and disease outbreaks is deemed appropriate to the VVB.
Extreme Weather (W)	As per the VCS Non-Permanence Risk Report ^{/02/} and internet research ^{/31-5/} , the main risk stems from heat waves leading to forest fires and from storm damage. In both cases, only single trees or small areas will be affected. Therefore insignificant (less than 5% loss of carbon stocks). The justification and risk score of 0.25 for risk of pest and
	disease outbreaks is deemed appropriate to the VVB.
Geological Risk (G)	As per the VCS Non-Permanence Risk Report ^{/02/} and internet research ^{/31-6/} , there is a 10% chance of a potentially damaging earthquake occurring in the project region in the next 50 years. The risk of landslides is generally medium high due to the rainfall patterns, terrain slope, geology, soil, land cover and the potential earthquakes in the region. In the project areas, it can be considered low due to the existing vegetation. In general, a geological hazard is expected to occur less than every 100 years
	The justification and risk score of 0 for geological risk is deemed appropriate to the VVB.
Total Natural Risk (F + PD + W + G + ON)	In conclusion, VVB confirms that the total natural risk for the VCS project gives 5.50, which is deemed appropriate and valid

Table XX: Risk Category and rating:

Risk Category	Rating
Internal Risk	6.00
External Risk	0.00
Natural Risk	5.50
Overall Risk Rating (a + b + c)	12

VVB confirms the overall risk rating of 12 as valid and appropriate.

3.3.11 Optional Gold Level: Regional Climate Change Scenarios (GL1.1)

Based on the review of the CCB & VCS PD^{/01/}, changing climatic conditions are already impacting Romania, and climate warming has become more aggressive after the 1980s and 1990s following the global patterns of global warming. Observation data collected from 1901 to 2020 show ongoing warming at both annual, by 1.3 °C for the entire period, and seasonal, especially in summer, winter, and spring, timescales (Climate-ADAPT, 2021). The consequences of the increasing aridity are seen in land degradation and the reduction of groundwater resources.



Romania is among the top 5 countries in Europe that are "most heavily affected by the expansion of strong land degradative conditions due to aridity increases across their national territories," with around 29% of its surface being critically exposed to degradation. This comes with other unfavorable conditions such as erosion processes, climatic water deficit, poor water resources, or high-salinity and sandy-textured soils. Predictions, especially for the Carpathian Mountain Range, indicate a positive trend in the abovementioned temperature increase. According to Alberton et al. (2017), the southern regions are expected to face the highest increase in temperature for summer and winter, with the former experiencing a rise of up to 2°C in the first half of the 21st century (Alberton et al., 2017). In the second half of the century, Alberton et al. (2017) state that according to the RCP 4.5 scenario, temperatures are prognosed to increase by about 2-3 °C. Meanwhile, the RCP 8.5 scenario results show an increase in summer and winter of up to 5°C. This will affect the frequency and intensity of existing heat waves in the Carpathian Mountains. Furthermore, precipitation trends show a decrease in the Southern Mountain ranges but, at the same time, more periods of intense precipitation. The expected results are higher runoff and less infiltration, which affects groundwater recharge and vegetation growth and leads to water erosion. Alberton et al. (2017) summarized that "this precipitation trend combined with less water from snowmelt, higher temperatures in summer, and, as a result, higher evapotranspiration losses will lead to a higher risk of summer droughts all over the region." Therefore, likewise to the prognosis for Romania, the frequency and severity of drought events are expected to increase in the entire Carpathian region.

VVB has reviewed all the references provided by PP in the peer-reviewed scientific literature. Based on the review of evidence VVB justifies the regional climate change scenarios in accordance with section GL1 of the CCB standard^{/B01/}.

3.3.12 Optional Gold Level: Climate Change Impacts (GL1.2)

As per CCB & VCS PD/01/,

Community well-being:

According to the study of Alberton et al. (2017), local communities will suffer from economic and livelihood losses if no measures are taken to reduce the effects of climate change. Even though the difference in climatic conditions could positively affect agriculture, such as an extension of the growing season, higher plant productivity, and the possibility of cultivating in higher altitudes, the adverse effects are likely to counterbalance them. Especially the availability of water could be a major driver when it comes to agricultural production. Shortened snow seasons and a climbing snow line threaten the local winter tourism industry and impact river discharge due to earlier snowmelt. With more frequent droughts during the summer, groundwater resources will likely experience lower recharge leading to water scarcity and reduced drinking water supplies. Other adverse consequences of warming temperatures will be the increase in the risk of wildfires, the vulnerability to pests in agriculture and forestry, changing seasonality in forestry as well as the degradation of soil. More intensive precipitation leading to heavy rain could provoke floods, soil erosion, and landslides, affecting agricultural and livestock production and settlements. A decrease in yields due to crop and root damage, a decline in areas suitable for cultivation, reduced wood production, and endangerment of the wellbeing of livestock are more negative



consequences for local livelihoods and community well-being (Alberton et al., 2017; Werners et al. 2014).

Biodiversity conservation status:

The Carpathian Mountains are a hotspot of exceptional biodiversity^{/16/} with one of the most biologically unique ecosystems worldwide. This includes one of the richest grasslands in Europe, wetlands, and the largest remaining area of virgin and old-growth forest in Europe (Werners et al. 2014), half of which is located in Romania. These ecosystems provide an important refuge and corridor for the migration of diverse species. However, the identified negative consequences of climate change in the section above do not only have an impact on the community's well-being but also on the region's biodiversity. Water scarcity and droughts, rising temperatures, wildfires, and floods are among the climate change-induced hazards affecting local ecosystems and biodiversity (Alberton *et al.*, 2017). For instance, forests at lower elevations have suffered from decline due to drought affecting, among others, biodiversity^{/16/}. In the case of wetlands, the increased temperature led to losses and a reduction and fragmentation of habitats for many dependent plant and animal species, which could threaten migratory birds and amphibians at the regional level. Likewise, the quality and coverage of grasslands are expected to decrease due to increased temperature and more extreme droughts and floods (Werners *et al.* 2014).

VVB has reviewed all the references provided by PP in the evidence document^{/12/}. Based on the review of evidence and on-site inspection/interviews^{/101-I39/}. VVB justifies the regional climate change scenarios in accordance with the section GL1 of the CCB standard^{/B01/}.

3.3.13 Optional Gold Level: Measures Needed and Designed for Adaptation (GL1.3)

As per CCB & VCS PD/01/,

Community

As identified in the social assessment in section "2.1.6 Social Parameters", the study area is characterized by low job opportunities and a rapid declining population. Subsistence-based activities, including small-scale farming, livestock, forestry, and wood processing, are the source of living in the region.

Measures	Climate Change Issues tackled	Adaptation Impact		
Job Creation, income improvement, and diversification through the development of green business plans	Limited natural resources (reduction of logging activities), Loss of biodiversity and habitat, Lack of conservation and protection of ecosystems (forest and grassland)	The project will provide employment opportunities, such as patrol service in forest areas, and alternative income opportunities from, e.g., ecotourism aimed primarily at the communities in rural areas.		
Awareness rising and knowledge transfer through the environmental education program	Lack of knowledge, Lack of adaptive capacity, Lack of awareness of the importance of biodiversity ^{/16/} and healthy forests	People from communities will understand the impacts of climate change and the role that conservation and protection play in adaptation. A shift in behavior, especially in the next generation,		



is foreseen. Fostering capacity building.

Biodiversity

Parts of the measures implemented to maintain and improve biodiversity^{/16/} against climate change are directed to the conservation, protection, and restoration of rich ecosystems in the area, such as grasslands, wetlands, and forests. Through these measures, it is possible to create suitable habitats and reintroduce key species, increase tree cover and organic matter, improve water infiltration, and increase the amount of groundwater.

Measures	Climate Change Issues tackled	Adaptation Impact
Create suitable habitats through the restoration and reintroduction of key species	Loss of biodiversity and endemic species	Increased habitat for endemic biodiversity and animals, such as bison and beaver
Increase tree cover and organic matter through reforestation of logged forest areas	Loss of Biodiversity, Risk of soil erosion and landslides	Increase carbon sequestration, Improve biological activity, Increased habitat for endemic biodiversity
Improve water infiltration capacity and increase the amount of groundwater	Risk of droughts or extreme rains	Microclimate regulation Increase water retention in soils and water quantity in streams

3.4 Community

3.4.1 Descriptions of Communities at Project Start (CM1.1)

VVB has reviewed socio-economic assessment^{/13-07/}, conducted around Fagaras Mountains in 24 districts. The study allowed Foundation Conservation Carpathia (FCC) to establish the baseline information on the livelihood activities carried out in the study zone (e.g., ecotourism, organic farming) and to assess the socio-economic impact of the project activities in the area. One of the main goals of the project developed by Foundation Conservation Carpathia (FCC) is to demonstrate positive economic change due to conservation activities through baseline data on current job employment, nature of work, and attitudes toward the nature of residents in these various communities. Approximately 66% (n~ 48 000) of the working population is within the "working population" category, between 15 and 64 years old. Along the same lines, out of ten inhabitants (n~13 550) of the local communities are seniors or above 64 years (slightly above the Romania national average). Furthermore, the children population under 15 years represented approximately 16% (n~11 550).

This has been further confirmed during on-site inspection and interviews/I1-I39/ by the VVB.

Another socio-economic assessment was carried out in the counties of Arges, Brasov, Sibiu, and Valcea (areas of project influence). This study analyzed environmental values and attitudes toward nature conservation and the creation of a wilderness reserve in the Fagaras Mountains.

The study results showed that, overall, communities were inclined to an ecological worldview and were optimistic about the rights of nature.

VVB, based on the evidence provided^{/13-07/} and on-site inspection, confirms that the description of regional climate change scenarios, is in accordance section CM 1 of the CCB standard v3.1^{/B01/}.

3.4.2 Interactions between Communities and Community Groups (CM1.1)

Based on the CCB & VCS PD^{/01/} the Foundation Conservation Carpathia project area has direct influence on 13 Administrative – territorial Units (ATUs) and three counties (Arges, Valcea, and Dombovita). These units are independent and follow the government structure of their respective county. The county is the administrative unit headed by a county council and a prefect, who is appointed by the government as its local representative. In most regions, so-called GALs (Local action groups) have formed, which are private-public partnerships, usually consisting of several communities and representatives of the civil society (private individuals, NGOs, corporates). Together they develop ideas for rural development and apply for funding, especially in relation to tourism development and promotion. FCC is in contact with some of these GALs as activities and interests overlap.

This has been further confirmed by the VVB, during the interview of Mayor, Deputy Mayor and city hall employee of Lerești^{/I-15/-/I-17/}.

3.4.3 High Conservation Values (CM1.2)

VVB based on review of PD^{/01/} and on-site inspection/interviews^{/101-140/} confirms that no HCV related to community was identified for this project.

3.4.4 Without-Project Scenario: Community (CM1.3)

In line with the CCB & VCS PD^{/01/}, without implementing the project, the business-as-usual scenario will continue with the current management regime for non-timber forest products as well as for tourism. Within this regime, the communities surrounding the project area will continue to be impoverished and lack a long-term economic perspective based on nature. This regimen will continue dominating the younger generations and their reluctance to consider forest conservation a profitable and more sustainable option. For instance, exploitation of non-timber forest products (mushrooms, medicinal plants, fruit) will continue to be dominated by informal economic activities; hunting grounds derive limited income from the annual membership fee, despite operating up to the maximum allowable exploitation rate.

Based on review of PD^{/01/}, supporting evidence^{/12/}, and on-site inspection/interviews^{/101-139/}, VVB confirms that the projection for status of community, without project implementation, is plausible and thus acceptable.

3.4.5 Expected Community Impacts (CM2.1)

VVB has reviewed FCC Master Plan^{/10/} which emphasizes that conservation is a better option for local communities when it represents an economic incentive for them. The carbon project implemented by FCC also focuses on robust, meaningful, and impactful benefits for the



communities around the project area. VVB has assessed the community impacts of the project, as stated below:

Project's Expected Community Impacts	VVB Assessment
Direct employment was created for	Checked and verified by on-site inspection
technical/office staff, fieldwork rangers, and	interviews/101-139/ and review of employment
seasonal workers.	contracts ^{/17-2/} and CVs of employees ^{/19/} .
	Furthermore, VVB has reviewed labour and
	wage law of the host country as well as
	company employment policies ^{/21/} .
Educational programs for developing	Checked and verified by on-site inspection
ecotourism,	interviews ^{/101-139/} and review of educational
ecolourism,	
	training records/20/.
Food-Hub to support small-scale farmers, and	Checked and verified by on-site inspection
	interviews ^{/I01-I39/} .
Cobor Biodiversity farm.	Checked and verified by on-site inspection
	interviews ^{/101-139/} and review of Annual
	Reports for 2020, 2021 and 2022 ^{/07/} .
Increase local job opportunities, creation of	Checked and verified by on-site inspection
long-term jobs, Creation of short-term jobs.	interviews ^{/I01-I39/} and review of employment
	contracts ^{/17-2/} and CVs of employees ^{/19/} .
	Furthermore, VVB has reviewed labour and
	wage law of the host country as well as
	company employment policies ^{/21/} .
FCC will continue to develop and conduct	Checked and verified by on-site inspection
school programs for local schools in Richita	interviews ^{/101-139/} and review of FCC Master
Centre and a second center on the North side	plan ^{/10/}
of the Fagaras Mountains, which will build in	plan
the next four years. These school programs	
will be interlinked with long-term junior ranger	
programs. Local pupils will be supported to	
university degrees to qualify for future jobs at	
the National Park or national and international	
summer camps. Environmental education for	
adults in various, attractive ways is another	
part of this group of activities.	
	Checked and verified by on-site inspection
FCC organizes annual ranger training, usually	checked and vermed by on-site inspection
implemented by our partner organization	interviews ^{/I01-I39/} and review of educational
ProPark, a capacity-building provider for	training records ^{/20/} .
protected areas. Training should ensure that	
rangers understand ecological contexts and	
include a diversity of topics such as	
environmental footprint, trophic chains, the	
impact of reintroductions, protected area	
management, resilience of ecosystems, food	
chains, etc.	
FCC will assist local communities in	Checked and verified by on-site inspection
developing sustainable development plans	interviews ^{/I01-I39/} and review of FCC Master
and help create capacity by training town hall	plan ^{/10/}
teams in fundraising, proposal writing,	plan ^{/10/}
teams in fundraising, proposal writing, communication, and social media.	
teams in fundraising, proposal writing, communication, and social media. FCC pursues building positive relationships	Checked and verified by on-site inspection
teams in fundraising, proposal writing, communication, and social media.	



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areas through participatory management mechanisms, and developing a stakeholder platform for zoning and land-use planning for the conservation area.

3.4.6 Negative Community Impact Mitigation (CM2.2)

VVB, based on the review of community baseline survey report^{/17/}, forest management plans^{/06/} and FCC annual reports^{/07/} and on-site inspection interviews, confirm that project activities are designed to positively impact the project beneficiaries, communities, and other stakeholders identified and it is expected that implementing the project activities does not generate negative impacts but will improve the livelihood of the surrounding communities and protect the pristine forest.

3.4.7 Net Positive Community Well-Being (CM2.3, GL1.4)

During the on-site inspection interviews and review of community baseline survey report^{/17/}, VVB confirms that without the implementation of the 1st PAI the natural resources will continue to deplete, for short-term income. In the pre-project scenario, these mountain communities face several challenges, including a lack of long-term vision for their regions, minimal political interest in their development, scarce long-term job opportunities, and a trend of younger generations leaving due to a lack of prospects.

VVB has observed that the social and educational programs initiated by Casa Buna (in collaboration with CARPATHIA)^{/07/} have played a significant role in raising awareness of the project within these communities. This has led to a shift in how the project is perceived. Notably, the "Food for Elders" program^{/07/}, which provided over 4,800 food packages for two months at the onset of the pandemic, was a transformative effort. It not only offered crucial assistance to elderly individuals in need but also served as a catalyst for dialogue and collaboration with these communities.

VVB, based on the above review, concludes that the net positive community impacts of the project have been justified and in compliance with CCB requirements/^{B01/}.

3.4.8 High Conservation Values Protected (CM2.4)

Based on the CCB & VCS PD^{/01}, no HCV related to community well-being will be negatively affected and protected through the project activities; checked and verified from the review of forest management plan^{/06/}, FCC annual reports^{/07/} and FCC master plan^{/10/}.

3.4.9 Impacts on Other Stakeholders (CM3.1)

In accordance with the CCB & VCS PD^{/01/}, the project has no negative effects that are expected to affect the well-being of other stakeholders during the project lifetime.

VVB, based on the desk review^{/27/} during the on-site Inspection and interviews^{/11-139/}, confirmed that the project will not result in net negative impact on other stakeholders.

3.4.10 Mitigation of Negative Impacts on Other Stakeholders (CM3.2)

Based on above assessment in section 3.4.9., VVB confirms that no negative effects are expected to cause on the well-being of other stakeholders during the project lifetime, hence no mitigation is required.

3.4.11 Net Impacts on Other Stakeholders (CM3.3)

Based on above assessment in section 3.4.9., VVB confirms that no adverse impacts are expected on other stakeholders. On the contrary, other stakeholders will benefit from the project activities. Even though the project activities are focused on private land, the benefits are beyond the project area since it is expected to improve forest connectivity and ecosystem services and diversify income-generating activities. The PP and forest technicians and stakeholders during the on-site visit and the interview^{/(11-139/}, confirmed that the project will not result in net negative impact on other stakeholders.

3.4.12 Community Monitoring Plan (CM4.1, CM4.2, GL1.4, GL2.2, GL2.3, GL2.5)

VVB has review the CCB & VCS PD^{/01/} and community monitoring plan^{/17/}, VVB confirms that FCC has two main strategies/objectives to involve and raise awareness in the communities:

(1) to increase livelihoods in the local communities by establishing a new economy based on conservation, and

(2) to increase support for the conservation concept and acceptance of the protected area in local communities near the project area.

OBJECTIVE	INDICATOR	Data Collection Method	WHO	FREQUENCY	WHERE/A rea	OBSERVATIONS
Objective	e: To increase livelihoo		ommunition	es by establishing	g a new econ	omy based on
full time and seasonal jobs created Develop Eco-tourism	 # of full-time jobs created # of men employed # of women employed # of partnerships with international agencies # of workshops in hiking and wildlife programs Eco-volunteer and corporate programs # of trained guides 	Key people interview, reports. Signed contracts Surveys List of attendance Reports	FCC and partner s	Five Years	Communiti es around the project area Communiti es around the project area	Rangers, FCC staff, and seasonal staff (restoration activities)
developing sustainable businesses	# of producers participating in the Food Hub program	Surveys Interviews Record/regist er	FFC	Five years	Communiti es around the project area	A targeted marketing strategy will ensure sales of 25,000 products respectively

The objectives and indictors are stated below:



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	# of communes participating in the Food Hub Program					revenues of €125,000 per month by 2025.
	increase support for near the project area	the conservatio	n concep	t and acceptance	e of the prote	ected area in local
Fewer human- wildlife conflicts	Type and magnitude (number) of conflict intensity and changes in their relative representation over time	Records of location, species involved, type and severity of the incident, local circumstances and protection systems in place, economic damage, etc., introduced in the mobile app of the Rapid Intervention Team	FCC and its entities	Five years	All FCC GMUs	Results will be communicated to local communities to demonstrate actual cases and causes of wildlife- human conflicts to decision-makers
Social & educational programs	# of workshops/programs implemented # of participants/pupils	Workshops and capacity building Attendance lists Video and Photos evidence	Social progra ms implem ented by Casa Buna (under the commo n brandi ng with CARP ATHIA; FCC	Five years	those commune s where FCC has landowner ship	
Local development plans and building capacity within the local communities	# of workshops and capacity buildings in fundraising and proposal writing, communication & social media # of participants # of sustainable development plans	Workshops and capacity building Attendance lists Video and Photos evidence		Five years	those commune s where FCC has landowner ship	

VVB, based on the review of forest management plan^{/06/}, FCC annual reports^{/07/} and FCC master plan^{/10/} as well as on-site inspection interviews^{/11-139/} with the local officer and management team, confirms that the objective and indicators have been justified, considering all the possible methods and procedures to monitor the change to the communities. This is confirmed during the on-site visit and the interview^{/11-139/} with the local officer and management team.

3.4.13 Monitoring Plan Dissemination (CM4.3)

As per CCB & VCS PD^{/01/} and on-site inspection interviews^{/110-139/}, the monitoring plan, and any results of monitoring undertaken in accordance with the monitoring plan, will be disseminated and made publicly available on VCS and CCB websites and on the Foundation Conservation Carpathia webpage.

Furthermore, hard copies of the project description and monitoring plan will be available at the FCC's headquarters and Annual Reports will be used to publicize information regarding the progress of the monitoring plan. Technical staff from FCC will also explain the project and monitoring plan to the local communities surrounding the project zone. VVB confirms, from the above assessment, that the dissemination of monitoring plan is in line with the CCB & VCS requirements.

3.4.14 Optional Gold Level: Exceptional Community Criteria (GL2.1)

The project does not seek to be validated at the Gold Level for the exceptional benefits of the community.

3.4.15 Optional Gold Level: Short-term and Long-term Community Benefits (GL2.2)

The project does not seek to be validated at the Gold Level for the Short-term and Long-term benefits of the community, hence, it is not applicable.

3.4.16 Optional Gold Level: Community Participation Risks (GL2.3)

The project does not seek to be validated at the Gold Level for the participation risks of the community, hence, it is not applicable.

3.4.17 Optional Gold Level: Marginalized and/or Vulnerable Community Groups (GL2.4)

The project does not seek to be validated at the Gold Level for the marginalized and/or vulnerable community groups , hence, it is not applicable.

3.4.18 Optional Gold Level: Net Impacts on Women (GL2.5)

The project does not seek to be validated at the Gold Level for the net impacts on women, hence, it is not applicable.

3.4.19 Optional Gold Level: Benefit Sharing Mechanisms (GL2.6)

The project does not seek to be validated at the Gold Level for the benefit sharing mechanisms, hence, it is not applicable.

3.4.20 Optional Gold Level: Benefits, Costs, and Risks Communication (GL2.7)

The project does not seek to be validated at the Gold Level for the Benefits, Costs, and Risks Communication, hence, it is not applicable.

3.4.21 Optional Gold Level: Governance and Implementation Structures (GL2.8)

The project does not seek to be validated at the Gold Level for the governance and implementation structures, hence, it is not applicable.

3.4.22 Optional Gold Level: Smallholders/Community Members Capacity Development (GL2.9)

The project does not seek to be validated at the Gold Level for the Smallholders/Community Members Capacity Development, hence, it is not applicable.

3.5 Biodiversity

3.5.1 Existing Conditions (B1.1)

Based on the CCB & VCS PD^{/01/} the project zone consists of four main areas: The Piatra Craiului area, the Leaota area, the Râul Târgului-Argeșel-Râușor area, and the Făgăraș Mountains area, including the Vâlsan river valley. All project areas show a high diversity of plant and animal species. Some areas are considered to be near threatened (NT), vulnerable (VU), endangered (EN), rare (R), and/or endemic (E) and listed in the Habitat and Birds Directive of the European Union, IUCN Red List and/or the Romanian National Red Lists 1, 2 and 3.

Flora

According to previous studies carried out in the project area, vegetation in the area occurs in distinct altitudinal zones with the following composition:

- Pioneer species such as rowan (*Sorbus aucuparia*), goat willow (*Salix caprea*), or birch (*Betula pendula*) are present at all altitudes.

- From 850 - 1,250 masl: These areas are mostly characterized by deciduous woods - predominantly beech (*Fagus sylvatica*), mixed with sycamore (*Acer pseudoplatanus*) and elm (*Ulmus glabra*).

- From 1,450 - 1,500 masl: Species such as fir (*Abies alba*) and spruce (*Picea abies*) are seen in this elevation.

- From 1,800 - 1,850 masl: *Picea abies* and the Swiss pine (*Pinus cembra*) form the alpine tree line that characterizes this elevation gradient.

- Above 1,800 masl, subalpine bushes begin to dominate the areas, mostly characterized by the dwarf pine (*Pinus mugo*), Carpathian rhododendron (*Rhododendron kotschyi*), bilberry (*Vaccinium myrtillus*) and juniper (*Juniperus communis*).

In the south-eastern Fagaras Mountains, a few individuals of yew (*Taxus baccata*) survived as a sign of its former existence. As a result, FCC has reintroduced 150 yews back into the Dambovita Valley.



The Fagaras Mountains, Piatra Craiului, and Leaota still hold fragments of virgin and quasi-virgin forests that practically have been lost in most of Europe and are, therefore, of inestimable national and European value. In the clearings within the forest zone, the following flower species must be mentioned: Carpathian crocus (*Crocus heuffelianus*), snowdrop (*Galanthus nivalis*), anemone (*Anemone nemorosa*), and oxeye daisy (*Chrysanthemum leucanthemum*).

Several other species of campanulas (bells), carnations, gentians, and violets exist in the subalpine zone. Furthermore, yellow monkshood (*Aconitum anthora*), thyme (*Thymus alpestris*), tundra pink (*Dianthus glides*), or least primrose (*Primula minima*) can be found.

Dianthus callizonus is the symbol of the Piatra Craiului National Park, an endemic species only found there. The Fagaras Mountains and Piatra Craiului hold more than 30% of Romania's vascular plants.

Fauna

Romania is home to over 60 percent of surviving European brown bears, around 2,500 wolves, and over half of the continent's pristine forests. The Romanian Carpathians have recently started to be seen as a frontier for rewilding and for significant investments in ecotourism.

Approved management plans of the Natura 2000 sites and recent observations provide information about species' abundance and conservation status in the project zone. Brown bear (*Ursus arctos*), wolf (*Canis lupus*), and lynx (*Lynx lynx*) as the apex predators occur still in relatively good densities preying on the ungulate community with wild boar (Sus scrofa), red deer (*Cervus elaphus*), roe deer (*Capreolus capreolus*), and chamois (*Rupicapra rupicapra*). Wildcat (*Felis silvestris*), fox (*Vulpes vulpes*), pine marten (*Martes martes*), and other members of the marten family benefit from a healthy small mammal population, including *Arvicola terrestris*, *Neomys fodiens*, *Sorex alpinus*, and *Muscardinus avellanarius*. The European otter (*Lutra lutra*) exists in unknown numbers along the main mountain rivers.

VVB, based on the evidence provided^{/16/} and on-site inspection^{/(1-139/}, confirms that the description of existing biodiversity conditions, is in accordance section B1.1 of the CCB standard v3.1^{/B01/}.

3.5.2 High Conservation Values (B1.2)

Based on the CCB & VCS PD/1/,

High Conservation Value	Large Carnivores Eastern part of Fagaras Mountains, Piatra Craiului, Iezer Papusa and Leaota Mountains Brown bear (<i>Ursus arctos</i>) Wolf (<i>Canis lupus</i>) Eurasian lynx (<i>Lynx lynx</i>)
Qualifying Attribute	One of the few places in Europe where large carnivore community is intact and in good numbers. Large carnivores co-occur here with their ungulate prey (wild boar, red deer and roe deer), both in viable populations.

		At the start of the project the baseline population parameters are: Density of brown bears 18.6 bears / 100 sqkm (95%CI=18.3-21.9), regional population size 312 bears (95%CI=303-398) ²
		Density of adult lynx 1.6 and 1.7 adult lynx / 100 sqkm in winter and autumn respectively (95%CI=1-2.5 and 1-2.6), regional population size 44 adult lynx in winter and 48 in autumn (95%CI=32-67 and 36-69) ³
		Density of wolf 2.35 wolves / 100 sqkm (BCI=1.68-3.03), number of wolf packs 6, pack size varies between 3 and 7 individuals ⁴ .
	Focal Area	Southeastern Fagaras, Piatra Craiului, Iezer-Papusa and Leaota - approx. 100 000 ha

High Conservation Value	Fagaras Mountains, Piatra Craiului, lezer Papusa and Leaota Mountains Threatened species Reintroduced in the area European bison (<i>Bison bonasus</i>) European beaver <i>(Castor fiber)</i>
Qualifying Attribute	Both bison and beaver went extinct from Romania two centuries ago due to habitat loss and overhunting. We are reintroducing the two species in the area starting with 2020 and it continues up today with more groups being released to strengthen the already established ones. Released groups have already established winter and summer home ranges, both species giving birth to new animals in the wild.
Focal Area	Dambovita River (Richitaand Draxin areas) Dambovita tributaries river, Valea Chiliei and Valea lui Coman Raul Targului River

High Conservation Value	HCV 1: Species Diversity (Flora & Fauna) ROSCI0381 Râul Târgului-Argeșel-Râușor - 13,175.90 ha
Qualifying Attribute	The river network is very rich, flowing from north to south: Târgului River with its tributary Râușor, Argeșelul, and Râușorul; and Dâmbovița with some small tributaries.
	The area shelters a high number of elements protected according to EU legislation: 2 invertebrates (<i>Rosalia alpina, Carabus variolosus</i>) and 6 vertebrate species (<i>Canis lupus, Ursus arctos, Lynx lynx, Bombina variegata, Triturus montandoni, Cottus gobio</i>) included in Annex 2 of the EU

² 5. Report on monitoring brown bears using non-invasive DNA sampling in the Romanian Carpathians_October 20th 2021_RO.pdf

³ 6. Report on monitoring Eurasian lynx using camera trapping in the Romanian Carpathians_October 13th 2020_EN.pdf

⁴ 9. Report on Wolf genetic diversity compared across Europe using the yardstick method_2023_EN.pdf

The Climate, Community	WWGIII WS v& Biodiversity Standards CCB Version 3, VCS Version 3
	Habitats Directive and 10 habitat types included in Annex 1 of the EU Habitats Directive.
	The higher plant inventory of the lezer-Păpuşa Mountains currently contains 1005 taxa (species and subspecies) (Alexiu 1998). This number represents 28% of the higher plant species in Romania.
	Iezer-Păpușa Mountain is an important site for plant species at the national level. According to the "Red List of vascular plants of Romania," the area shelters many vital species in conservation. There are 23 Carpathian endemic species.
	Among the rare species are yew (<i>Taxus baccata</i>), Arolla pine (<i>Pinus cembra</i>), angelica (<i>Angelica archangelica</i>), black and red vanilla orchids (<i>Nigritella nigra and N. rubra</i>), and others.
	The most representative Carpathian endemic species are Achillea schurii, Aquilegia transsilvanica, Campanuola carpatica, Hepatica transsilvanica, Leucanthemum waldsteini, Sesleria haynaldiana, Trisetum macrotrichum, Koeleria transsilvanica, Draba compacta, Hesperis nivea, Ranunculus carpaticus and others.
	Plant species of Community interest included in the EU Habitats Directive are also present in meadows, such as serrate bellflowers (<i>Campanula serrata</i>).
Focal Area	Râul Târgului-Argeșel-Râușor - 13,175.90 ha

3.5.3 Without-project Scenario: Biodiversity (B1.3)

CCR Standarde

In compliance with the CCB & VCS PD^{/01/}, without the proposed project's implementation, the habitat would continue to be subject to deforestation, overexploitation of timber and non-timber products, overgrazing, and poaching. These will bring severe consequences for countless plants and animal species, such as exposure to enormous stress or losing their habitat. That, in turn, would significantly decrease the population sizes and enlarge the impacts of fragmentation.

For instance, illegal deforestation and overexploitation activities in highly diverse forest habitats destroy the shelter of various wild orchid species such as the Bird's-nest Orchid (*Neottia nidus-avis*), the Narrow-leaved Helleborine (*Cephalanthera longifolia*), the Common Spotted Orchid (*Dactylorhiza*) and many others. It also strongly affects the species that depend on the existence of virgin and quasi-virgin forests, such as the bark-gnawing beetle species *Peltis grossa* and *Thymalus limbatus*, as well as the Rosalia Longicorn (*Rosalia alpina*), the Long-horned Beetle (*Morimus funereus*) (listed as vulnerable in the IUCN Red List) and the Stag Beetle (*Lucanus cervus*).

Overgrazing, on the other hand, mainly affects grassland habitats and freshwater habitats due to acidification. For example, the Dipper (*Cinclus cinclus*) and the Grey Wagtail (*Motacilla cinerea*) are observably decreasing in numbers along with lower pH values in the rivers. In the grassland habitats, the most affected species are the endemic Carpathian Bellflowers (*Campanula carpatica*), the Transylvanian Dark Bush-cricket (*Pholidoptera transsylvanica*), the Jersey Tiger Moth (*Callimorpha quadripunctaria*) and the Large Copper (*Lycaena dispar*).

Another threat to the biodiversity^{/16/} of the project zone is poaching. It not only puts enormous stress on various individuals but can also significantly reduce the population sizes (e.g., the low population size of chamois in the Fagaras Mountains is most likely due to poaching).

VVB by assessment of section 3.5.1, doing onsite visit and interviews^{//01-I39/} with PP and other stake holders confirms that the without project scenario would clearly have no effect on biodiversity^{/16/} of the area.

3.5.4 Expected Biodiversity Changes (B2.1)

VVB has checked and verified the expected biodiversity changes of the project, as listed in the CCB & VCS PD, through desk^{/06//10//16/} review and on-site inspection interviews^{/11-139/} :

Biodiversity Element	Flora
Estimated Change	Positive
Justification of Change	The proposed project converts logged forests to protected forests. This will lead to a change from commercial monocultural spruce stands to more natural forests with native species. The avoided logging will also support stress- and light-sensitive species and herbs, mosses, and ferns that are often destroyed during the logging process. In addition, the protection of the forest is being ensured by establishing a forest watch. Additionally, the proposed project eliminates invasive alien species and restores alpine pastures, clear-cuts, and logging tracks. This will create more habitat and hence positively impact the native flora. Through continuous engagement with local communities, the project also ensures the value of healthy forests is increasingly recognized among the stakeholders and that they contribute to the conservation of the forests; checked and confirmed from the review of forest management plan ^{/06/} , FCC master plan ^{/10/} and well as biodiversity reports ^{/16/} .

Estimated ChangePositiveJustification of ChangeBy converting logged forests to protected forests, the less pressure and more natural and safe habitats for	
animal species. Deadwood will remain in the woods animal species. Deadwood will remain in the woods animultiple habitats for different species. Additionally, the proposed project leases hunting concerban sport and trophy hunting, reintroduce native species the bison and the beaver, and ensures a healthy huma coexistence through implementing prevention, intervent compensation schemes. Restored landscapes will restore wildlife and habitat living space for all autochthonous species, and functioning ecosystems. Especially the fact that FCC is large-scale restoration and an altitudinal range of 800 - will also allow the adaptation to climate change proble environmental benefits in detail are:	r various d provide ssions to s such as in-wildlife tion, and s, create re-install aiming at - 2500 m

Restoration of the original forest habitats with a positive impact
on rare species.
 Protection of old-growth forests and re-wilding of managed
forests.
• Re-introduction of European bison will enrich the ecosystem and
stimulate natural processes.
• Re-introduction of beavers helps to create healthy river systems
as they constantly change the course of smaller streams and
create a variety of micro-habitats for amphibians and riparian
ecosystems.
 Enabling natural seasonal migrations of wildlife.
• Enabling altitudinal movements as a mitigation towards climate
change
• Enabling altitudinal movements as a mitigation towards climate
change; checked and confirmed from the review of forest
management plan ^{/06/} , FCC master plan ^{/10/} and well as biodiversity
reports ^{/16/.}

Biodiversity Element	Forest habitats
Estimated Change	Positive
Justification of Change	Due to the conservation and restoration efforts of the project, there will be more natural forests with less disruptive factors and more canopy cover in general, creating vital, healthy forest habitats for various animal species; checked and confirmed from the review of forest management plan ^{/06/} , FCC master plan ^{/10/} and well as biodiversity reports ^{/16/} .

Biodiversity Element	Aquatic and riparian habitats
Estimated Change	Positive
Justification of Change	The project plans to eliminate invasive alien species along the river valleys to create natural riparian habitats. The aquatic habitats will also experience a positive impact through the proposed project as the overgrazing and abusive logging practices that led to freshwater acidification will be banned and reduced to sustainable grazing practices; checked and confirmed from the review of forest management plan ^{/06/} , FCC master plan ^{/10/} and well as biodiversity reports ^{/16/} .

Biodiversity Element	Habitat connectivity
Estimated Change	Positive
Justification of Change	Restoring alpine grasslands, clear-cuts, and logging tracks that are part of the project activities will positively impact habitat connectivity; checked and confirmed from the review of forest management plan ^{/06/} , FCC master plan ^{/10/} and well as biodiversity reports ^{/16/} .

3.5.5 Mitigation Measures (B2.3)

Based on the review CCB & VCS PD^{/01/}, the surveillance program, Forest Watch, covers 28,800 hectares, split into 15 districts that are watched and patrolled by 15 skilled and dedicated rangers. The district's size is relative to the level of projected theft risk. Hence, districts are smaller when there is higher theft risk so that it can be watched more robustly. According to the annual report 2021, there was a decrease from a maximum of 250-300 m3 (2017-2018) to 88 m3 in 2020 and 60 m3 in 2021. PP is also implementing a remote sensing (satellite images) program to monitor forest disturbances in the project area.

Regarding illegal hunting activities, as a mitigation measure, five management concessions (Jepi, Râul Târgului, Stoenești, Izvoarele Dâmboviței, and Rucăr) are under leasehold of the Carpathia project, covering an area of over 78,000 hectares. PP's management concessions focus on prevention, intervention, and, if needed, compensation for wildlife-human conflicts.

3.5.6 Net Positive Biodiversity Impacts (B2.2, GL1.4)

As per CCB & VCS PD^{/01/}, the project's anticipated net impacts on biodiversity^{/16/} will be positive compared with the without-project scenario due to the following reasons:

- Until 2020 FCC owned 26 509 ha of forest under protection and saved from logging. In 2021, FCC purchased an additional 1,377 ha of forests (647 ha of clear-cuts) and alpine grasslands (444 ha) for conservation in perpetuity. These areas will be the target for restoration efforts over the following years. The purchase of these lands ensures the stopping of deforestation and illegal clearcuttings in the project area, protecting virgin and natural forests, and restoring ecosystem processes for forest and alpine habitats.
- Carpathia Forest Watch is a surveillance program to protect the surface of forests in the Făgăraş, Piatra Craiului, and Leaota Mountains. The CARPATHIA Forest District Association (a private Forest Service) is in charge of the program and reached almost 28,000 hectares – a considerable area split into 15 districts, requiring skilled and dedicated rangers.
- The new forest management plans were enforced in the field, designed, and adapted in 2019 according to the conservation needs in the core area of the Wildland properties. All the works included in the forest management plans are now oriented towards improving the conservation status of the habitats and stopping forest logging except in designated buffer zones.
- Carpathia's ecological restoration program aims to return natural habitats, forests, and alpine meadows affected by human activities to favorable conservation status. Without active support, these may return slowly or not to their natural state. Ecological restoration facilitates or mimics natural processes wherever possible and considers likely future climate change scenarios.
- Since the end of 2011, FCC has been leasing wildlife management concessions in the core of the project area to protect and manage wildlife populations, including Europe's most charismatic species such as bears, wolves, and lynx. Approximately 78,000 ha of

land are custodial, where a model of human-wildlife coexistence was created based on the following:

- ✓ Prevention measures (free provision of Carpathian Shepherd dogs and electrical fences).
- ✓ Rapid intervention teams to solve direct conflicts.
- ✓ Innovative compensatory measures and promoting wildlife management focused on prevention.

VVB based on the review of CCB & VCS PD^{/01/}, and on-site inspection/interviews^{/101-I39/}, the justification for net positive biodiversity impacts is justified, and hence, in compliance with the requirements set out in the CCB Standard version 3.1.

3.5.7 High Conservation Values Protected (B2.4)

Based on the review of CCB & VCS PD^{/01/} and review of biodiversity reports^{/16/}, VVB confirms that the course of action of the project involves the acquisition/purchase of land to restore/rehabilitate natural forests and conservation and thus foster ecological integrity are critical steps implemented towards the maintenance of the several HCV areas identified. Furthermore, the ongoing monitoring plan^{/16-19/} will recognize the key species and habitats to protect and track the restoration activities. The Fagaras Mountains still contain virgin and quasi-virgin forests, now practically destroyed in most parts of Europe, habitats that shelter an incredible terrestrial biological diversity, constituting an invaluable national asset. VVB deems the justification of the new HCV will be created through the project implementation as valid.

3.5.8 Species Used (B2.5)

The project includes replanting at least 500 ha of clear-cuts and converting 500 ha of spruce monocultures into mixed forests using native and local species^{/01//06/} and aims re-create 200 ha of Luzulo-Fagetum habitat or Dacian beech forests habitat and 300 ha of Acidophilous Picea forests habitat with Sorbus aucuparia and Pinus cembra in the subalpine zone.

3.5.9 Impacts of Non-native Species (B2.6)

Based on the CCB & VCS PD^{/01/}, no known invasive species will be introduced in any area of the project implemented by the PP; checked and verified from review of forest management plan^{/06/} and purchase contract^{/09/}, hence, VVB confirms that there is no risk of adverse effects from non-native species.

3.5.10 GMO Exclusion (B2.7)

In compliance with the CCB & VCS PD^{/01/} no GMOs were used in the project to generate GHG emissions reductions or removals; checked and verified from review of forest management plan^{/06/} and annual reports^{/07/}.

3.5.11 Inputs Justification (B2.8)

The project uses biological control agents instead of fertilizers or chemical pesticides; checked and verified from review of FCC Statutes^{/26/} as well as forest management plan^{/06/}.

3.5.12 Waste Products (B2.9)

As per CCB & VCS PD^{/01/}, The waste generated by the project activities is minimized, following these measures:

- During forest plantation and restoration activities, the waste/garbage produced by the planters is kept in garbage bags or bins. The workers know that all waste and garbage must be collected and returned to the headquarters in Rucar. FCC has a contract with a waste management company that collects all the garbage and waste produced.
- The garbage and waste produced in the tree nurseries are also stored and delivered to the waste management company.
- Industrial waste, like tractor oil, is collected and stored separately.
- The lubricant oil used for the chainsaws is 100% vegetable-based and thus biodegradable.

VVB verified the above measures, through on-site inspection and interviews^{/101-139/} and confirms that there are no waste and waste products laid on the project area. In addition, the amount of human waste will be quite small and can be degraded naturally.

3.5.13 Negative Offsite Biodiversity Impacts (B3.1) and Mitigation Measures (B3.2)

The CCB & VCS PD^{/01/} states that no potential negative impacts on biodiversity outside of the project zone would result from project activities; the project contributes to the conservation of the biodiversity^{/16/} and ecosystem.

Negative Offsite Impact	Mitigation Measure(s)
Increased grazing pressure by cattle displaced from reforested or afforested grasslands	Grazing in forests is not allowed by forest law, and if happening in deforested and replanted areas, it is not legal and could be fined. To reduce the temptation to enter reforested areas with sheep, Foundation Conservation Carpathia installs fences for the first few years until the saplings are high enough. In addition, FCC still rents alpine pastures to local livestock owners to ensure that grazing pressure doesn't increase in other areas. Afforested grasslands are usually in areas of no interest to local livestock owners.
Potential land-conflict	Raising awareness in the local communities about a nature-based economy. Involvement and increase local communities' capacity in nature protection and sustainable development by implementing green business plans. Creation of an economic incentives system for landowners to protect forests of their own will and have developed

	plans for a private compensation program in return for fully protecting their forests.
Human-wildlife conflicts	With wildlife increasing in game management units following a non-hunting policy, conflict situations can increase and, if not addressed properly and efficiently, might lead to a strong demand for lethal solutions from the local population. The measures used in this project to prevent human-large carnivore conflicts are best practices and have been implemented in several other European projects, including Romania. FCC is in good contact with experts from such projects and can always discuss particular cases and get support.
Invasive species	The spread of invasive alien species, especially plant species, can harm the integrity of specific habitats. FCC biologists carefully monitor invasive species' appearance and distribution, and measures are restricted to uprooting regularly. FCC also informs people in the affected communities about certain invasive species that can become a problem and provides assistance to combat them.
Bark-beetle attacks	Although FCC sees bark beetles in principle as not unfavorable as a natural factor, nevertheless, an outbreak of bark beetle could be harmful to neighbor properties and forests. Wind-blown areas are carefully monitored for bark beetle and trees are barked on the spot if needed.

VVB, based on the review of evidence^{/06//16/} and through on-site inspection and interviews^{/101-139/}, confirms that no negative impacts are created outside project zone through project activities.

3.5.14 Net Offsite Biodiversity Benefits (B3.3)

Based on the CCB & VCS PD^{/01/}, considering that the management strategies described for the project area are focused on conserving and restoring natural forests and restoring habitats, the assessment of biodiversity^{/16/} and net offsite impacts will be positive compared to the without-project scenario.

Outside the project zone, activities such as unsustainable forest management, deforestation, and illegal hunting will continue to degrade forest areas and the unique biodiversity of the Fagaras Mountains. On the other hand, by providing protection/conservation to natural forests, restoring forest cover and degraded lands, and reintroducing keystone species, the wildlife in the area will be positively impacted due to improved movement and connectivity across different landscapes and the provision of food, shelter, and refuge to several species. VVB justifies after reviewing the VCS PD^{/01/} and through on-site inspection and interviews^{/I01-I39/} that there are no significant offsite biodiversity^{/16/} impacts from the project activities.

3.5.15 Biodiversity Monitoring Plan (B4.1, B4.2, GL1.4, GL3.4)

In line with the CCB & VCS PD^{/01/} and supporting document^{/12/}, The project developed by Foundation Conservation Carpathia is based on the management strategy of conservation where almost 28,000 ha of forest and grassland are protected, and monitoring biodiversity^{/16/} is an

integral part of the work within FCC. Furthermore, the project pursues restoring degraded habitats for important wildlife species and their management and conservation.

A monitoring plan has been designed to determine whether the management strategies are being implemented and management objectives are being met. Therefore, the science-based impact monitoring plan of FCC focuses on the comparison of restoration sites with "natural" or less intervened reference sites (e.g., virgin/natural forests and intact riparian or grassland habitats; therefore, the monitoring plots were located in a systematic way in the restoration sites to track:

- ✓ Changes in cover and species diversity of the characteristic understory vegetation of forests.
- ✓ Changes in the abundance of specialist bird species in forests and grasslands.
- ✓ Changes in diversity and abundance of terrestrial arthropods of forests and grasslands.

Objective	Indicator	Data collection method	Who	Frequency	Where/are a	Observations
To restore ecosystem processes (acceleratin g re-wilding processes Reintroduci ng Bisons &	Changes in abundance (population size and density) of wolves, bears and lynxes # of male/ # of female population	Wolves and Brown Bears: non- invasive DNA samples; Lynx: camera trap images	FCC; lab work done in collaborat ion with a Slovenia n Lab	Every five years; Bears: Aug-Nov; Wolves: Dec- Apr; Lynx: Sep-Feb	FCC hunting areas plus other collaborati ng GMUs (1,200 km ²)	This area includes a compact forest habitat and agricultural landscape mosaic. Lynx density hotspots shifted between the agricultural mosaic at lower altitudes correlated with less steep slopes during the winter
Beavers) for forest and grassland habitats and wildlife in the wider Fagaras Mountains	Changes in population sizes of reintroduced species (Bison & Beaver) # individuals	Bison: direct observation and GPS/VHS collars; Beaver: visual inspection of tracks in habitats; camera traps	FCC Group	Every five year; Bison: throughout the year; Beaver: April/May/Ju ne	Autumn - Winter Bison: all reintroduct ion sites; Beaver: all rivers where species was reintroduc ed	session
	Diversity and distribution	Camera traps	FCC	Every five years; Sep- Oct deployed	Entire project area	



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of mammals (red deer)	Direct observation VHS transmiters		during summer/autu mn		
Area of hunting-free zones (# of hectares)	GIS Satellite images	FCC	Every five years	Entire project area	Maintaining or increasing the amount of wildlife management units

VVB confirms that the section is in accordance with the CCB Standards (Version 3.1)/B01/.

3.5.16 Biodiversity Monitoring Plan Dissemination (B4.3)

As per CCB & VCS PD^{/01/} and on-site inspection interviews^{/11-I39/}, the monitoring plan, and any results of monitoring undertaken in accordance with the monitoring plan, will be disseminated and made publicly available on VCS and CCB websites and on the Foundation Conservation Carpathia webpage.

Furthermore, hard copies of the project description and monitoring plan will be available at the FCC's headquarters and Annual Reports will be used to publicize information regarding the progress of the monitoring plan. Technical staff from FCC will also explain the project and monitoring plan to the local communities surrounding the project zone. Additionally, the project proponents will prepare summaries of the monitoring plan and project description using simple and local language (Romanian). VVB confirms, from the above assessment, that the dissemination of monitoring plan is in line with the CCB & VCS requirements.

3.5.17 Optional Gold Level: High Biodiversity Conservation Priority Status (GL3.1)

The project aims for the reintroduction of the Bison (*Bison bonasus*), a Near Threatened species, which remains dependent on ongoing conservation measures, when reintroduced, after 200 years of absence in the central forest of Romania^{/16/}.

3.5.18 Optional Gold Level: Trigger Species Population Trends (GL3.2, GL3.3)

Trigger Species	European Bison (<i>Bison bonasus</i>)
Population Trend at Start of Project	According to the FCC's Annual Reports (2020 & 2021), the Bison was reintroduced in late 2019 and early 2020. The specimens were brought from different origins (Great Britain, Sweden, and other places in Romania). During the first months, the bison were constantly monitored in a special quarantine enclosure, where relevant analyses and treatments were carried out following the requirements of the legislation in force. Then they were released into a larger acclimatization enclosure, where they could adapt

As per CCB & VCS PD/01/

	more quickly to the environment (such as temperature, relief, vegetation, predators, etc.). The first release into the wild was in May 2020, when the project reintroduced the first eight bison into the area.
Without-project Scenario	The bison is a keystone species, a sort of an ecosystem engineer, as it helps to boost diversity by creating habitat and ecological niches for other species whether flora or fauna. Without a larger conservation project such as the FCC initiative, no efforts to reintroduce and conserve bison populations in the Fagaras Mountains would have been undertaken, as the species remains dependent on some ongoing conservation measures, such as the relocation of bison to optimal habitats to create viable populations and the promotion of human-bison coexistence.
With-project Scenario	In the words of the FCC team, "obviously, it will still take a lot more work to re-populate the Făgăraş Mountains with bison". A second enclosure was built in the Lerești commune, and the first few individuals have already been released there. A third enclosure in the Nucșoara commune is still under construction. From 2021 onwards, more bison will be released annually at all three sites. Hopefully, this will soon lead to the presence of a healthy population of this species over all the eastern Făgăraş Mountains. The bison brought several new jobs to local communities, as they become an alternative source of tourist attraction, and tourism information centers will be built with the local town halls in the next two years. It is worth noting that the Bison safety and freedom to graze are not impacted or inhibited by the ecotourism activities. On the contrary, as mentioned before, the project is seeking to increase bison population by its reintroduction. Individual bison in each herd are fitted with GPS and VHF collars and since the first release in May 2020, the FCC team monitors the herds, using satellite locations and direct observations to obtain as much information as possible.



4 VALIDATION CONCLUSION

CCIPL has performed the validation of the grouped project and 1st PAI "Carpathia Forest Carbon Project" commissioned by the project proponent Fundatia Conservation Carpathia (FCC). The validation process was performed based on all guidance and criteria as provided by VCS & CCB including the following/^{B01/}: VCS Standard version 4.4, CCB Standard 3.1, CCB Program Definitions (v3.0 dated 21/06/2017), VCS Program Guide version 4.0, AFOLU Non- Permanence Risk Tool version 4.0 and the applied VCS methodology VM0012: Improved Forest Management in temperate and Boreal Forests (LtPF) v1.2^{/B02/}

VVB, at conclusion, confirms the reasonableness of the assumptions, limitations and methods, used to forecast information, and based on the evaluation (as detailed in this report), confirms that sufficient and appropriate information has been provided in the CCB & VCS PD^{/01/} for future estimate, any limitation and methods, used for the forecast.

The project activity provides the information in CCB & VCS PD as required by the CCB & VCS Standard^{/B01/} and Validation and Verification Manual and in Carbon Check's opinion meets the requirements of the applied baseline and monitoring methodologies and is likely to achieve the estimated emission reductions. The validation has been performed using a risk- based approach, as described above. The net estimated emission reductions in the project area 2,130,949 tCO₂e for a crediting period of 09th August, 2017, and ends on 08th August 2057; 40 years which is equivalent to 53,273 t CO₂e/year.



APPENDIX 1: LIST OF DOCUMENTS

S no	Documents	References
/01/	CCB & VCS PD	Version 1.1, dated 20-06-
	CCB_VCS_PD_Carpathia_V1.0_20.06.2023	2023
/02/	Non-Permanence Risk	Version 4.0, dated 20-06-
	Carpathia_VCS-Risk-Report-Calculation-Tool-v4.0	2023
1001	Carpathia_VCS-Non-Permanence-Risk-Report-Template-v4.0	
/03/	GHG Removals Ex ante_VCU_Calculations_Carpathia Forest Carbon Project	
/04/	Maps and shapefiles	
	Folder_26.06.2023_Eligible_areas	
	 Folder_29.06.2023_PDD_cartography 	
	-	
	Folder_ Project_Area	
	Folder_ Project_Zone	
	 Folder_ EligibilityAnalysis_Carpathia_map_V2 	
/05/	GHG Consideration	
	Folder_ CBM data	
	Folder_ FMP data	
	Folder_ Harvest scheduling data	
	Folder_ HWP post-processing	
	 Folder_ Sources 	
	Carpathia_Technical report for carbon calculations	
	Comparison_Baseline and national harvest levels	
	Folder_ Supporting data	
	Folder_ Supporting literature	
	ReadMe	
	 Technical documentation_Ex-post calculations 	
	Tree and plot level calculations	
/06/	Forest Management Plans	
	✓ Folder_U.P. 8 Valea Cheii	
	✓ Folder_U.P.3 Leresti	
	✓ Folder_U.P.4 Rausor	
	✓ Folder_U.P.5 Voina	
	✓ Folder_U.P.7 Badeanca	
	✓ Folder_U.P.8 Cetateni	
	✓ Folder_U.P.II Cumpana	
	✓ Folder_U.P.IV Buda Oticu	
	✓ Folder_U.P.V Valea cu Pesti	
	 ✓ Folder_U.P.VI Zarna 	
	✓ Folder_0.F.Vi Zama ✓ Folder UB I Tuha	
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	✓ Folder_UP / Cucioaia	
	✓ Folder_UP I Raciu -PG	
	✓ Folder_UP I Romanescu	
	✓ Folder_UP I Visoianu	



	✓ Folder_UP II Negrita	
	✓ Folder_UP III Raciu	
	✓ Folder_UP IV Bratei	
	✓ Folder_UP Negrita Tuha	
	✓ Folder_UP V Obarsia Ialomitei	
	✓ Folder_UP VII Pripor Tataru	
	✓ Folder_UP XI Leresti	
	✓ Folder_UP XVI Leresti	
	✓ Folder_UP I Vidraru en-GB	
	✓ Folder_ UP II Dambovita en-GB	
	✓ Folder_ UP II Dambovita Wildland en-GB	
	✓ Folder_ UP II Pitesti	
	✓ Folder_ UP III Campulung(Rausor) en-GB	
	✓ U.B. Padurea particulura BAJAN en-GB	
	✓ UP I Cumpana redactare 2021 en-GB	
	✓ UP I Negrita Tuha redactare en-GB	
	✓ UP I Nucsoara 2021 en-GB	
	✓ UP I Piatra Craiului en-GB	
	✓ UP I Rucar redactare 2021 en-GB	
	 ✓ UP I Valea Lunga redactare en-GB 	
	✓ UP I Valea Urdii redactare en-GB	
	 ✓ UP II Arges Campulung en-GB 	
	✓ UP II Arges Rucar en-GB	
	✓ UP II PADUREA PARTICULARA BAJAN en-GB	
	 ✓ UP VII Grigorescu en-GB ✓ UP VII Zarnulita en-GB 	
	V OP VII Zamulita en-GB	
/07/	FCC Annual Reports	
	✓ FCC Annual Report_2017	
	✓ FCC Annual Report_2018	
	✓ FCC Annual Report_2019	
	✓ FCC_Annual Report_2020	
	✓ FCC_Raport-anual_EN_2021	
	✓ CARPATHIA_Annual_report_2022	
	✓ Foundation Conservation Carpathia Headlines and	
	Highlights_English	
1001	Manifaring Diag	
/08/	<u>Monitoring Plan</u> Carpathia_8 Monitoring Plan Final	
	Folder_ Carpathia_Monitoring_Shapefiles	
	Notes for monitoring plot shape files	
/09/	Ownership	
	Folder_ Eligible AN	
	Folder_ Eligible SN	
	Folder_ Eligible WL_RF	
	• Eligible_FCC	
14.2.1	-	
/10/	Master Plan	
	FCC_Masterplan_excerpts	



CCB & VCS VALIDATION REPORT:

/11/	Stakeh	older Meeting	
/12/	CCB Sp	pecific documents	
	✓	Summary_CCB_VCS_PD_Carpathia_V1.0_18.08.23	
	✓	Folder_Project_Zone	
	✓	Purchase contracts	
	✓	FCC_Raport-anual_EN_2021	
	✓	FCC_Masterplan_excerpts	
	✓	FCC_Annual Report_2020	
/13/	Literatu	ure Review	
	1.	www.rowater.ro	
	2.	Form B2a - General description of the area/site targeted by the project	
	З.	Geographically, the Fagaras Mountains extend beyond the	
		current Natura 2000 site boundary	
	4.	Roland Berger, 2022. Studiu privind impactul socio-	
		economic al înființării PARCULUI NAȚIONAL FĂGĂRAȘ.	
	F	Bucharest	
		Ibid Sacia Economia, Study, Baselina, Banart, (Engel, & Bath	
	0.	Socio-Economic Study Baseline Report (Engel & Bath 2021)	
	7.	20220711_Carpathia_Impact_study_short_version_Englis h_pre_FINAL.pdf	
	8	Form B1 - Summary description of the project	
		Euronatur (2020). Effects of illegal logging on species and	
	0.	habitats in natural forests in the Romanian Natura 2000	
		sites Făgăraș, Maramures and Domogled	
	10.	Socio-economic impact study on the creation of FAGARAS	
	11.	Socio-economic impact study on the creation of FAGARAS NATIONAL PARK-Summary	
	12	https://www.drepturicivile.ro/drepturile-omului/drepturile-	
	12.	omului-in-instantele-nationale/consiliul-national-pentru-	
		combaterea-discriminarii/	
	13.	https://climate.ec.europa.eu/eu-action/eu-emissions-	
	101	trading-system-eu-ets_en.	
	14.	https://www.emissionshandelsregister.at/en/emissionstradi	
		ng/principlesemissionstrading	
	15.	Global Ecological Zones (Food and Agriculture	
		Organization of the United Nations, 2001)	
	16.	Tudoran & Zotta (2020). Adapting the planning and	
		management of Norway spruce forests in mountain areas	
		of Romania to environmental conditions including climate	
		change. Science of the Total Environment Journal.	
L	1	~	



17.	Further details regarding the harvest practices will be	
	added to describe this baseline scenario once the Forest	
	Management Plans are shared by FCC.	
18.	Foundation Conservation Carpathia (FCC). Annual Report	
	2019.	
19.	Dorondel, S. 2016. Disrupted landscapes: state, peasants,	
	and the politics of land in post socialist Romania. New York:	
	Berghahn Books	
20.	Aastrup, M. (2020). Conservation narratives and conflicts	
	over protected areas in post-socialist Romania. Journal of	
	Political Ecology	
21.	Foundation Conservation Carpathia (FCC). (2021).	
	Reconstruction of forest habitats on Dâmbovița Valley in	
	severe erosion areas caused by inappropriate logging.	
22.	Foundation Conservation Carpathia (FCC). Annual Report	
	2017.	
23.	Foundation Conservation Carpathia (FCC). (2021).	
	Reconstruction of forest habitats on Dâmbovița Valley in	
	severe erosion areas caused by inappropriate logging	
24.	Foundation Conservation Carpathia (FCC). (2021).	
	Reconstruction of forest habitats on Dâmbovița Valley in	
	severe erosion areas caused by inappropriate logging.	
25.	Foundation Conservation Carpathia (FCC). Annual Report	
	2018.	
26.	Foundation Conservation Carpathia (FCC). (2017)	
	Biodiversity baseline survey study on Leaota area.	
27.	Scriban et al. (2019). Governance of the forest restitution	
	process in Romania: An application of the DPSIR model.	
	Forest Policy and Economics.	
28.	Aastrup, M. (2020). Conservation narratives and conflicts	
	over protected areas in post-socialist Romania.	
29.	Scriban et al. (2019). Governance of the forest restitution	
	process in Romania: An application of the DPSIR model.	
	Forest Policy and Economics.	
30.	https://ec.europa.eu/environment/nature/legislation/habitat	
21	sdirective/index_en.htm	
31.	Schlingemann et al. (2017). Combating Wildlife and forest	
20	Crime in the Danube-Carpathian region. UN Environment. http://www.carpathianconvention.org/the-convention-	
32.	17.html	
33	Stanturf, J.A., et al. (2014). Forest restoration paradigms.	
	Journal of Sustainable Forest. 33, 161–194.	
.34	Aastrup, M. (2020). Conservation narratives and conflicts	
04.	over protected areas in post-socialist Romania. Journal of	
	Political Ecology	
	· ····································	



· · · · · · · · · · · · · · · · · · ·		
	35. Hereş, A. et al. (2021). Legacies of past forest	
	management determine current responses to severe	
	drought events of conifer species in the Romanian	
	Carpathians. Science of the Total Environment.	
	36. Tudoran, G. (2020). Adapting the planning and	
	management of Norway spruce forests in mountain areas	
	of Romania to environmental conditions including climate	
	change. Science of the Total Environment	
	37. Aastrup, M. (2020). Conservation narratives and conflicts	
	over protected areas in post-socialist Romania. Journal of	
	Political Ecology	
	38. Aastrup, M. (2020). Conservation narratives and conflicts	
	over protected areas in post-socialist Romania. Journal of	
	Political Ecology	
	39. Tudoran, G. (2020). Adapting the planning and	
	management of Norway spruce forests in mountain areas	
	of Romania to environmental conditions including climate	
	change. Science of the Total Environment	
	40. https://eur-lex.europa.eu/legal-	
	content/EN/TXT/?uri=CELEX:01992L0043-20130701	
	41. https://eur-lex.europa.eu/legal-	
	content/EN/TXT/?uri=CELEX:32009L0147	
	42. https://www.iucnredlist.org/	
	43. RED LIST OF HIGHER PLANTS OF ROMANIA (Oltean M.,	
	Negrean G., Popescu A., Roman N., Dihoru G., Sanda V.,	
	Mihăilescu S., 1994: Lista roșie a plantelor superioare din	
	România, Stud., Sint., Doc., Ecol., Acad. Rom., Bucureşti:	
	1-52	
	44. RED BOOK OF VERTEBRATES OF ROMANIA (Botnariuc	
	N., Tatole, Victoria (ed.). 2005. Cartea Roșie a vertebratelor	
	din România. Muzeul Național de Istorie Naturală "Gr.	
	Antipa", Bucureşti.	
	45. RED LIST OF BRYOPHYTES OF ROMANIA (Ștefănuț, S.	
	& I. Goia 2012: Checklist and Red List of Bryophytes of	
	Romania. – Nova Hedwigia 95: 59–104.	
	46. Biodiversity_Carpathia_SpeciesList	
	47. Form B2a - General description of the area/site targeted by	
	the project	
	48. https://data.jrc.ec.europa.eu/dataset/jrc-cbm-eu-aidb	
/14/	Proof of start date of the project:	09 th August 2017
	 Decision FCC_Total protection_2017_RO 1a. Decision FCC_Total protection_2017_EN 	
/15/	Exemption letter from VERRA for Project 3280: Response to	28 th July 2023
, 10,	exemption submitted on 29 June 2023.	
/16/	Biodiversity reports:	
	1. IAS management_Pictures & Clips	
1 1		



	Ι
	IAS removal FPP employee IAS removal with Piatra Craiului NP administration IAS removal with students IAS training – rangers
-	sel-Raul Targului Plan management Studii for Amfibieni, Habitate, Mamifere, Nevertebrate, Paduri, Pesti
3. Beav	ers public meeting_Leresti2022
4. Graz	ing capacity study
5. Leao Plante	ta Biodiversity Study for Habitate, Nevertebrate, Pasari,
6. Leao	ta Conservation Plan
7. Phote	os_Genetic monitoring_Bears
8. Phote camera	os_Monitoring large carnivores using motion sensor s
9. Photo camera	os_Monitoring of ungulates (cervids) using motion sensor s
10. Rap	oid Intervention Team training_2021
11. Rap	poarte impact zimbrii-vegetatie
12. RAF	PORT invazive LIFE
13. RAF	PORT ripariene ELP
	dii artropode LIFE si ELP diu artropode ELP
16. Stu	diu pasari ELP
17. Unc	lerstory vegetation
	dlife Reintroductions Team_Bieszczady National oland_Exchange experience 2022
	ports of monitoring: Report on monitoring wolf using non-invasive DNA sampling in the Romanian Carpathians_July 18th
~	2023_RO Report on monitoring wolf using non-invasive DNA sampling in the Romanian Carpathians_July 18th 2023_EN



	✓ Research article_Dracula's ménagerie - A multispecies
	occupancy analysis of lynx, wildcat, and wolf in the
	Romanian Carpathians_April 25th 2022_EN
	✓ Report on monitoring brown bears using non-invasive DNA
	sampling in the Romanian Carpathians _October 20th
	2021_EN
	✓ Report on monitoring brown bears using non-invasive DNA
	sampling in the Romanian Carpathians_October 20th
	2021_RO
	✓ Report on monitoring Eurasian lynx using camera trapping
	in the Romanian Carpathians_October 13th 2020_EN
	✓ Report on analysis of genetic samples collected in 2017-
	2018 on brown bears, Eurasian lynx and grey wolf_May
	2019_EN
	✓ Report on Eurasian lynx density and habitat use in one of
	Europe's_2022_Published by Oxford University Press_EN
	✓ Report on Wolf genetic diversity compared across Europe
	using the yardstick method_2023_EN
	 ✓ Article 1_2017_The impact forests have on water ✓ Article 2_2010_The impact forests have on water
	 ✓ Article 2_2016_The impact forests have on water ✓ European biogn rejet reduction NC_final report PL
	✓ European bison reintroduction_NG_final report_RI
/17/	Community Outreach:
	1. Attendance Sheets
	✓ LISTA PREZENTA CURSANTI Seminar de instruire
	✓ LISTA PREZENTA CURSANTI Sesiune de instruire Amprenta
	 LISTA PREZENTA CURSANTI Sesiune de instruire Dezvoltare
	durabila - Comun ✓ LISTA PREZENTA Seminar de instruire Brasov, 17.01.2020
	✓ LISTA PREZENTA Seminar de instruire Brasov, 11.01.2020
	 ✓ LISTA PREZENTA Seminar de instruire Brasov, 51.01.2020 ✓ LISTA PREZENTA Sesiune de instruire Agricultura traditionala
	- ecologică
	✓ LISTA PREZENTA Sesiune de instruire Poluarea-masini,
	incălzire, produse
	✓ LISTA PREZENTA Sesiune de instruire Schimbări climatice
	✓ Program de formare profesionala RANGER sesinea 2 28.06-
	02.07.2021
	✓ Program de formare profesionala RANGER sesiunea 1 07.11-
	11.06,2021
	✓ Program de formare profesionala RANGER sesiunea 1 14-
	18.03.2022
	✓ Program de formare profesionala RANGER sesiunea 2 28.04-
	01.04.2022
1	✓ SKMBT_C22018091110090
	 Community help_Contracts for Rapid Intervention_Bears ✓ Addendum 2_Leresti



 Addendum_Contract for permanent intervention services_Rucar City Hall Addendum_Interventions_Bughea de Sus Addendum_Stoenesti Contract Valea mare Pravat Contract_Interventions_Cetateni Contract_Permanent interventions Bughea de Sus_OUG81 Contract_Stoenesti_OUG81 Interventions in Dragoslavele area Children_community support 2020-2022 Coffee table book EVENTS involving the local communities Food for elders Giveaways Poster campaign for local communities
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 ✓ Contract_Interventions_Cetateni ✓ Contract_Permanent interventions Bughea de Sus_OUG81 ✓ Contract_Stoenesti_OUG81 ✓ Interventions in Dragoslavele area 3. Children_community support 2020-2022 4. Coffee table book 5. EVENTS involving the local communities 6. Food for elders 7. Giveaways 8. Poster campaign for local communities
 ✓ Contract_Permanent interventions Bughea de Sus_OUG81 ✓ Contract_Stoenesti_OUG81 ✓ Interventions in Dragoslavele area 3. Children_community support 2020-2022 4. Coffee table book 5. EVENTS involving the local communities 6. Food for elders 7. Giveaways 8. Poster campaign for local communities
 ✓ Contract_Stoenesti_OUG81 ✓ Interventions in Dragoslavele area 3. Children_community support 2020-2022 4. Coffee table book 5. EVENTS involving the local communities 6. Food for elders 7. Giveaways 8. Poster campaign for local communities
 ✓ Interventions in Dragoslavele area 3. Children_community support 2020-2022 4. Coffee table book 5. EVENTS involving the local communities 6. Food for elders 7. Giveaways 8. Poster campaign for local communities
 3. Children_community support 2020-2022 4. Coffee table book 5. EVENTS involving the local communities 6. Food for elders 7. Giveaways 8. Poster campaign for local communities
 4. Coffee table book 5. EVENTS involving the local communities 6. Food for elders 7. Giveaways 8. Poster campaign for local communities
 5. EVENTS involving the local communities 6. Food for elders 7. Giveaways 8. Poster campaign for local communities
6. Food for elders7. Giveaways8. Poster campaign for local communities
7. Giveaways8. Poster campaign for local communities
8. Poster campaign for local communities
9. Printed project newsletter
10. Thematic brochures for local communities 11. Action plan_Communication 2017
12. Communities Outreach Strategy_ 20180503
13. Doc 10 Community Outreach Strategy 20180508
14. Doc 9_Communications plan_CARPATHIA_ELP_v201806016
15. FCC - FNP Strategy_FCC_dec.2019 – Copy
16. Internal communication_ plan_2018 17. Photos_Trainings
18. Published article in JURNALUL VERDE_June 2023
19. Info about Carpathia Forest Carbon Project
Validation contract signed between CCIPL and FCC 16 th August 2023
19/ CV_Carpathia Management
(CV Parbara Prombargar, Evacutiva Director
 ✓ CV Barbara Promberger_Executive Director ✓ CV Christoph Promberger_Executive Director
 ✓ CV Christoph Fromberger_Executive Director ✓ CV Mihai Zotta Conservation Director
 ✓ CV_Serban Elena_Forest Engineer
 ✓ CV_Gerban Liena_r örest Engineen ✓ CV Adrian Aldea Wildlife Management Biologist
 ✓ CV_Adnan Aldea_Wildlife Management Biologist ✓ CV_Annex_Published papers_Oliviu Pop_Biologist
 ✓ CV_Annex_r ubished papers_Onvid r op_biologist ✓ CV_Codrut Voinescu_Chief Ranger
 ✓ CV_losif Ruben_Wildlife Research Biologist
 ✓ CV_Liviu Ungureanu_Beaver Reintroduction Specialist
 ✓ CV_Ţoanţă Claudiu_Ranger
✓ CV_Oliviu Pop_Biologist_Responsible Leaota
Conservation Plan
 ✓ CV_Zsolt Miholcea_Senior Wildlife Ranger
/20/ Educational Trainings:
1. Educational programme_Arges_2020
2. Teachers for nature (2021)
3. Educational programme_Sibiu_2022
4. Educational programmes_Brasov_2021
5. IJJA_RIT training participants_2019 & 2020



	6. FCC_RIT training participants_2019.pdf
	7. FCC_RIT training participants_2020
	8. Agenda of training RIT_2020
	9. Report of public meeting_POIM_2019
	10. Attendance list to the public meeting_POIM_2019
	11. Report of public meeting_POIM_2019
	12. Attendance list to the public meeting_POIM_2019
	13. Attendance list to the press conference_POIM_2019
	14. List of educational actions_POIM_2018-2019
	15. Info trip to Bayerischer Wald NP_202204
	16. List of participants_junior ranger programme_2017
	17. List of participants_press conference_project Forest
	history_2017
	18. Photos_junior ranger programme_2017
	19. Resulta of the seociological survey_Reintroduction of bison
	& beaver_2021
	20. List of participants study tour Hohe Tauern_2022
	21. List of participants Riparian habitats_202010
	22. List of participants_202001
	23. List of participants_201912
	24. FCC_List of meetings and trainings_2017-2022
	25. Minute_Forestry Staff Training_Carbon
	Proiect_22.08.2023_RO
	26. RO_Internal training_Manual verification of the plots
	measurements made by Forest Design_12.07.2023
	27. Communes in CARPATHIA project
/21/	FCC Employees Statistics:
	1. FCC Employees_Legal
	✓ Daily workers registry_Carbon P_2023
	✓ RO_minimum gross basic wage per country guaranteed in
	payment_20230926
	✓ RO_minimum wages for daily workers_20230927
	2. Photos_MULTICULTURAL Training
	3. Attendance MULTICULTURAL Training_18-19.05.2023
	 Carpathia employees_Men&Women percentage CARPATHIA Training overview_2017_2023
	6. Employees_Positions_Skills
/22/	FCC Internal Policies:
	1. FCC Rules of Procedures_ROI
	 ✓ 1. FCC Rules of procedures_20230525_EN
	 ✓ 1. FCC Rules of procedures_20230525_RO
	\checkmark 1.1 Additional act to the Rules of
	Procedures_20230525_EN
	✓ 1.1 Additional act to the Rules of
	Procedures_20230525_RO
	2. Antidiscrimination Statement
	3. FCC - Grievance and redress procedure



CCB & VCS VALIDATION REPORT:

-		
	FCC_Code of Conduct and Safeguarding Policy_2022	
	5. FCC_Conduct Code_RO	
	FCC_Factsheet_Valorile noastre_EN_20210909	
	7. Operational procedure for accessing and dealing with requests	
	from the general public_EN	
	8. Operational procedure for accessing and dealing with requests	
	from the general public_RO	
	9. Procedure for solving complaints_EN	
	10. Procedure for solving complaints_RO	
/23/	Forest Inventory_TLS:	
	1. Forest Design Standard Operating Procedures	
	2. Procedure annual remote and ground-based monitoring	
	analysis	
10.4.1	3. TLS_Standardized Field Protocols_Forest Design	
/24/	1. <u>Carpathia_8 Monitoring Plan Final</u> (for ecological and social	
	aspects)	
/ D E /	2. Manual for spruce monoculture conversion	
/25/	Pictures of the project area	
/26/	PP_legal Registration Documents:	
	1. Company registration certificates	
	✓ FCC_Foundation registrtion_Extras RAF_20230808	
	✓ Company registration_ALMIMAX NATURA_20230227	
	 ✓ Company registration DANTE INTL20230918 ✓ DOMEOR 	
	✓ ROMFOR SUSTAINABLE FORESTRY_Company	
	registration_20230220	
	✓ SANATATE & NATURA_Company registration_20220530	
	✓ WILDLAND_Company registration_20230830	
	2. FCC - Constitutive act_Updated_01.08.2021	
	3. FCC – Constitutivact_Updated_20221017_Draft_RO_EN	
	4. FCC - Constitutive act_Updated_20221017_Signed_RO_EN	
	5. FCC Statutes	
/27/	Stakeholder Engagements: documents pertaining to local	
	stakeholders consultation:	
	 Photos Presentation to mayors in Leresti 	
	✓ Lista participanti Nucsoara_20210909	
	✓ Lista participanti Nucsoara_20210930	
	✓ Lista participanti Nucsoara_20211021	
	✓ Lista participanti SDL_Leresti_20210617	
	 ✓ Participant List Meeting Leresti 20220913 	
	✓ Stakeholder Presentation	
	 FCC – Grievance and redress procedure 	
	\checkmark Operational procedure for accessing and dealing with	
	requests from the general public_EN	
	\checkmark Operational procedure for accessing and dealing with	
	requests from the general public_RO	
	 Procedure for solving complaints_EN 	
	 Procedure for solving complaints_RO 	
	✓ SOP Communication with Local Stakeholders_20230925	



/28/	Land	Whorship and Carbon Bights:
/20/		Dwnership and Carbon Rights:
	v	Decision ALMIMAX NATURA_Total protection_2017_R0 2a. Decision ALMIMAX NATURA Total
	v	2a. Decision ALMIMAX NATURA_Total protection_2017_EN
	~	3. Decision ROMFOR_Total protection_2017_R0
	✓	3a. Decision ROMFOR_Total protection_2017_EN
	✓ ×	4. Decision WILDLAND_Total protection_2017_RO
	✓	4a. Decision WILDLAND_Total protection_2017_EN
	✓	5. Decision SANATATE & NATURA_Total
		protection_2017_RO
	✓	5a. Decision SANATATE & NATURA_Total
		protection_2017_EN
	✓	Addendum 1_Partnership Agreement FCC_DANTE
	✓	Addendum 1_Partnership Agreement_FCC_ALMIMAX
		NATURA
	✓	Decision of the General Assmbly of
		Shareholders_DANTE_Nr. 31_07.06.2023
	✓	Decision of the General Assmbly of
		Shareholders_DANTE_Nr. 73_06.07.2023
	√	Declaration_DANTE_Nr. 1593_21.09.2023
	\checkmark	FCC_Almimax Natura_Partnership Agreement_Nr.
		35_01.09.2021
	~	FCC_Dante_Partnership_Agreement_carbon_credits_613 20.04.2022
	~	FCC_Wildland_Partnership_Agreement_Nr.387_01.10.20
		21
	√	Purchase Contract_Nr. 1814_04.09.2023
	v	CVC AN 37-20091223
	v	CVC AN 432-20100319
	v	CVC AN 923-20080625
	✓ ✓	CVC AN 1023-20080716 CVC AN 1211-20090814
	v v	CVC AN 1211-20090814 CVC AN 1231-20080827 lot9
	· ·	CVC AN 1251-20080821 1019 CVC AN 1251-20090821
	· ·	CVC AN 1253-20090821
	· √	CVC AN 1253 20030021 CVC AN 1254-20090821
	1	CVC AN 1413-20070920 lot3
	✓	CVC AN 1707-20091103
	✓	CVC AN 1708-20091103
	✓	CVC AN 1938-20071128
	✓	Folder_Eligilble SN
	✓	Folder_Eligible WL_RF
	✓	Eligible_FCC
	Summa	ary_Dante
/29/	Declar	ation from FCC that the project is not registered or
	previo	usly rejected under any other GHG program and not



	included in any emission trading scheme or any other	
	mechanism that include GHG trading mechanism.	
	✓ FCC Declaration_Other GHG Programs_EN	
	✓ FCC Declaration_Other GHG Programs_RO	
/30/	Leakage	
	 Comparison_Baseline and national harvest levels 	
	✓ EligibilityAnalysis_Carpathia_map_V2	
	✓ FCC_Masterplan_excerpts	
	✓ Leakage_National Level Carpathia	
/31/	Evidence pertaining to Non-Permanence Risk Report	
	1. World Bank Governance Risk Indicator:	
	https://www.govindicators.org/interactive-data-access	
	Governance Indicators_Romania.xlsx	
	2. Romania FSC webpage:	
	https://www.certificareforestiera.ro/	
	https://connect.fsc.org/document-centre/documents/resource/275	
	3. Romania PEFC membership webpage:	
	https://www.pefc.org/discover-pefc/our-pefc-members/national-	
	members/pefc-romania	
	4. NPRR_State of the Forests Report 2020. Ministry of Environment, Water and Forests, Romania.	
	5. https://thinkhazard.org/en/report/203-romania/EH	
	6. https://thinkhazard.org/en/report/203-romania/EQ	
	7. https://thinkhazard.org/en/report/203-romania/LS	
	8. Financial Viability Carpathia.xlsx	
/B01/	VCS Program Guide (v4.3, dated 17/01/2023) VCS Standard (v4.4, dated 17/01/2023) CCB Standard (v3.1, dated 21/06/2017)	
	(d) CCB Program Definitions (v3.0 dated 21/06/2017	
	(e) Program Definitions (v4.3, dated 21/12/2022)	
/P02/	(f) Registration & Issuance Process (v4.3, dated 17/01/2023)	
/B02/	VCS methodology VM0012: Improved Forest Management in temperate and Boreal Forests (LtPF) v1.2	
/B03/	VT0001 – Tool for Demonstrating and Assessment of Additionality	
, 000,	in VCS Agriculture, Forestry and Other Land Use (AFOLU) Project	
	Activities $- v3.0$, Sectoral Scope 14	



APPENDIX 2: FINDINGS LOG

Table 1. Remaining FAR from previous validations

FAR ID	XX	Section no.		Date: DD/MM/YYYY			
Description	Description of FAR						
Project par	Project participant response Date: DD/MM/YYYY						
Documenta	Documentation provided by project participant						
VVB assessment Date: DD/MM/YYYY							

Table 2.CL from this validation

CL	01	Section no.	CCB & VCS PD	Date: 10/09/2023			
Descri	otion of CL	•	•				
1. In	1. In compliance with Section 4 of VM0033 Methodology (v1.2), PP shall provide evidence to						
de	demonstrate that project does not include non-de mininis application of fertilizer in the project						
SC	scenario.						
2. In	In Section 2.2.1 of the CCB & VCS PD, PP has mentioned that "Before the Carpathia Forest						
Ca	rbon Project, the pro	perties had a fo	prest management plan	that allowed timber harvesting,			
	•			has not been cleared of native			
ec	osystems within 10 ye	ears of the project	ct's start date."				
In li	ght of the above state	ement PP shall f	urnish evidence to subst	antiate that the project areas			
wei	e not cleared of nativ	e ecosystems to	create GHG credits (e.g	g., evidence indicating that			
				align with the guidelines			
	ned in section 3.2.4 (participant respon		dard, (V4.4).	Date: 04/10/2023			
			B during the on-site visit	that the project does not involve			
			activities comprise of con				
2.PP h	ave discussed and cla	arified to the VVI	B during the on-site visit	that the areas were not cleared			
of the	native ecosystem	(i.e., the his	storical tree compositi	on in the areas [such as			
			• •	ained the same 10 years before			
the pro	ect start date) to crea	ate GHG credits.					
Docun	entation provided b	by project partic	cipant				
	1.See document:						
FCC S	FCC Statutes.pdf						
2 500	2.See documents:						
	CCB_VCS_PD_Carpathia_V1.0_TRACK_CHANGES_Oct2023.docx						
2006_\	2006_VegetationCover_Carp_RO01.png						
2018_\	2018_VegetationCover_ProtectAreas_V2.png						
VVB a	ssessment			Date: 10/10/2023			

- VVB, based on the on-site inspection and review of the supporting document "FCC Statutes", confirms that that the project does not involve any application of fertilizer since the project activities comprise of conservation activities. PP has mentioned the Objectives of the Foundation to administrate forests, grasslands, wild flora and fauna for the conservation of biodiversity in Romania; to unfold agriculture activities for the conservation of biodiversity.
- 2. VVB, based on the on-site inspection and by reviewing the shapefiles, confirms that the areas were not cleared of the native ecosystem to create GHG credits.

CL	02	Section no.	CCB & VCS PD	Date: 10/09/2023			
Descriptio	Description of CL						
Section 8.1 changes in the project However, a documents	Section 8.1 and 9.3.10 of the VM0012 (v1.2), requires all calculations representing annualized net changes in carbon stocks by polygon. Results from each polygon must therefore be summed across the project activity area to determine the annual total net emissions and reductions. However, annual changes on carbon stocks by polygon could not be evidenced from the provided documents. Clarification is requested as to how this methodological requirement has been complied						
with.	rticipant respons	20		Date: 06/10/2023			
The methor statistical c	dology indicated t	hat "At minimum ction 8.5.3." For	n, more than one polygon per large projects, which would commended.	r project is required for the			
polygons s polygons w analysis ur	This was the case of the Carpathia project. The project area is divided into polygon according to the polygons stated in the FMPs. As the project area consists of more than 3000 stands/polygons, the polygons were aggregated to analysis unit (AU) or "strata" as recommended in VM0012. Each analysis unit was then used to estimate the baseline and project scenarios (as also detailed, explained and revised in the PDD) to estimate the net emissions.						
	ation provided b						
See docum	ent: CCB_VCS_F	PD_Carpathia_V	1.0_TRACK_CHANGES_O	xt2023.docx			
See folder:	B. GHG Carbon (Calculation under	r 1.Annex 1_List of Data and	Supporting Documentation			
VVB asse	ssment			Date: 10/10/2023			
VVB, based on the revised CCB & VCS PD and carbon calculation sheet, confirms that the project area is divided into polygon according to the polygons stated in the FMPs. The Carpathia forest inventory contains a vector-format GIS inventory dataset with photo-interpreted stand polygons and associated forest inventory attributes. The polygons are homogeneous based on forest cover species (interpreted at 10% intervals), stand age, productivity, and other forestry stand attributes used in management planning. The Forest Analysis Units (AU) are described in Table 8 of the CCB & VCS PD, identifying the process by which various stand polygons were assigned to an AU.							
CL	03	Section no.	CCB & VCS PD	Date: 10/09/2023			

CL	03	Section no.	CCB & VCS PD	Date: 10/09/2023	
Description of CL					



Section 8.1(Step 1) of the VM0012 (v1.2) require stratification of the project area according to:

- 1. Management regime. For example, types of harvesting (clear cutting, patch retention), and land conversions for roads and landings.
- 2. Site index / anticipated growth rates
- 3. Forest species
- 4. Age class

However, review of project documents reveals stratification based on types of wood (hardwood and softwood). Clarification is requested as how this methodological requirement has been complied with.

Project participant response

Date: 04/10/2023

The above-mentioned criteria are only suggested tiers. The only requirement by the standard is "At minimum, more than one polygon per project is required for the statistical calculations in Section 8.5.3." For large projects, which would end up with >25 polygons for strata, aggregation to analysis units is recommended. This would be the case for the project. The project area is divided into polygon according to the polygons stated in the FMPs.

Each polygon represents a "stand", i.e. a homogenous (in terms of management history, species composition, and age) forest units. As the project area consists of more than 3000 stands/polygons, the polygons were aggregated to analysis unit or "strata" as recommended in VM0012. Since the forest type (coniferous/soft wood, mixed, deciduous/hardwood) is the clearest differentiator to create homogenous strata in this project, it was chosen as the analysis unit criterion.

Description in PD has been revised to clarify the stratification approach

Documentation provided by project participant

See document: CCB_VCS_PD_Carpathia_V1.0_TRACK_CHANGES_Oct2023.docx

VVB assessment

Date: 10/10/2023

VVB, based on the revised CCB & VCS PD, confirms that the project area is divided into polygon according to the polygons stated in the FMPs. Each polygon represents a "stand", i.e. a homogenous (in terms of management history, species composition, and age) forest units thus leads to the closing of the finding.

CL has been closed

CL	04	Section no.	CCB & VCS PD	Date: 10/09/2023			
Descrip	tion of CL						
Section 2.1(Step 13) of the VM0012 (v1.2) requires calculation and application of an uncertainty factor to net GHG emission reductions.							
	However, review of project document reveals no details on determination of uncertainty factor. Clarification is requested as how this methodological requirement has been complied with.						
Project	participant resp	onse		Date: 06/10/2023			
The uncertainty factor is calculated on the basis of the monitoring outcomes. The calculations and raw data can be found in the ex-post Excel spreadsheet. Further, intermediate calculations for the ex-post results, such as the volume to biomass expansion, were performed in R. The related R script and technical documentation have been made available.							
It is here important to not, that the uncertainty factor can only be calculated once monitoring results are available. Accordingly, the uncertainty factor could not yet be estimated at the time of submitting the first PD draft.							

Documentation provided by project participant

See documents:

<u>Ex_post_calculations.xlsx</u> (see tab "Error_and_uncertainty") <u>Ex post results</u> (for supporting material)

VVB assessment

Date: 10/10/2023

VVB based on the justification and the "Ex-post results" supporting document confirms that the uncertainty factor can only be calculated once monitoring results are available. However, VVB confirms that PP has calculated the uncertainty factor as 4.0%.

CL has been closed

	CL	05	Section no.	Shapefiles	Date: 10/09/2023
Description of CL					

VVB, based on review of the shapefiles, confirms that there are some inconsistences:

The shapefile "Eligibility_analysis_2007_2022_Ca_RO01.shp", include no-suitable areas belonged to the restricted class "Spruce Monoculture" as eligible areas, (see figures below as reference and check shapefile shared).



PP is requested to clarify on this. **Project participant response**

Date: 06/10/2023

PP provided clarification and explanation to the VVB during the on-site visit. Further, the "No_suitable_areas_for_IFM_Ca_RO01.shp" (shown as yellow polygons in the image above) was clarified and revised to include areas that belonged to "Spruce Monoculture" as eligible based on the criteria from the methodology:

Project activities cannot remove > 20% of the harvesting volume projected in the baseline scenario over an equivalent 10-year period. Project proponents must be able to demonstrate that activities:

- a. have a conservation benefit and are consistent with principles of managing biodiversity, ecosystem function, and carbon retention.
- b. are related to restoration, ecological management, or emissions risk reduction.

PP was able to demonstrate that project activities did not remove 20% of the harvesting volume in the baseline scenario (see documentation below).



The "Eligibility_analysis_2007_2022_Ca_RO01.shp" was not revised/changed, hence the hectarage of the eligible areas also remained the same.

Documentation provided by project participant

See documents under the folder G. Maps and Shapefiles with Geodetic Polygons > 26.06.2023_Eligible_areas:

No_suitable_areas_for_IFM_Ca_RO01.shp Eligibility_analysis_2007_2022_Ca_RO01.shp

See document <u>Ex_post_calculations.xlsx</u> under Annex 1_List of Data and Supporting Documentation > O. List of documents for Verification > Ex post results

VVB assessment

Date: 10/10/2023

VVB based on the on-site inspection and revised shapefiles "26.06.2023_Eligible_areas: No_suitable_areas_for_IFM_Ca_RO01.shp, Eligibility_analysis_2007_2022_Ca_RO01.shp" confirms that PP has clarified and revised to include areas that belonged to "Spruce Monoculture" as eligible based on the criteria from the methodology.

CL	06	Section no.	2.3.1, CCB & VCS PD	Date: 10/09/2023			
Description	Description of CL						
	In compliance with Section 3.18 of VCS Standard (v4.4), PP shall clarify how the stakeholder meeting was conducted (live or remote).						
	st of stakeholder		er meeting invitation letter, the feedback received, o				
As per foot & mapping		B & VCS PD, P	P is requested to provide the	e stakeholder identification			
	ticipant respons	e		Date: 05/10/2023			
 Stakeholder meetings were conducted following the FCC communication channels mentioned in section 2.3.9 (Stakeholder consultation channels) in CCB & VCS PD. With the employees a presentation was conducted to explain the Carbon Project (see documentations below). With council and majors of the counties presentations and one-one explanations were conducted. In the documentation provided please find the presentation, photos, attendance lists of the stakeholder meetings. For stakeholder identification and analysis, the Tool stakeholder Matrix was used. After the identification of the stakeholders, these were ranked according to their interest and influence in the Carbon Project (see document CCB Socialization Carpathia). 							
Documenta	Documentation provided by project participant						
See documents: <u>K. Stakeholder Meeting</u> (folder) under the 1. Annex 1_List of Data and Supporting Documentation <u>Stakeholder Presentation.pptx</u> <u>CCB_Socialization_Carpathia_RESULTS_Set2022.docx</u>							
VVB asses	ssment			Date: 10/10/2023			



VVB, based on the review of the supporting documents "CCB_Socialization_Carpathia_RESULTS_Set2022, Participant List Meeting Leresti 20220913, Participant List Nucsoara 20210909, Participant List Nucsoara 20210930, Participant List Nucsoara 20211021, Participant List SDL Leresti 20210617, Stakeholder Presentation", confirms that PP has provided the participation list, Stakeholder presentation, socialization and consultation procedure which involves the stakeholder identification, mapping and involvement of Government and Regional Authorities, Local Communities, Resource Managers, etc. along with the Potential negative impacts and risks and Grievance and redress procedure as per "FCC - Grievance and redress procedure", Operational procedure for accessing and dealing with requests from the general public as per "Operational procedure for accessing and dealing with requests from the general public EN", procedures for solving problem as per the "Procedure for solving complaints EN" and SOP Communication with Local Stakeholders as per the "SOP Communication with Local Stakeholders 20230925". PP has supplied ample information to conclude the resolution of the finding.

CL	07	Section no.	2.1.12, CCB & VCS P	D Date: 10/09/2023		
	ion of CL					
 As stated in section 2.1.12 of the listed CCB & VCS PD, PP shall clearly demonstrate the appropriateness of the selected SDGs by identifying relevant targets and indicators specifically for the selected SDGs 6, 8, 14. a) PP shall illustrate how the conservation of forested land in the headwaters of the Dambovita Valley will contribute to ensuring a stable water supply and promoting sustainable management practices. b) PP is requested to furnish documentation that includes a list of employees involved in wildlife management, forest patrol, and the eradication of invasive species. Furthermore, they shall provide comprehensive details regarding the training programs undertaken by these employees in these respective areas. c) PP is requested to provide a list of indigenous fish species found in the mountain waters of Romania that are currently facing a significant risk of extinction. 						
Ron	nania that are curre	ntly facing a sign	ifficant risk of extinction.			
	participant respon			Date: 05/10/2023		
follows: - SDG 6 I - SDG 14 - SDG 2 I - SDG 4 3 b) Find in c) SDG 6	 a) The SDG contribution table (see section 2.1.12 Sustainable Development) has been modified as follows: SDG 6 has been deleted (insufficient evidence for indirect impacts). SDG 14 has been deleted (insufficient evidence for indirect impacts). SDG 2 has been added and relevant targets/impact categories and indicators. SDG 4 and relevant targets/impact categories have been added. b) Find information in the links below c) SDG 6 has been deleted 					
	Documentation provided by project participant					
a) See Section 2.1.12 of CCB_VCS_PD_Carpathia_V1.0_TRACK_CHANGES_Oct2023.docx See documents under folder 3. On-Site Visit Documentation > FCC Employees_Statistics b.1) <u>CARPATHIA Training overview_2017_2023.xlsx</u> b.2) <u>Daily workers registry_Carbon P_2023.csv</u> b.3) <u>Employees Positions_Skills.xlsx</u>						
VVB ass	sessment			Date: 10/10/2023		



Following the revised CCB & VCS PD, VVB affirms that PP has made amendments and chosen SDGs 2, 4, 8, 13, and 15. Additionally, PP has furnished details regarding the Targets and Indicators associated with these SDGs. Furthermore, supporting documents "CARPATHIA Training overview_2017_2023.xlsx, Daily workers registry Carbon P_2023.csv, Employees_Positions_Skills.xlsx" have been provided by PP to substantiate the selected SDG goals, including a comprehensive list of employments along with their corresponding positions and the documented training records for each.

CL has been closed.

CL	08	Section no.	CCB standard v3.1	Date: 10/09/2023			
Description of CL							
In complian	In compliance with Section 3.8 of the VCS Standard (v4.4) and Section G.1(9) of CCB standard						
(v3.1), "The	project start date	e of an AFOLU	project is the date on which	activities that led to the			
generation	generation of GHG emission reductions or removals are implemented (e.g., preparing land for						
seeding, planting, changing agricultural or forestry practices, rewetting, restoring hydrological							
functions, or	implementing ma	anagement or p	rotection plans)"				

PP shall provide proof of start date along with the evidence of the date.

Project participant response

Date: 04/10/2023

Proof for the project start date has been provided and confirmed by the VVB during the on-site visit. Digital copies of the proof of project start date have also been uploaded as part of supporting documentation.

Documentation provided by project participant

See document "<u>1a. Decision FCC Total protection 2017 EN.pdf</u>" under the folder Annex 1_List of Data and Supporting Documentation > D. Project Timeline > Project Start Date.

VVB assessment

Date: 10/10/2023

VVB, based on the supporting documents "1a. Decision FCC_Total protection_2017_EN", confirms that PP has provided the relevant evidence for the project start date i.e., 9th August 2017 undersigned by PROMBERGER CHRISTOPH CHRISTOPH FRANZ JOHANNES, with ID no. 7650610080016. VVB has also validated the Legal documents confirming the cessation of harvesting activities in eligible areas. This marks the initiation of conservation efforts aimed at generating greenhouse gas emission reductions. During the project's validation process, VVB examined the Decision of the Executive Directors of the Foundation Conservation Carpathia (FCC), specifically Decision No. 18 dated 09 August 2017.

VVB affirms that the aforementioned decision outlines the commitment of FCC's Executive Directors to place all lands acquired, both before and within a 100-year period starting from 09 August 2017, under comprehensive and exclusive protection. This strategic move is intended to fulfill the organization's goals and objectives. Given that FCC is the designated project proponent possessing management and carbon rights, the legal document in question signifies the commencement of activities related to the Improved Forest Management (IFM) project. In essence, these activities encompass conservation efforts that have the potential to yield significant reductions in greenhouse gas emissions.

CL	09	Section no.	NPRR	Date: 10/09/2023		
Description of CL						
In con	In compliance with Non-Permanence Risk Report Template Instruction (v4.0), PP shall clarify the					
following:						
1. Delete all instructions, including introductory text, from the final document.						

- 2. In Project Management risk: the assessment as presented against point (c) & (d) are incorrect as they don't reflect the actual situation with respect to the skill set of the project management team and their presence in the host country.
- 3. Financial Risk: An explanation on how the risk rating (point c and g) was selected has not been provided. Moreover, the supporting documents (viz., financial analysis sheet) for the same shall be provided.
- 4. Opportunity Cost Risk: An explanation on how the risk rating (point c) was selected has not been provided. Moreover, the supporting documents (viz., analysis sheet) for the same shall be provided along with evidence for mitigation actions as proposed in point (g) & (h).
- 5. Longevity Risk: Supporting documents for selected risk rating shall be provided.
- 6. Land tenure & resource access risk: the assessment as presented against point (a) & (b) are incorrect as they don't reflect the actual situation with respect to the ownership of the land and resource access.
- 7. Under Political Risk, PP shall provide evidence for the statement "Romania's average governance score from 2017-2021 is -0.16" and also PP shall mention the six indicators of the World Bank Institute's Worldwide Governance Indicators (WGI).
- 8. In compliance with Non-Permanence Risk Report Template Instruction v4.0, PP shall complete Section 3 Natural Risk of NPR report and provide evidence and justification for selection of applicable likelihood and significance level.
- 9. Under Section 4.1 of the NPR report, PP has been mentioned the Overall Risk Rating as 11, however in tab "12. Leakage, NPRR, ERR, and BR" of document "Ex ante_VCU_Calculations_Carpathia Forest Carbon Project" PP has given the non-permanence rating as 10%. PP shall correct the inconsistency.

Project participant response

Date: 04/10/2023

In compliance with Non-Permanence Risk Report Template Instruction (v4.0), the following were clarified by the PP:

- 1. Delete all instructions, including introductory text, from the final document. PP have deleted/removed all instructions in the Non-Permanence Risk Report (NPRR)Template.
- 2. In Project Management risk: the assessment as presented against point (c) & (d) are incorrect as they don't reflect the actual situation with respect to the skill set of the project management team and their presence in the host country. PP have revised the NPRR Template based on the actual situation of the project management composition and presence in the host country. The revision was also confirmed during the on-site discussion with the VVBs.
- 3. Financial Risk: An explanation on how the risk rating (point c and g) was selected has not been provided. Moreover, the supporting documents (viz., financial analysis sheet) for the same shall be provided. PP have revised the NPRR Template to reflect the basis for the chosen risk rating (c and h) and further provided the supporting documents reflecting the financial analysis as basis for the risk rating. The revision was also confirmed during the on-site discussion with the VVBs.
- 4. Opportunity Cost Risk: An explanation on how the risk rating (point c) was selected has not been provided. Moreover, the supporting documents (viz., analysis sheet) for the same shall be provided along with evidence for mitigation actions as proposed in point (g) & (h). PP have revised the NPRR Template to reflect the basis for the chosen risk rating (c and h) and further provided the supporting documents reflecting the financial analysis as basis for the risk rating. The revision was also confirmed during the on-site discussion with the VVBs.

- Longevity Risk: Supporting documents for selected risk rating shall be provided. PP provided the 1) partnership agreements reflecting that FCC has the land ownership and carbon rights of the project and 2) FCC statues reflecting the mandate to continue project implementation (i.e., conservation) in perpetuity.
- 6. Land tenure & resource access risk: the assessment as presented against point (a) & (b) are incorrect as they don't reflect the actual situation with respect to the ownership of the land and resource access. PP have revised the NPRR Template based on the actual situation of the project's land ownership and resource access. The revision was also confirmed during the on-site discussion with the VVBs.
- 7. Under Political Risk, PP shall provide evidence for the statement "Romania's average governance score from 2017-2021 is -0.16" and PP shall mention the six indicators of the World Bank Institute's Worldwide Governance Indicators (WGI). PP has revised the governance score to include the six governance indicators from World bank. The previous estimation only included the Governance Effectiveness indicator. The NPRR Template and the NPRR Excel Tool were both revised accordingly.
- 8. In compliance with Non-Permanence Risk Report Template Instruction v4.0, PP shall complete Section 3 Natural Risk of NPR report and provide evidence and justification for selection of applicable likelihood and significance level. PP has revised the Section 3 Natural Risk of NPRR and provided evidence and justification for the selected applicable likelihood and significance level.
- 9. Under Section 4.1 of the NPR report, PP has been mentioned the Overall Risk Rating as 11, however in tab "12. Leakage, NPRR, ERR, and BR" of document "Ex ante_VCU_Calculations_Carpathia Forest Carbon Project" PP has given the non-permanence rating as 10%. PP shall correct the inconsistency. PP has corrected/revised the NPRR document based on discussion with VVB during the on-site visit and revised the document "Ex ante_VCU_Calculations_Carpathia Forest Carbon Project" that reflected the correct Overall Risk Rating of 12.

Documentation provided by project participant

See the following documents:

Carpathia_VCS-Non-Permanence-Risk-Report-Template-v4.0

See folder 3. On-Site Visit Documentation > Non-Permanence Risk Report Financial Viability Carpathia.xlsx NPRR_Governance Indicators_Romania.xlsx NPRR_State of the Forests Report 2020.docx

VVB assessment

Date: 10/10/2023

Following the review of the revised Non-Permanence Risk Report and accompanying documents "Financial Viability Carpathia.xlsx, NPRR_Governance Indicators_Romania.xlsx, NPRR_State of the Forests Report 2020.docx", VVB confirms that PP has revised and rectified all required sections in accordance with the specified instructions. Additionally, PP has submitted comprehensive supporting evidence substantiating the statements made in the report.

CL	10	Section no.	1.2, CCB & VCS PD	Date: 10/09/2023	
Description of CL					



PP is requested to provide clarification regarding the inconsistency in the reported net estimated GHG emission reductions or removals within the CCB & VCS PD document.

Specifically, the figures mentioned Section 1.2 of the CCB & VCS PD, PP has mentioned the "net estimated emission reductions in the project area as 2,251,670 tCO2e", whereas in Section 2.1.1 of the CCB & VCS PD, PP has mentioned "the net estimated emission reductions as 2,281,991 tCO2e" but in Section 2.1.17 of the CCB & VCS PD, PP has mentioned "2,906,996 tCO2e as Estimated net GHG emission reductions or removals (tCO2e)."

PP is requested to clarify this. Project participant response

Date: 04/10/2023

The correct net estimated GHG emission reductions within the PD document has been revised and made consistent.

Documentation provided by project participant

See document: CCB_VCS_PD_Carpathia_V1.0_TRACK_CHANGES_Oct2023.docx Date: 10/10/2023

VVB assessment

VVB, based on the revised CCB & VCS PD, confirms that PP has corrected the reported net estimated GHG emission reductions or removals and has provided the estimated gross GHG emission reductions or removals 2,130,949.4 tCO₂e (excluding buffer).

CL	11	Section no.	2.4.5, CCB	& VCS PD	Date: 10/09/2023		
Description							
					Foundation Conservation		
Carpathia w	ill provide objec	ctive evidence to	the CCB a	uditing team to	support assertions of its		
financial hea	alth. The followin	g documents will	l be shared:				
 Final 	ancial statements	and audit repor	ts.				
	ual reports and b						
• Gra	nt agreements w	ith third parties."					
PP is reque	sted to provide th	ne relevant docui	ments as mei	ntioned above.			
Project par	ticipant respons	se			Date: 04/10/2023		
The PP has	shared and uplo	aded the suppor	ting documer	nts mentioned ab	oove.		
			-				
Documenta	tion provided b	y project partic	ipant				
				ntation > Non-Pe	ermanence Risk Report >		
Financial Inf							
	,						
See docume	ents:						
FCC 2017 A	udit report long	form signed					
	udit report long						
VVB asses	VVB assessment Date: 10/10/2023						
Upon reviewing the supporting documents "FCC 2017 Audit report long form signed and FCC 2018							
Audit report long form", VVB confirms that PP has supplied the necessary and pertinent documents							
as outlined in the CCB & VCS PD. Consequently, this leads to the resolution and closure of the							
finding.							
5							
CL has been closed							
CL	12	Section no.	VM0012	Methodology	Date: 10/09/2023		
			v1 2				

CL	12	Section no.	VM0012 v1.2	Methodology	Date: 10/09/2023	
Description	Description of CL					

CCB & VCS VALIDATION REPORT:

CCB Version 3, VCS Version 3

In line with Section 9.3.6 of the VM0012 v1.2, PP shall provide the following:

- 1. Training manual & plans
- 2. Quality Control/Quality Assurance and Data Archiving procedures for
 - collecting reliable field measurements;
 - verifying laboratory procedures; and

CCB Standards

- verifying data entry;
- 3. Training records
- 4. Competencies of monitoring personnel in line with section 9.3 of the applied methodology
- 5. Project planting/Management plan including harvesting/re-plantation plan along with the details of silvicultural practices,
- 6. Spatial inventory change monitoring procedures
- 7. SOPs for Terrestrial Lidar System (TLS) including competency of personnel or institution performing the standardized monitoring.

Project participant response

Date: 06/10/2023

- 1. Training plans for the external service provider was uploaded and shared to the VVB.
- 2. Quality Control/Quality Assurance and Data Archiving procedures have been added to the revised PD. See section 3.3.3
- 3. Training records for the external service provider were uploaded and shared to the VVB.
- 4. Competencies of the monitoring personnel was demonstrated during the on-site visit.
- 5. In the project area no harvesting is planned except conservation cuttings in spruce monocultures. These cuttings aim to transform spruce monocultures into mixed stands. Documentation for silvicultural practices regarding these conservation cuttings has now been provided.
- 6. The PD has been revised with an added section "Updating of Monitoring Polygons (Strata) at the end of the monitoring plan.
- 7. SOPs for Terrestrial Lidar System (TLS) by the external service were uploaded and shared to the VVB. This was further checked and confirmed during the on-site visit by the VVBs.

Documentation provided by project participant

See folder 2. <u>SOPs Forest Inventory (TLS)</u> with the following documents:

Forest Design Standard Operating Procedures.docx (covering points 1-4 and 7) Procedure annual remote and ground-based monitoring analysis.docx TLS_Standardized Field Protocols_Forest Design.pdf (further documentation for point 7)

See document: Manual for spruce monoculture conversion.pdf (for point 5)

See document: CCB_VCS_PD_Carpathia_V1.0_TRACK_CHANGES_Oct2023.docx (for point 6)

VVB assessment

Date: 10/10/2023



VVB, based on the supporting documents "SOPs Forest Inventory (TLS) Forest Design Standard Operating Procedures, Procedure annual remote and ground-based monitoring analysis.docx TLS_Standardized Field Protocols_Forest Design.pdf, Manual for spruce monoculture conversion.pdf" confirms that PP has provided all the pertinent documents which includes the Forest Design Standard Operating Procedures, Forest Inventory and Monitoring, Training Manual & Plans (Forest Monitoring, Forest Inventory Methods, Use of GIS Data and Mobile Mapping, Quality Control and Assurance, Safety Protocols, Environmental Considerations), Training methods, Quality Control/Quality Assurance and Data Archiving Procedures, Training Records, Competencies of Monitoring Personnel, Spatial Inventory Change Monitoring Procedures and Standard Operating Procedures (SOPs) for Terrestrial Lidar System (TLS). This results in the closure of the finding.

CL has been closed

	40	0		D -1- 40/00/0000			
CL	13	Section no.	CCB & VCS PD	Date: 10/09/2023			
Description							
	In compliance to section 3.22 of VCS Standard (v4.4), PP is requested to provide a declaration to demonstrate the following:						
prog	programs and						
			any other GHG programs.				
trad d) The	ing program or ar project has neith	ny other mechar ner sought nor r	from activities that are not in hism that includes GHG allow received another form of GH	ance trading.			
	lit, including renev						
e) The	project is not invo	olved in any sup	oply chain process.				
Project part	ticipant respons	е		Date: 04/10/2023			
			e (a-e) during the on-site visit I shared with the VVB.	and was confirmed by the			
Documenta	tion provided by	y project partic	ipant				
			G Programs_EN.pdf' under t avoidance of double counting				
VVB asses	sment			Date: 10/10/2023			
CL has bee	CL has been closed.						

CL 14 Section no. Carbon ownership Date: 10/09/2023 Description of CL In accordance with Section 3.7 of VCS Standard (v4.4), PP is requested to provide the certificate of incorporation of the different project proponents involved in the project activity. Project participant response



Certificate of Registration confirmed by the VVBs during on site visit and digital copies of the documents uploaded.

Documentation provided by project participan

See folder "Company registration certificates" under Annex 1_List of Data and Supporting Documentation > F. Regulations and Approvals".

See the following documents under the "Company registration certificates": Company registration DANTE INTL._20230918 Company registration_ALMIMAX NATURA_20230227 FCC_Foundation 138egistration_Extras RAF_20230808 ROMFOR SUSTAINABLE FORESTRY_Company registration_20230220 SANATATE & NATURA_Company registration_20220530 WILDLAND Company registration 20230830

VVB assessment

Date: 10/10/2023

Upon reviewing the supporting documents "Company registration DANTE INTL._20230918, Company registration_ALMIMAX NATURA_20230227, FCC_Foundation egistration_Extras RAF_20230808, ROMFOR SUSTAINABLE FORESTRY_Company registration_20230220 SANATATE & NATURA_Company registration_20220530 and WILDLAND_Company registration_20230830" and on-site inspections, VVB confirms that PP has supplied the necessary certificate of incorporation of the different project proponents involved in the project activity. Consequently, this leads to the resolution and closure of the finding.

CL has been closed

CL	15	Section no.	3.2.1, CCB & VCS PD	Date: 10/09/2023			
Description of CL							
In compliance with Section 8.1.5 of the VM0012 (v1.2), PP shall provide the following:							
I.	Dead wood decay m	odel.					
П.	Harvested wood proc	ducts emission r	nodel.				
111.	III. Baseline and Project emissions model (8.1 & 8.2)						
IV.	Evidence to demonstrate that the project activities do not remove > 20% of the harvesting						
	volume projected in the baseline scenario over an equivalent 10-year period (8.2)						

Project participant response

Date: 06/10/2023



All 4 components have been provided.

Regarding I: For the deadwood decay modelling this project relies on CBM-CFS. CBM tracks the flow of carbon across several deadwood/DOM carbon pools in accordance with IPCC GPG and VM0012 requirements. Deadwood decay is modelled on the basis of regionally calibrated decay parameters. These decay parameters are provided in the CBM parameter database for the EU and are freely accessible.

Regarding II: Harvested wood product emissions are modelled during post-processing of the CBM outputs. The calculations were partly performed in R following the VM0012 recommended methodology. The results (i.e., HWP carbon stocks and emissions) are presented in the Excel workbook. Further, all necessary documentation (raw data, R script, and technical documentation) required to replicate the calculation have been provided.

Regarding III: Baseline and Project emissions model have been provided in the Excel file. Here it should be noted that several of the intermediate modelling steps are performed internally in CBM, and are not reported directly. All necessary documentation required to replicate the results has been provided.

Regarding IV: This evidence have be found in the Excel workbook (sheet "10. Max_Prj_Harvest_Criteria") and is reported in the PD.

All relevant sections is the PD have been revised for clarification.

Documentation provided by project participant

See following documents under folder 1. Annex 1_List of Data and Supporting Documentation > B. GHG Carbon Calculation > Supporting Material_Carbon Calculations:

I. All CBM data, including parameter database can be found in <u>CBM data</u>

II. All data and documentation for HWP emission model can be found in <u>HWP post-processing</u>

III. <u>Ex-ante_VCU_Calculations_Carpathia Forest Carbon Project.xlsx</u> see tab "5. Summary Carbon pools and ER" for results summary.

IV. <u>Ex-ante_VCU_Calculations_Carpathia Forest Carbon Project.xlsx</u> see sheet "10. Max Prj Harvest Criteria"

VVB assessment

Date: 10/10/2023

VVB, after assessing the justification and examining the supporting documents "CBM data, HWP post-processing, Ex-ante_VCU_Calculations_Carpathia Forest Carbon Project.xlsx and Max_Prj_Harvest_Criteria", affirms that the modeling of deadwood decay is grounded in regionally calibrated decay parameters. These parameters are sourced from the CBM parameter database for the EU and are openly accessible. Emissions from harvested wood products are modeled during the post-processing of CBM outputs. The calculations were conducted partially in R, aligning with the VM0012 recommended methodology. Both the Baseline and Project emissions models have been presented in the provided Excel file.

CL	16	Section no.	VM0012 v1.2	Methodology	Date: 10/09/2023
Description of CL					

In accordance with Section 5.1 & 8.3.1 of the VM0012 (v1.2), PP shall provide the following:

- 1. Leakage assessment of all spatially relevant forest land holdings owned or managed by the project proponent.
- 2. Historical records showing trends in harvest volumes paired with records from the project time period showing no deviation from historical trends, or
- 3. Forest management plans prepared ≥ 24 months prior to the start of the project showing harvest plans on all owned/managed lands paired with records from the project time period showing no deviation from management plans; and/or
- 4. Other evidence and justification to demonstrate activity shifting related to the project is not occurring.

Furthermore, Section 2.1(Step 11) of the VM0012 (v1.2) requires assess leakage risks to determine a leakage factor to be applied to the net annual GHG emission changes.

However, review of project documents reveals Leakage Discount Factor at 0%. PP is requested to clarify this.

Project participant response

Date: 04/10/2023

PP in accordance with the Section 5.1. and 8.3.1. of the VM0012 (v1.2) provided and discussed during the on-site with the VVBs the following:

- 1. Leakage assessment of all spatially relevant forest land holdings owned or managed by the project proponent. Shapefiles of the leakage areas considered in the leakage assessment were uploaded as part of the supporting documentation.
- 2. Historical records showing trends in harvest volumes paired with records from the project time period showing no deviation from historical trends, or
- 3. Forest management plans prepared ≥ 24 months prior to the start of the project showing harvest plans on all owned/managed lands paired with records from the project time period showing no deviation from management plans; and/or
- 4. Other evidence and justification to demonstrate activity shifting related to the project is not occurring.

Points 2-4 above were addressed and clarified during the on-site visit discussion with the VVBs and clarified in the revised PDD Section 3.2.3 Leakage (Activity Shifting Leakage). Supporting documentation were also showed to the VVBs and uploaded as part of the supporting documentation.

Furthermore, Section 2.1(Step 11) of the VM0012 (v1.2) requires assess leakage risks to determine a leakage factor to be applied to the net annual GHG emission changes.

PP provided a step-wise description and revised the Section 3.2.3 Activity Shifting Leakage and Market Leakage following the steps required by the Section 8.3. Leakage of VM0012 (v1.2). Section 2.1(Step 11) of the VM0012 (v1.2) pertains to Section 8.3. Leakage (that covers both Section 8.3.1. Activity Shifting Leakage and Section 8.3.2 Market Leakage) of the VM0012 (v1.2). Supporting documentation were also showed to the VVBs and uploaded as part of the supporting documentation.

Documentation provided by project participant



See the following documents:

CCB_VCS_PD_Carpathia_V1.0_TRACK_CHANGES_Oct2023.docx

See folder J. Leakage under 1. Annex 1_List of Data and Supporting Documentation Comparison_Baseline and national harvest levels.xlsx Leakage_National Level Carpathia.png Leakage_National Level Carpathia.shp

VVB assessment

Date: 10/10/2023

After a thorough on-site inspection and careful review of the updated CCB & VCS PD along with the accompanying documents "Comparison_Baseline and national harvest levels.xlsx, Leakage_National Level Carpathia.png and Leakage_National Level Carpathia.shp", it has been confirmed that PP has furnished a detailed, step-by-step description. Notably, Section 3.2.3, which pertains to Activity Shifting Leakage and Market Leakage, has been revised in accordance with the steps outlined in Section 8.3 of VM0012 (v1.2). As a result, the identified issue has been successfully addressed, leading to its closure.

CL	17	Section no.	2.1.22, CCB 8	& VCS PD	Date: 10/09/2023
Description	n of CL				
overlapping conservatio national law scheme for	According to Section 2.1.22 of the CCB & VCS PD, PP has mentioned that "The rest of the overlapping sites are included as part of the eligible areas for the project considering that although conservation activities might be in place, these forests could still be harvested according to the national law. This involves the five Natura 2000 Sites in the project area, the national compensation scheme for type 2 forests (Compensation_T2), the compensation scheme silvo-mediu which is not part of the quiet zone (Silvo_mediu_Carpathia),"				
	larify how the or jical requirements		s will comply v	with the obje	ctive of the project and
Project par	ticipant respons	e			Date: DD/MM/YYYY
makes thes areas rema	e areas eligible fo	orm the method 0 years before	ology requireme the project start	ent that eligible date and area	policy, this condition then a areas should have been as that have the mandate
Documenta	ation provided by	y project partic	cipant		
CCB_VCS_ Eligibility_a Documenta	See the following documents: CCB_VCS_PD_Carpathia_V1.0_TRACK_CHANGES_Oct2023.docx Eligibility_analysis_2007_2022_Ca_RO01.shp (under Annex 1_List of Data and Supporting Documentation > G. Maps and Shapefiles with Geodetic Polygons > 26.06.2023_Eligible areas > 5_Eligible areas)				
VVB asses	ssment				Date: 10/10/2023
to harvestin the method	g under the nation ology requirement fore the project st	22_Ca_RO01.s nal policy. Cons t, as they fulfill t	equently, this control the criteria of being	ondition rende ing areas that	and shapefiles rlapping areas are subject ers these areas eligible for have remained as forests esting purposes.



Table 3.CAR from this validation

CAR	01	Section no.	2.1.1, CCB & VCS PD	Date: 10/09/2023
	ion of CAR			
of the releva	planned activ ant Gold Level	ities and the anticipate is missing.	ed outcomes that justify the	page, a concise description project's eligibility for each
forma 3. In acc	it, wherever ap	plicable. Section 2.1.1 of the CC		correct the Day-Month-Year uction v3, a brief description
	participant res			Date: 04/10/2023
			tivities and the anticipated	d outcomes that justify the
		ach relevant Gold Leve		
2. The da	ate format has	been updated to Day-	Month-Year format through	nout the PDD.
	ef description		es and conditions that ex	kisted before the project's
Docume	ntation provid	led by project partic	ipant	
	ollowing docur S_PD_Carpat		IANGES_Oct2023.docx	
VVB ass	sessment			Date: 10/10/2023
and fulfil accompli	led the specif		their respective sections,	prated the pertinent sections as per the request. This
CAR	02	Section no.	2.3.1, CCB & VCS PD	Date: 10/09/2023
	ion of CAR			
		CCB & VCS PD.	Standard (v4.4), PP shall	update the public comment
	participant res			Date: 04/10/2023
The CCB Following	& VCS PD ha VERRA's req	s been modified acco uirements the project		blic comment period from 03
		led by project partic		
		CS_PD_Carpathia_V hia Forest Carbon Pro	1.0_TRACK_CHANGES_C <u>pject Verra Site</u>	oct2023.docx
VVB ass	sessment			Date: 10/10/2023
https://reg public co	gistry.verra.org mment period,	a/app/projectDetail/VC	S/3280, affirms that the p st 3, 2023, to September 2	the Verra Search page project underwent a 30-day , 2023. Notably, there were



CAR	03	Section no.	3.1.4, CCB & VCS PD	Date: 10/09/2023		
	ription of CAR					
l.	Under Section 3.1 baseline scenario was used. See sec Demonstration and	and demonstrate a ption 3.5 for more de	additionality in A/R CDM pr etails" is incorrect. aseline scenario is not in co	combined tool to identify the oject activities (Version 01) mpliance with Section 6 and		
П.	Under Section 3.1		PD, identification of alternati	ive land use scenarios is not		
III.		11 Tool, Section 2.1 e baseline scenario		and Section 2.1.3 Sub-step		
IV.	Under Section 3.2	2 of the CCB VCS	PD, the mentioned Section	3.1.7 is missing.		
Projec	ct participant resp	onse		Date: 05/10/2023		
See se The P	ection 3.5 for more PP revised the Sec	details" is incorrect. tion 3.1.4 of the C		vities (Version 01) was used. the requirements from the ation.		
<i>applie</i> The P	d methodology VM PP revised the Sec	<i>0012 (v1.2).</i> tion 3.1.4 of the C		ance with Section 6 and 7 of the requirements from the ation.		
compli The Pl	iance with VT0001	instructions. on 3.1.5 of the CCB		land use scenarios is not in equirements from the VT001		
Select The Pl of the	III. According to VT001 Tool, Section 2.1.2 Outcome of Sub-step 1b and Section 2.1.3 Sub-step 1c. Selection of the baseline scenario is missing. The PP revised the Section 2.1.2 Outcome of Sub-step 1b and Section 2.1.3 Sub-step 1c. Selection of the baseline scenario and followed the requirements from the VT001 to be compliant with the VT001 instructions.					
	IV. Under Section 3.2.2 of the CCB VCS PD, the mentioned Section 3.1.7 is missing. The PP added the correct section number mentioned under the Section 3.2.2 of the CCB VCS PDD.					
	Documentation provided by project participant See document: CCB_VCS_PD_Carpathia_V1.0_TRACK_CHANGES_Oct2023.docx					
VVB	assessment			Date: DD/MM/YYYY		
VVB, I and fu accom	based on the revise ulfilled the specifie		their respective sections,	as per the request. This		
	103 00011 010300					



CCB & VCS VALIDATION REPORT:

CAR 04	Section no.	2.2.3, CCB & VCS PD	Date: 10/09/2023
Description of CAR			
not in compliance with sec benefits including climate, absence of the project, etc.)	ction G2(2) of the community and	e CCB Standard (v3.1), re	I biodiversity additionality are espectively. (for e.g., project d not have occurred in the
Project participant respon			Date: 04/10/2023
CCB & VCS PDD.			en added to the section 2.2.3
Documentation provided			
See document: CCB_VCS_	PD_Carpathia_\	/1.0_TRACK_CHANGES_0	Oct2023.docx
VVB assessment			Date: 10/10/2023
biodiversity additionality se definition that the primary conservation of the virgin Additionally, in terms of co awareness about forest co	eamlessly into the biodiversity bene- or quasi-virgin ommunity benefit nservation and en business, assis	ne relevant section. This efit of the Carpathia Fores mixed mountain forest s, FCC demonstrates a ro ecosystem services. The p st small-scale producers in	ntegrated the community and inclusion is evident in PP's at Carbon project lies in the in the Fagaras Mountains. obust commitment to raising project aims to foster a new formal registration, facilitate
CAR has been closed			
CAR 05	Section no.	CCB & VCS PD	Date: 10/09/2023
Description of CAR			Date: 10/03/2023
not exist for the grouped C project proponents could be	Carpathia Forest included in the f	Carbon Project due to the future".	specific scalability limit does assumption that additional
This does not comply with S Project participant respon		oothote 32 of the CCB Star	Date: 04/10/2023
A proper answer has been a	added to section ature of the Carp	oathia Forest Carbon Proje	
See document: CCB_VCS_			Oct2023 docx
			5012020.000
VVB assessment			Date: 10/10/2023
Carpathia Forest Carbon Pr	oject, no scalabil that align with the	lity limits have been establi e eligibility criteria for the ca	e conservation nature of the shed. As a group project, the rbon project is confirmed not s of the project.
CAR 06	Section no.	2.1.9, CCB & VCS PD	Date: 10/09/2023
Description of CAR			24101 10/00/2020
As required by Section 2.1.9	9 of CCB & VCS	PD template instructions, t	he following are missing:
Area where offset climate impacts are predicted.			
Areas where other stakeholders will be impacted.			
Areas where offsite			
	Sidure Sity IIIpe	uoto are predicted.	

• For grouped projects, specify potential project areas and communities that may join the project during the course of this crediting period.

Project participant response

Date: 04/10/2023

The information required has been added to the section 2.1.7 (project Zone Map) in the CCB & VCS PDD.

Documentation provided by project participant

See document: CCB_VCS_PD_Carpathia_V1.0_TRACK_CHANGES_Oct2023.docx

VVB assessment

Date: 10/10/2023

VVB, having examined the revised CCB & VCS PD, affirms that PP has inclusively provided details, accompanied by maps, outlining the areas where forest conservation will influence biodiversity dynamics in neighboring counties and potentially extend beyond the project zone. Additionally, it is confirmed that other stakeholders will be affected by the project. Furthermore, VVB acknowledges that FCC not only anticipates positive impacts on communities within the project area but also extends its vision to benefit communities both inside and beyond the project zone.

CAR	07	Cootion no		Dete: 10/00/0000			
-	07	Section no.	2.1.8, CCB & VCS PD	Date: 10/09/2023			
 Description of CAR 1. In line with section 3.11.5 & 3.15.5 of the VCS Standard (v4.4), identification, addressal and demonstration of no negative impacts are missing. 							
to local identifie property	2. In accordance with section 3.18.12 to 3.18.20 of VCS Standard (v4.4), explanation of the risks to local stakeholder resources due to project implementation and mitigation measures for such identified risks, including the plans to ensure the project will not impact local stakeholder's property rights without the free, prior and informed consent is missing. While doing so PP shall ensure compliance with all AFOLU safeguard requirements.						
Project part	icipant respons	е		Date: 04/10/2023			
impacts of th needed to ac The project hydrology wi	e project for the dress and mitiga area is not cor thin the project a I leakage has be	climate, commu ate these risks. nnected to adja rea.	nity and biodiversity ber icent areas that may h	the risks and potential negative nefits and outline the measures ave a negative impact on the in the CCB & VCS PD (please			
the cost, risk different stak and explain.	k, benefits and p ceholder identifie	otential negativ d by FCC. In th	e impacts of the carbon e same lines, the mitiga	B & VCS PD the explanation of n project was explained to the tion measures were presented			
rights are red to involuntary	cognized, respec / removal or relo	ted, and support	rted by FCC. Additional	demonstrates that all property ly, project activities do not lead eir lands or territories, and does or livelihood.			
Documentat	tion provided by	/ project partic	ipant				

See documents in:

<u>K. Stakeholder Meeting</u> (folder) under the 1. Annex 1_List of Data and Supporting Documentation <u>Proof of land title_purchase contracts</u> (folder) under the 1. Annex 1_List of Data and Supporting Documentation > C. Applicability Conditions

VVB assessment

Date: 10/10/2023

VVB, based on the review of the revised CCB & VCS PD and supporting documents "CCB_Socialization_Carpathia_RESULTS_Set2022 and Proof of land title_purchase contracts", confirms that PP has comprehensively presented relevant details pertaining to identified risks. Additionally, VVB confirms that the project area is not linked to adjacent areas that could negatively affect hydrology within the project area. Furthermore, VVB affirms that project activities do not result in the involuntary removal or relocation of property rights holders from their lands or territories. The supporting documents, as referenced by PP in the CCB & VCS PD, substantiate that the project activities do not compel rights holders to relocate activities crucial to their culture or livelihood.

CAR has been closed

CAR	CAR 08 Section no. 2.3, CCB & VCS PD)	Date: 10/09/2023		
Description	Description of CAR								
In accordan	ce with the	guidelines of	outlined	in Section	3.18.4 -	3.18.5	of VCS	Standard	(v4.4),

following details are missing:

- a) The mechanism for on-going communication with local stakeholders.
- b) How due account of all and any input received during the consultation has been taken.
- c) Include details on any updates to the project design or justify why updates are not appropriate.
- d) The project design and implementation, including the results of monitoring.
- e) The risks, costs and benefits the project may bring to local stakeholders.

Project participant response

Date: 05/10/2023

Section 2.3.8 (Continued Consultation and adaptive Management) in the CCB & VCS PD explains the on-going communication plan that FCC has to keep different stakeholders informed. The communication with the stakeholders happens in different levels (employees, interest groups and community outreach). For instance, newsletters are published with Carbon project information. These communication channels were discussed in the on-site visit with the VV.

During the consultations with different stakeholders, the input for the carbon project was positive, so far, see Section 2.3.7 (Stakeholder consultation). This input was collected throughout the consultations with stakeholders (employees, local halls and majors). So far, there has not been any updates to the project design.

The risks, costs, benefits and potential negative impacts were identified and presented in section 2.1.18 (risks to the project) please see this section in the CCB & VCS PD.

Documentation provided by project participant

See the following documents:

Folder 3. On-site Visit Documentation > Community Engagement > <u>Community Outreach</u> <u>Doc 10 Community Outreach Strategy 20180508.pptx</u> <u>Internal communication_plan_2018.xlsx</u>

Printed project newsletter (folder)

Stakeholder Presentation.pptx

VVB assessment

Date: 10/10/2023



VVB. based on the on-site inspection, revised CCB & VCS PD and supporting documents "Doc 10 Community Outreach Strategy 20180508.pptx, Internal communication plan 2018.xlsx, Printed project newsletter and Stakeholder Presentation.pptx" confirms that PP has adequately justified the finding. In particular, PP has demonstrated that FCC maintains an effective ongoing communication plan to keep diverse stakeholders informed. Notably, newsletters containing pertinent information about the Carbon project are regularly published. VVB also confirms that through the rangers, the Conservation Enterprise Manager, the Community Outreach and Communication Team, the Legal and Finance Teams, the Foresters, and the Biologists, the project receives valuable feedback and continuously learns about possible fears and concerns regarding the project activities. As of 2023, the first people hired by FCC within the community outreach department to keep a close contact to local communities in the project area and to continuously understand needs and necessities of locals in order to target our outreach and support programs on sectors such as social assistance, health, education, and sports. The positive input received during consultations with various stakeholders underscores the project's favorable reception. Moreover, the revised CCB & VCS PD provides a comprehensive presentation of the identified risks, costs, benefits, and potential negative impacts associated with the project.

CAR	09	Section no.	CCB & VCS PD	Date: 10/09/2023			
Description of CAR							
In line with the CCB & VCS PD, the project is a grouped project activity. However, the requirements of grouped project in various sections of the CCB & VCS PD are not in compliance with CCB & VCS template and VCS Standard (v4.4). (For e.g., eligibility criteria as per section 3.6.16, of the VCS standard, version 4.4 etc).							
While doing demonstrate		nce to requirer	ments G.1(13) of the	CCB Standard (v3.1), shall be			
Project par	ticipant respons	e		Date: 06/10/2023			
the VCS St	PP have already included in the CCB & VCS PD the eligibility criteria following the requirements from the VCS Standard (v4.4). Specifically, the CCB & VCS PD Section 2.1.22 outlines and lists the required criteria from VCS Standard (v4.4) Section 3.6.16.						
Documenta	tion provided by	y project partic	ipant				
See document: CCB_VCS_PD_Carpathia_V1.0_TRACK_CHANGES_Oct2023.docx							
VVB assessment Date: 10/10/2023							
VVB, based on the review of the revised CCB & VCS PD, confirms that PP has included eligibility criteria following the requirements from the VCS Standard (v4.4).							
CAR has been closed							

CAR	10	Section no.	2.2, CCB & VCS PD	Date: 10/09/2023				
Description of CAR								
As per Sec	ction 2.3.12 of the	CCB & VCS PD,	the record of FCC Grievance	es Mechanisms is missing.				
Project pa	articipant respor	nse		Date: 05/10/2023				
The FCC feedback and grievance Redress procedure is publicized and accessible through the FCC web page ⁵ . Additionally, FCC has implemented complaints and suggestions mailboxes in its offices in the HQ in Brasov and Rucar field office.								
FCC work	FCC works on 3 different levels in our communication with local stakeholders:							

⁵ <u>FCC Grievances Mechanims</u>

- People can (and do) contact FCC via its general email address (<u>info@carpathia.org</u>) or via facebook page. These requests come to the Operational Manager Rosana Cozma or to the communication team member Elena Marajineanu (facebook/instagram), who distribute them within 24h to the responsible person. Almost all requests are being answered within 48 hours. We also have a ranger Ioana Nicolae in the Rucar field office, who is available for local communities to answer any questions they might have.
- Additionally, FCC has a register of complaints and suggestions for visitors at our HQ in Brasov. Participation in meetings of interest groups, such as livestock owner associations, town hall meetings, meetings of local councils etc. Executed mainly by FCC's leading team (executive level, department leaders), but often also by its local rangers, who speak both in their role as local citizens as well as staff of FCC.
- Direct communication with KOL (key opinion leaders) in the local communities by the executive directors (at least 6 meetings per year) and as of 2023, we have the first people hired by FCC within the community outreach department to keep a close contact to local communities in the project area and to continuously understand needs and necessities of locals in order to target our outreach and support programmes on sectors such as social assistance, health, education, and sports.

Documentation provided by project participant

See documents under 1. Annex 1_List of Data and Supporting Documentation > K. Stakeholder Meeting > <u>Grievance Mechanisms</u>

FCC - Grievance and redress procedure.pdf

SOP Communication with Local Stakeholders_20230925.docx

Operational procedure for accessing and dealing with requests from the general public_EN.docx Operational procedure for accessing and dealing with requests from the general public_RO.docx Procedure for solving complaints_EN.docx Procedure for solving complaints RO.docx

VVB assessment

Date: 10/10/2023

VVB, after reviewing the justification and supporting documents "FCC - Grievance and redress procedure.pdf, SOP Communication with Local Stakeholders_20230925.docx, Operational procedure for accessing and dealing with requests from the general public_EN.docx, Operational procedure for accessing and dealing with requests from the general public_RO.docx, Procedure for solving complaints_EN.docx and Procedure for solving complaints_RO.docx", confirms that PP has furnished all pertinent records of the FCC Grievances Mechanisms. These mechanisms are openly publicized and accessible through the FCC webpage. Individuals have the means to contact FCC through its general email address (info@carpathia.org) or via the official Facebook page. Furthermore, FCC maintains a register of complaints and suggestions for visitors at its headquarters in Brasov. VVB also confirms that the direct communication with KOL (key opinion leaders) in the local communities by the executive directors (at least 6 meetings per year) and as of 2023, we have the first people hired by FCC within the community outreach department to keep a close contact to local communities in the project area and to continuously understand needs and necessities of locals in order to target our outreach and support programs on sectors such as social assistance, health, education, and sports.

CAR	11	Section no.	3.2, CCB & VCS PD	Date: 10/09/2023
Description	of CAR			

Information on all relevant equations, explanation and justification of relevant methodological choices (e.g., with respect to selection of emission factors and default values) are not provided in Section 3.2 of the CCB & VCS PD in line with the requirement of template instruction and 8.1.2 and 8.2 of the VM0012 (v1.2).

Project participant response

Date: 06/10/2023

The respective sections have now been revised. The sections now give stepwise outline of the performed calculations. It has now further been highlighted that a large proportion of the calculations in section 3.2. are performed internally in CBM-CFS based on the regionally calibrated parameters. It should here be noted, that CBM tracks carbon in all relevant pools described in IPCC GPG and VM0012 v1.2, except carbon HWP. Accordingly, carbon dynamics in HWP were calculated according to the methodology outlined in VM0012 v1.2.

Documentation provided by project participant

See document: CCB_VCS_PD_Carpathia_V1.0_TRACK_CHANGES_Oct2023.docx

VVB assessment

Date: 10/10/2023

VVB, based on the revised CCB & VCS PD, confirms that PP has revised the section now stepwise outlined with the performed calculations. VVB also confirms that CBM tracks carbon in all relevant pools described in IPCC GPG and VM0012 v1.2, except carbon HWP. CBM is a forest carbon modeling tool that utilizes forest inventory data, forest stand growth and yield data, and forest landscape disturbance history to estimate carbon dynamics across all required carbon pools. In the relevant section, PP has also provided the Listing of data used for the carbon modelling along with the Biomass Calculation Modelling which includes the FMP inventory data, FMP allowed harvest data, CBM-CFS3 model, EU CBM-CFS parameter database, Forest product conversion factor, etc.

CAR has been closed

CAR 12 Section no. Carbon Spreadsheet Date: 10/09/2023 Description of CAR

The results and certain values provided in Ex-ante carbon calculation sheet is hard-coded (for e.g tab_5. Summary carbon pool and ER, tab_CBM_Bsl_outputs, tab_CBM_prj_output, HWP_Bsl, HWP_Prj). This does not allow the readers to trace the underlined formulas and replication of the results.

Project participant response

Date: 06/10/2023

The hardcoded elements in the Ex-ante carbon calculation sheets are the results/outputs of the CBM carbon modeling. In the report, it has now been clarified which steps were performed by CBM (also part of CAR 11).

All inputs required to replicate the CBM carbon modelling have been provided (i.e., parameters database and CBM Standard Input Table). This allows for the replication of the result by third party entities. Any further post-processing steps (i.e., turning CBM outputs into estimated VCUs) have been coded in the excel workbook. Finally, the HWP carbon post-processing was performed in R (a programming language) following the methodology outlined in VM0012 v1.2. The R script has been made available to allow replication.

Documentation provided by project participant

See document:

CCB_VCS_PD_Carpathia_V1.0_TRACK_CHANGES_Oct2023.docx

See documents under 1. Annex 1_List of Data and Supporting Documentation > B. GHG Carbon Calculation > Supporting Material_Carbon Calculation > <u>HWP post-processing</u>

<u>HWP accounting.R</u> <u>Description for HWP accounting R script.docx</u>



CCB Version 3, VCS Version 3

VVB assessment

Date: 10/10/2023

VVB, based on the review of the revised CCB & VCS PD and supporting documents "HWP accounting.R and Description for HWP accounting R script.docx" confirms that PP has clarified which steps were performed by CBM in the report and the hardcoded elements in the Ex-ante carbon calculation sheets are the results/outputs of the CBM carbon modelling.

CAR	13	Section no.	3.3, CCB & VCS PD	Date: 10/09/2023			
Description							
			instruction and Section 9.				
			of measurement methods ar				
			n 3.3 of the CCB & VCS PD.				
	rticipant respons			Date: 06/10/2023			
The section	has been revised	d and all mention	ed data and parameters have	e been addressed.			
			s/carbon pools are tracked ir				
level, but of	nly reported on a	project-level by d	efault. This has been clarified	a in the revised section.			
Descussors							
	ation provided b			0000 da av			
See docum	ent: CCB_VCS_F	D_Carpathia_V	I.0_TRACK_CHANGES_Oct	2023.00CX			
VVB asses	semont			Date: 10/10/2023			
		inad CCP & VCS	C DD confirms that DD bas a				
			S PD, confirms that PP has e detailed descriptions and				
	sive approach lea			sound justifications. This			
comprehien	sive approach lea		or the maing.				
CAR has h	een closed						
UAR has b							
CAR	14	Section no.	3.1.2, CCB & VCS MR	Date: 10/09/2023			
Description							
		VCS PD, the Des	cription of measurement met	hods and procedures to be			
			Calculation method and Cor				
			nd Parameters Monitored is r				
			2. PP shall revise the section.				
Project par	rticipant respons	se		Date: 06/10/2023			
The section	s have been revis	sed.		÷			
1							
		n the revised sec	tion, that several steps the ca	alculations are performed			
Further it ha		n the revised sec	tion, that several steps the ca	alculations are performed			
internally in	CBM.			alculations are performed			
internally in Document	CBM. ation provided b	y project partici	pant				
internally in Document	CBM. ation provided b	y project partici					
internally in Documenta See docum	CBM. ation provided b ent: CCB_VCS_F	y project partici	pant	2023.docx			
internally in Documenta See docum	CBM. ation provided b ent: CCB_VCS_F ssment	y project partici PD_Carpathia_V1	pant I.0_TRACK_CHANGES_Oct	2023.docx Date: 10/10/2023			
internally in Documenta See docum VVB asses VVB, upon	CBM. ation provided b ent: CCB_VCS_F ssment reviewing the reviewing the	y project partici PD_Carpathia_V1 vised CCB & VC	pant I.0_TRACK_CHANGES_Oct	2023.docx Date: 10/10/2023 s effectively addressed the			
internally in Documenta See docum VVB asses VVB, upon measurement	CBM. ation provided b ent: CCB_VCS_F ssment reviewing the re- ent methods and	y project partici D_Carpathia_V1 vised CCB & VC procedures to be	pant I.0_TRACK_CHANGES_Oct CS PD, confirms that PP has applied, QA/QC procedures	2023.docx Date: 10/10/2023 s effectively addressed the s to be applied, calculation			
internally in Documenta See docum VVB asses VVB, upon measurement	CBM. ation provided b ent: CCB_VCS_F ssment reviewing the re- ent methods and	y project partici D_Carpathia_V1 vised CCB & VC procedures to be	pant I.0_TRACK_CHANGES_Oct	2023.docx Date: 10/10/2023 s effectively addressed the s to be applied, calculation			
internally in Documenta See docum VVB asses VVB, upon measurement method and	CBM. ation provided b ent: CCB_VCS_F ssment reviewing the re- ent methods and d comments. This	y project partici D_Carpathia_V1 vised CCB & VC procedures to be	pant I.0_TRACK_CHANGES_Oct CS PD, confirms that PP has applied, QA/QC procedures	2023.docx Date: 10/10/2023 s effectively addressed the s to be applied, calculation			
internally in Documenta See docum VVB asses VVB, upon measurement method and	CBM. ation provided b ent: CCB_VCS_F ssment reviewing the re- ent methods and	y project partici D_Carpathia_V1 vised CCB & VC procedures to be	pant I.0_TRACK_CHANGES_Oct CS PD, confirms that PP has applied, QA/QC procedures	2023.docx Date: 10/10/2023 s effectively addressed the s to be applied, calculation			
internally in Documenta See docum VVB asses VVB, upon measurement method and CAR has b	CBM. ation provided b ent: CCB_VCS_F ssment reviewing the re- ent methods and d comments. This een closed	y project partici PD_Carpathia_V1 vised CCB & VC procedures to be comprehensive a	pant I.0_TRACK_CHANGES_Oct CS PD, confirms that PP has applied, QA/QC procedures approach leads to the closure	2023.docx Date: 10/10/2023 s effectively addressed the s to be applied, calculation e of the finding.			
internally in Documenta See docum VVB asses VVB, upon measurement method and	CBM. ation provided b ent: CCB_VCS_F ssment reviewing the re- ent methods and d comments. This een closed 15	y project partici D_Carpathia_V1 vised CCB & VC procedures to be	pant I.0_TRACK_CHANGES_Oct CS PD, confirms that PP has applied, QA/QC procedures	2023.docx Date: 10/10/2023 s effectively addressed the s to be applied, calculation			

BStandards

CCB Version 3, VCS Version 3

In-compliance with Section 9.1 of the CCB & VCS PD, the following Data and Parameters Available at Validation is missing: ftransportk, Charvest, Cmanufacturek, Ctransportk, dtransportk, Cemittransport, Gag,I,t, G bg,I,t, LBLnaturali,t, LBL fellingsi,t, LBLotheri,t, LBi,t, f bsl,damage,I,t, ΔC emitfossil,t, C emittransport,t, C emittransport,t, LEy, SEy, MLFy, BC hv, n, AC hv, n, ER y, VCU y, EM, EI, EP, ER y, eRR, BRy.

Project participant response

Date: 06/10/2023

The section has been revised and all mentioned data and parameters have been addressed.

It should be noted, that several of the variables/carbon pools are tracked internally on a polygon level, but only reported on a project-level by default. This has been clarified in the revised section.

Documentation provided by project participant

See document: CCB_VCS_PD_Carpathia_V1.0_TRACK_CHANGES_Oct2023.docx

VVB assessment

Date: 10/10/2023

VVB, based on the revised CCB & VCS PD, confirms that PP has addressed all the mentioned data and parameters as per Section 9.1 and 9.2 of the VM0012 v(1.2) along with proper description, justification and comments as required.

CAR has been closed

CAR16Section no.3.1.3, CCB & VCS MRDate: 10/09/2023Description of CARThe Data and Parameters Monitored mentioned in the CCB & VCS PD & MR Section 3.1.2 is not incompliance with the Section 9.2 of the VM0012 (v1.2). PP is requested to rectify this.

Project participant response

Date: 06/10/2023

Sections 3.3.1 and 3.3.2 have been revised.

Further, it has been clarified if CBM default values are used for the carbon calculations. These values can be considered peer-review literature values. The CBM parameter database is maintained and kept updated by the Joint Research Center of the European Union.

Documentation provided by project participant

See document: CCB_VCS_PD_Carpathia_V1.0_TRACK_CHANGES_Oct2023.docx

VVB assessment

Date: 10/10/2023

VVB, based on the revised CCB & VCS PD, confirms that PP has mentioned all the mentioned data and parameters as per section 9.2 of the VM0012 v(1.2) along with proper description, measurement procedures as required.

CAR has been closed

CAR	17	Section no.	CCB & VCS PD	Date: 29/09/2023
Description	of CAR			

Project proponent has used Carbon Budget Model of the Canadian Forest Service (CBM), for the quantification of Baseline and project emission. Although, the use of the model is allowed as per the applied methodology (VM0012,version 01.2) and the selected model(s) to the particular project application has deemed appropriate by the VVB during the on-site inspection, the following is missing as required by the methodology:

A listing and explanation of all input data, output data, and model parameters/assumptions

Furthermore, Project proponent has not accounted for mortality due to natural disturbance agents that are regionally appropriate. The applied methodology requires adjustments to be made by project



proponents to account for these factors if they are not well represented. Rationale must be provided when making adjustments. **Project participant response** Date: 06/10/2023 All datasets and parameters sets have now been listed in section 3.2.1. Mortality assumptions and rates underlying the CBM model have been clarified. Further a justification for the selected mortality rates is given. Specifically, it is argued that the 5% generic mortality rate assumed in the CBM simulations is appropriate to reflect both mortality from self-thinning and natural disturbances in the project region based on available data and reports. The following additions have be made in the revised report: "The model applies a generic mortality rate of 5%. This mortality rate covers both self-thinning and mortality from small-scale natural disturbances, such as the death of individual trees from windthrown or pest attacks. Large-scale mortality due to other disturbance events (e.g. management related mortality or large-scale/landscape-scale natural disturbances) need to be defined by the user. In Central East Europe (to which Romania belongs), less than 3% of the forest area is considered "damaged" by natural disturbances such as forest fires, pests, or storm damage^[1]. As this damaged area is the product of multiple years of disturbances, the annual mortality disturbances can be assumed to be (far) below 3% at a landscape level. Accordingly, the generic 5% mortality considered in CBM appropriately cover disturbance related mortality. " The choice of mortality rate is now further justified in the report: "11 2.4% damaged forest area (0.9% by pests, 0.3% by wildlife, 0.1% by fires, and 0.7% by wind and snow) is reported in "State of Europe's Forests 2020" (FOREST EUROPE, 2020). Regional peer-reviewed studies and official reports confirm a low disturbance related mortality in the project region (i.e., Romania) compared to other regions in Europe, especially North and West Europe (EFFIS, 2023; Forzieri et al., 2020; Hlásny et al., 2021). EFFIS. (2023). EFFIS Estimates for European Union. https://effis.jrc.ec.europa.eu/apps/effis.statistics/estimates Forzieri, G., Pecchi, M., Girardello, M., Mauri, A., Klaus, M., Nikolov, C., Rüetschi, M., Gardiner, B., Tomastik, J., Small, D., Nistor, C., Jonikavicius, D., Spinoni, J., Feyen, L., Giannetti, F., Comino, R., Wolynski, A., Pirotti, F., Maistrelli, F., ... Beck, P. S. A. (2020). A spatially explicit database of wind disturbances in European forests over the period 2000-2018. Earth System Science Data, 12(1), 257–276. https://doi.org/10.5194/essd-12-257-2020 Hlásny, T., König, L., Krokene, P., Lindner, M., Montagné-Huck, C., Müller, J., Qin, H., Raffa, K. F., Schelhaas, M.-J., Svoboda, M., Viiri, H., & Seidl, R. (2021). Bark Beetle Outbreaks in Europe: State of Knowledge and Ways Forward for Management. Current Forestry Reports. https://doi.org/10.1007/s40725-021-00142-x/Published" Documentation provided by project participant

See document: CCB_VCS_PD_Carpathia_V1.0_TRACK_CHANGES_Oct2023.docx

VVB assessment

Date: 10/10/2023



VVB, based on the revised CCB & VCS PD, confirms that PP has comprehensively incorporated all datasets and parameter sets in section 3.2.1. This section outlines the input data derived from existing datasets and sources, as well as the output data generated from intermediate modeling steps and calculations. These outputs are utilized in subsequent modeling steps, and some are directly involved in emission reductions and VCU calculations.

Additionally, VVB affirms that the model employs a standardized mortality rate of 5%. This rate encompasses both self-thinning and mortality resulting from minor natural disturbances. Notably, in Central East Europe, including Romania, less than 3% of the forest area is classified as "damaged" due to natural disturbances like forest fires, pests, or storm damage. VVB has also validated the same through review of literatures such as https://effis.jrc.ec.europa.eu/apps/effis.statistics/estimates, https://effis.jrc.ec.europa.eu/apps/effis.statistics/estimates, https://doi.org/10.1007/s40725-021-00142-x/Published. Hence, the finding has been closed.



APPENDIX 3: CERTIFICATE OF COMPETENCY

		Carbo — CHECK	on	
Carbo	on Check	(India) P	rivate	Limited
	Certificat	e of Com	petenc	y
	Mr.	Amit Ana	nd	
				ance with the requirement pplicable GHG programs:
	for the followi	ng functions and requ	iirements:	
⊠ Validator	⊠ Verifier	🛛 Team Leade	r	🛛 Technical Expert
🛛 Technical Reviewer	🗆 Health Expert	🗆 Gender Exp	ert	🛛 Plastic Waste Expert
⊠ SDG+	🛛 Social no-harm(S	i+) 🛛 Environmer	nt no-harm(E+)	⊠ CCB Expert
🛛 Financial Expert	□ Local Expert for I	ndia and South Afr	ica	
	in the fo	bllowing Technical Are	eas:	
🛛 TA 1.1	🖾 TA 1.2	🗆 TA 2.1	🛛 TA 3.1	🗆 TA 4.1
🗆 TA 4. n	🗆 TA 5.1	🗆 TA 5.2	🖾 TA 7.1	🖾 TA 8.1
🗆 TA 9.1	🗆 TA 9.2	🗆 TA 10.1	🛛 TA 13.1	🖾 TA 13.2
🛛 TA 14.1	🛛 TA 15.1			
lssue	Date		Expi	ry Date
1 st Janua		31 st Dece	ember 2023	
		Jivash D. S.S.		
		ikash Kumar Singh mpliance Officer		
CIPL_FM 7.9 Certificate of Competen				





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:

Technical Reviewer	🗆 Health Expert	🗌 Gender Ex	pert	🗆 Plastic Waste Exper	
□ SDG+	□ Social no-harm(S+)			CCB Expert	
🗆 Financial Expert	⊠ Local Expert for Inc	lia			
in the following Technical Areas:					
🗆 TA 1.1	🗆 TA 1.2	🗆 TA 2.1	🗆 TA 3.1	🗆 TA 4.1	
🗆 TA 4. n	🗆 TA 5.1	🗆 TA 5.2	🗆 TA 7.1	🗆 TA 8.1	
🗆 TA 9.1	🗆 TA 9.2	🗆 TA 10.1	🗆 TA 13.1	□ TA 13.2	
🛛 TA 14.1	🗆 TA 15.1				
Issue	Date		Expiry	/ Date	
1 st Janua	ary 2023		31⁵t Decer		
Linst L.	S.S		1.	مرملته	
Mr. Vikash Kumar Singh Compliance Officer			Mr. Ami Cl	t Anand O	
IPL_FM 7.9 Certificate of Competenc					





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:

🛛 Validator	⊠ Verifier	🛛 Team Leade	r	I Technical Expert		
🛛 Technical Reviewer	🗆 Health Expert	🗆 Gender Exp	ert	🛛 Plastic Waste Expert		
⊠ SDG+	⊠ Social no-harm(S+)	⊠ Environment no-harm(E+)		🛛 CCB Expert		
🛛 Financial Expert	🛛 Local Expert for Ind	ia, South Africa, a	and Spanish spe	aking countries		
in the following Technical Areas:						
🛛 TA 1.1	🖾 TA 1.2	🗆 TA 2.1	🖾 TA 3.1	🖾 TA 4.1		
🖾 TA 4. n	🗆 TA 5.1	🗆 TA 5.2	🖾 TA 7.1	🗆 TA 8.1		
🗆 TA 9.1	🛛 ТА 9.2	🗆 TA 10.1	🛛 TA 13.1	🖾 TA 13.2		
🛛 TA 14.1	🛛 TA 15.1					
lssue	Date		Expiry	Date		
1 st Janu	ary 2023	31 st December 2023				
Mr. Amit Anand CEO						