Gold Standard Performance Certification Report

OF

"WithOneSeed Community Forestry Program"

IN

Timor-Leste

Gold Standard Registry ID: GS4210

Methodology: Gold Standard Afforestation/Reforestation (A/R) GHG Emissions Reduction & Sequestration Methodology (Version 1.0)

Monitoring Period: 01/04/2021 to 30/11/2023 (FIRST AND LAST DAYS INCLUDED)

Report No: CCIPL1481 (A)/GS/VAL-VER/RMWT/20220808

Revision number: 03

Report Date: 11/03/2024

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I. PROJECT DATA

Project title:	WithOneSeed Community Forestry Program (GS4210)		
Project Areas:	Sub-district of Baguia, Municipality of Baucau, Timor-Leste.		
Host Country	Timor-Leste		
Registration No. / Date:	GS4210 12/02/2020	**Scale:**	Micro
Monitoring period:	01/04/2021 to 30/11/2023 (including both the dates)	**Monitoring Period Number:**	4th
Methodology:	Gold Standard Afforestation/Reforestation (A/R) GHG Emissions Reduction & Sequestration Methodology (Version 1.0)	**Sectoral Scope/Technical Area:**	14/14.1
Initial Monitoring Report:	Version 1.1; Dated: 22/12/2023		
Final Monitoring Report:	Version 1.6; Dated: 10/03/2024		

Total GHG removals (tCO_2e):

Year	Achieved (tCO_2e)
01/04/2021 – 31/12/2021	5,684
01/01/2022 – 31/12/2022	29,790
01/01/2023 – 30/11/2023	34,331
Total	**69,804**
Deduction for overestimation in 2021 audit	15,641
Total After Deduction	54,164
Verified/ ex-post CO_2 fixation (After 20% buffer)	**43,331**

GHG removal measures:

GHG (CO_2) emission removals through reforestation with 75% native and 25% naturalised tree species: *Swietenia macrophylla* (Mahogany), *Eucalyptus urophylla* (Mountain Gum), *Tectona grandis* (Teak), *Casuarina equisetifolia* (Sheoak), *Dalbergia nigra* (Rosewood), *Santalum album* (Sandalwood), *Sterculia foetida* (Wild almond) and *Toona ciliata* (Red Cedar).

During on-site verification/i-xxxi/ of the designated project site it has been confirmed that during reported monitoring period (01/04/2021 to 30/11/2023), the above-mentioned species have been planted in the project area. VVB has further performed an independent web-search/reference of literature/19/ or website reviewed / to cross-verify that the species planted are native to the project region and will have net positive impact in and/or around the region. VVB, furthermore based on the revised PDD/01/, KMLs and remote sensing GIS shapefiles/13/ verifired that the stakeholder and community consultation has not identified High Conservation Value ecosystems, habitats, landscapes, or biodiversity areas. The program operates on private farmland only.

Party	Project participants	Party considered a project participant	Contract party
Timor Leste (Host)	xpand Foundation Australia Ltd	Yes	☒

II. VERIFICATION TEAM

Verification Team			Role									
Full name	Affiliation	Appointed for Sectoral Scopes (Technical Areas)	Team leader	Acting/trainee Team Leader	Local Expert	Team Member (Auditor)	Technical Expert	Acting/Trainee Tech. Expert	Trainee Auditor	Technical Reviewer	Expert to TR	Trainee TR
Ahalee Bhowmik	India	14.1	X				X					
Maniruddin Dhabak	India	14.1				X						
Ilidio Nelson Belarmino	Timor Leste	--			X							
Vikash Kumar Singh	India	1.1, 1.2, 3.1,4.1,7.1, 13.1, 13.2, 14.1, 15					X			X		

Audit Team Experience:
The team composition is linked to the methodology and local experience in the host country.

Ahalee Bhowmik: Ahalee Bhowmik is a qualified lead assessor and technical expert at CCIPL. She 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.

Maniruddin Dhabak: Maniruddin has done a master's degree in Botany, and he had experience in areas such as Mangrove afforestation, urban afforestation, IUCN Red list Assessment, and taxonomic research. He is a assessor for TA 14.1 projects.

Local expert: Ms. Ilidio Nelson Belarmino is the local expert of Timor Leste.

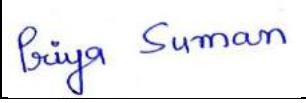
Vikash Kumar Singh: Vikash Kumar Singh is a qualified lead assessor and internal technical reviewer for validations and verifications GHG mitigation projects under CDM, GS and Gold Standard (GS) and actively been involved in the validation and verification and internal technical review GHG mitigation 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. 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 GS, CDM and GS projects globally. Vikash has extensive work experience on working in GS, CDM and GS projects in East Africa, as well as Central America.

III. VERIFICATION REPORT

Status	Verification Phases
☒	Desk Review
☒	On Site Assessment
☒	Follow up interviews
☒	Corrective Actions / Clarifications Requested
☒	Resolution of outstanding issues
☒	Full Approval and Submission for Issuance
☐	Rejected

Status	Distribution Conditions
☒	No distribution without permission from the Client or responsible organizational unit
☐	Limited Distribution
☐	Unrestricted distribution

Final Approval	
Date	11/03/2024
Approved by	Priya Suman
Designation	Compliance Officer
Signature	

ABBREVIATIONS

AGB	Above Ground Biomass
AQL	Acceptable Quality Limit
AFOLU	Agriculture, Forestry and other Land Use
ARR	Afforestation, Reforestation and Revegetation
BEF	Biomass Expansion Factor
BGB	Below Ground Biomass
CAR	Corrective Action Request
CCIPL	Carbon Check (India) Private Ltd.
CO_2e	Carbon Dioxide Equivalent
CL	Clarification Request
DBH	Diameter at breast height
DNHA	Do No Harm Assessment
DPCR	Draft Performance Certification Report
DW	Dead Wood
GIS	Geographical Information System
KML	Keyhole Markup Language[1]
LTA	Long-term Average
LULC	Land Use Land Cover
LULUCF	Land use, Land-use Change, and Forestry
DR	Document review
DVR	Draft Verification Report
EI	External Individual
FA	Final Approval

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

FAR	Forward Action Request
FPCR	Final Performance Certification Report
GHG	Greenhouse gas(es)
IPCC	Intergovernmental Panel on Climate Change
IR	Internal resource
KPI	Key Project Information
MP	Monitoring Period
MR	Monitoring Report
MUs	Modelling Units
PD	Project Developer
QC/QA	Quality control /Quality assurance
SOC	Soil Organic Carbon
TA	Technical Area
TR	Technical Review/ Reviewer
UQL	Unacceptable Quality Limit
VVB	Validation & Verification Body

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1. Introduction

The Project Developer (PD), "*xpand Foundation Australia Ltd*" has appointed the *Carbon Check (India) Private Ltd. (CCIPL)*, a GS certified VVB to perform forth (4th) performance certification of the GS project titled "WithOneSeed Community Forestry Program" (GS4210) in non-Annex 1 host country of Timor Leste (hereafter referred to as "project activity" and/or project).

The purpose of this report is to document the compliance of the proposed GS project "WithOneSeed Community Forestry Program" (hereafter referred to as "project") with the requirements of the GS4GG/B01/ and the applied Gold Standard Methodology Afforestation/Reforestation (A/R) GHG Emissions Reduction & Sequestration Methodology (Version 1.0)/B02/B03/, GS4GG Principles & requirements v1.2/B02/, GS4GG LUF activity requirements v1.2.1/B01/ and subsequent decisions by the Gold Standard Secretariat.
Further VVB, has provided a set of criteria under section 1.2 of this report to deliver consistent information on project operations, monitoring and reporting and compliance with host country criteria and Gold Standard specific principles.

The verification objective of the project includes:

- ✓ Assessment of compliance with the GS4GG rules and requirements/B01/.
- ✓ Assessment of compliance with the applied GS Afforestation/Reforestation (A/R) GHG Emissions Reduction & Sequestration Methodology (Version 1.0)/B03/.
- ✓ Assessment of project compliance with the relevant rules including host country legislation

This report contains the findings and resolutions from performance certification and a certification opinion on verified GHG removals accrued during this monitoring period due to implementation of the project.

1.1 Objective

Verification is the periodic independent review and ex-post determination of both quantitative and qualitative information by a Validation & Verification Body (VVB) of the monitored GHG removals achieved as a result of the implementation and monitoring of the registered GS A/R project activity during a defined monitoring period.

Certification is the written assurance by a VVB that, during a specific period reported monitoring period, a project activity achieved the GHG removals as verified.

The objective of this verification is to verify and certify GHG removals and emissions as reported for the project activity titled "**WithOneSeed Community Forestry Program**" for the period 01/04/2021 to 30/11/2023 (including both the dates).

The purpose of this verification is to perform review of the monitoring results and verify that the monitoring methodology has been implemented in accordance with the monitoring plan and monitoring data and used to confirm the net GHG removals, is sufficient, definitive and presented in a concise and transparent manner. Other non-GHG parameters shall also be assessed as per the requirement of Gold Standard/B01/.

1.2 Scope and Criteria

The scope of the **performance certification** is:

- To verify the project implementation and operation with respect to the registered PDD.

- To verify the implemented monitoring plan with the registered PDD and applied Afforestation/Reforestation (A/R) Requirements (Version 0.9) and AR LUF-Activity Requirements v1.2.1/B01/.
- To verify that the actual monitoring systems and procedures are in accordance with the monitoring systems and procedures described in the registered monitoring plan.
- To evaluate the GHG removal data and conclude with a reasonable level of assurance whether the reported quantity of GHG removal is free from material misstatement or not; and
- To verify that reported GHG emission removal data is sufficiently supported with requisite evidence and/or information.

The verification shall ensure that the reported net GHG removals and emissions are complete and accurate in order to be certified.

CCIPL's scope of verification as a third-party verifier is to verify project's GHG removals and sustainable development impacts against the requirements set out by the Gold Standard. The verification shall ensure that the reported net GHG removals and emissions are complete and accurate in order to be certified.

The verification comprises a review of the KPI/01/ for the reported monitoring period starting from 01/04/2021 - 30/11/2023 and based on the registered PDD, in part of the monitoring parameters and monitoring plan, GHG removal calculation spreadsheet/04/, monitoring methodology/03/ and all related evidence provided by the PD.

During 12th January to 16th January 2024 an onsite visit as physical verification of the project site and interviews with stakeholder's and/or representative of project developer have been carried out by CCIPL team as part of the verification process.

1.3 Level of Assurance

In line with GS: AR_LUF_Risks-Capacities-Guideline v1.0/B01/, VVB has followed a risk-based assessment approach based on review of the project description/01/, to evaluate correctness, completeness, and consistency of the data reported. An evidence-gathering plan has been developed to assess and mitigate any risk associated with description and justification for the project particulars. VVB has also evaluated and cross-checked the uncertainty analysis performed by the PD for addressing any sample errors, measurement error of model inputs and model prediction error, and estimation of project area.

During the on-site interviews/i-xxxi/, VVB conducted a thorough examination of the monitoring system selected by the Project Developer, namely the Tree O2 application. In order to assess the suitability of the monitoring system, VVB employed a two-pronged approach:

- Cross-checking the appropriateness of the technology and competence of MRV personnels/20/ using the technology.

- Cross-checking the appropriateness of the monitored values derived from the system/05/ and the appropriateness of the ground truthing exercise collaborated by MRV personnels/20/ for sample plots.

For bullet 1, VVB undertook a comprehensive review of the SOP/20/ documentation pertaining to the monitoring system, evaluating the standardized monitoring processes facilitated by the Tree O2 application/05/. Subsequently, VVB scrutinized the competency certificates of the MRV personnel/20/ engaged in this standardized monitoring. Further validation occurred through on-site interviews/i-xxxi/ conducted during the inspection. The assessment outcomes are as follows:

✓ The technology of the monitoring system i.e., Tree O2 application/05//07/ is deemed to be appropriate.
✓ VVB, further confirms the appropriateness of the SOP/20/ used for using this monitoring system.

- ✓ Adding further, the MRV personnels[/20/] were found competent and VVB confirms that they can appropriately apply this standardized process to yield the monitoring results.
- ✓ In addition to above, VVB has cross-checked the raw data[/05//07/] of following parameters and compared it by performing few witnesses' measurement of sample plots by using acceptance sampling:

  i) Tree Height
  ii) Diameter at Breast Height
  iii) Number of trees

Based on the observations made during the on-site inspection[/i-xxxi/], VVB affirms that the monitoring approach employed by the Project Developer, utilizing the Tree O2 application, has been determined to be accurate and suitable. This conclusion was further verified through a ground truthing exercise carried out by the VV team during the on-site inspection[/i-xxxi/]. A comparative analysis of both sets of results, namely the raw data used in carbon calculation and the outcomes of the on-site witness[/i-xxxi/] performance, revealed a high degree of similarity, with negligible or no discernible variation.

Based on the audit findings, a positive evaluation statement reasonably assures that the project GHG assertion is materially correct and is a fair representation of the GHG data and information. However, based on the assessment above, sectoral expertise and review of removal rate of project, VVB concludes that the allometric equation[/19/] applied is appropriate and the carbon calculation from the project yields a plausible value and thus acceptable to the VVB.

The project verification has been conducted to provide a reasonable level of assurance of conformance against the defined audit criteria and materiality thresholds within the audit scope. Based on the audit findings, a positive evaluation statement reasonably assures that the project GHG assertion is materially correct and is a fair representation of the GHG data and information. The documents reviewed are listed under section 2.1 of this report.

Based on the assessment of project particulars and the information/evidence (presented by project developer) against the applicable version of the relevant GS guidance document[/B01-B04/], VVB have raised a total of Nineteen (19) findings including: Seven (07) CARs and Eleven (11) CLs and have satisfactorily closed. One (01) FAR has been raised which will be evaluated in the next periodic verification.

VVB confirms that the GHG mitigations and/or GHG emission removals from the project have been accounted correctly and are complying with the baseline methodology[/B03/].

2. Methodology

The performance certification consists of the following four phases:

1. Completeness check of the Gold Standard Sustainability Monitoring Report.
2. Review of project documentation (registered monitoring plan, applied methodology, project design document, applicable tools in particular attention to the frequency of measurements, QA/QC procedures and other relevant documents and regulations).
3. On-site visit (including follow-up interviews with project stakeholders, when deemed necessary). The on-site visit and interviews assessment include the following:
   - An assessment of implementation and operation of project activity with respect to registered PDD / KPI.
   - Review of information flows for generating, aggregating and reporting the monitoring parameters.
   - Interview[/i-xxxi/] with relevant personnel to determine whether the operational and data collection procedures are implemented and in accordance with monitoring plan of the PDD.
   - Cross check of information and data provided in the KPI with inventories, PD sampling records and GHG removal calculation sheet.
   - Review of assumptions made in calculating the GHG removals.
   - Implementation of QA/QC procedure in-line with the DDP and methodology requirement.

4. Resolution of outstanding issues and the issuance of the final Verification report and Certification statement.

The following sections outline each step in more detail.

Duration of Audit:

- Signing of Letter of Engagement: 06/10/2023
- Submission of requisite documents to the VVB: 22/12/2023
- Onsite Audit: 12th January 2024 – 16th January 2024
- Submission of DVR to client along with audit findings: 16th January 2024

2.1 Desk Review

The following table outlines the documentation reviewed during the new area and performance certification:

S.No.	Documents	References
/01/	**GS4210 T-PreReview_V1.3-Project-Design-Document_HMI 2023.docx**	Version 1.4: 05/02/2024
/02/	**clean_GS4210 T-Monitoring-Report March 2024**	Version 1.1: 14/10/2020 Version 1.2: 09/01/2023 Version 1.3: 05/02/2023 Version 1.4: 15/02/2023 Version 1.5: 06/03/2024 Version 1.6: 10/03/2024
/03/	Filled-in and updated GS templates (CO_2 fixation, other emissions, and forest inventory) as per 403_V2.0_LUF_AR-Methodology-GHGs-emission-reduction-and-Sequestration-Methodology	
/04/	GS4210 WOS Baguia CO2 Certificate Calculations_Feb 2024	Carbon calculations Ex-post
/05/	• HMI Forest inventory process + Tetun_2023.docx • GS4210 GHG Accounting and Monitoring Guide_Jan 2024.docx	Inventory & Tree O2 mechanism
/06/	• 401.13-AR-T-Baseline December 2023.docx • CSIRO_Timor-Leste_Forest_Monitoring_2021_v2.pdf • Global_land_use_land_cover_with_Sentinel_2_and_deep_learning.pdf • 201-LUF-T-AR-Additionality December 2023.docx	Baseline & additionality
/07/	• AR-Soil-Carbon-Tool.xlsx • Baguia 2023 tree count raw data - 406,071 total trees.xlsx • Casuarina data.xlsx • Confirmed Tree Count for Farmer Payment.xlsx • Eucalyptus data.xlsx • Growth Model & Planted Trees 2023_File Calculation Log.docx • GS4210 Baguia 2023 tree data by species_Jan 2024.xlsx • GS4210 Growth Model to Dec 2023_updated Jan 2024.xlsx • Mahogany data.xlsx	Project Database Excel Sheet

	• Red cedar data.xlsx • Rosewood data.xlsx • Sandalwood data.xlsx • Teak data.xlsx • Wild almond data.xlsx	
/08/	T-PerfCert_V1.1-Annual-Report_WOS_2023 (1).docx	Annual Report
/09/	• 401.13-AR-T-Applicability Dec 2023.docx • Alaua craic.jpg • Alaua craic 3.jpg • Alaua craic2.jpg • Bubuha.jpg • Bubuha2.jpg • Samalari.jpg • Timor Leste - Map of Soil Texture.png • Timor leste rainfall map.png • Wetland Photo GPS data.csv • Wetland Photos GPS.txt	Applicability
/10/	401.13-AR-T-CO2-Fixation Dec 2023.docx	Co2 Fixation
/11/	[ORIGINAL] T-PreReview_V1.1-Cover-Letter (1).docx	Cover Letter
/12/	**FAR 1:** 1. #Folder_Afalocai 1 2. #Folder_Afalocai 2 3. #Folder_Alaua-Craic 1 4. #Folder_Alaua-Craic 2 Lino Guterres 5. #Folder_Baguia villa 1 House 6. #Folder_Baguia Villa 2 Emilio 7. #Folder_Gold Standard locations 8. #Folder_Osso Huna 1 9. #Folder_Osso Huna 2 Stree 10. Copy of Report of FAR 1 locations from Deviation Request.docx **FAR 2:** 1. #Folder_Afalocai 1 2. #Folder_Afalocai 2 3. #Folder_Alaua-Craic 1 4. #Folder_Baguia Villa 2 Emilio **FAR 3:** 1. #Folder_Alaua-Craic 2 Lino Guterres	FARs from previous verification
/13/	**GIS KML:** 1. Folder_Baguia Shapefiles 2. Folder_Cumulative EPA files 3. Folder_Tree Data Cumulative, Dissolved and or Buffered 4. Baucau LandUse Map.jpeg 5. KPI Annex 2023.docx 6. Cumulative EPA files 7. Tree Data Cumulative, Dissolved and or Buffered 8. Census Layers.kml	KML & Shapefiles
/14/	• Input and grievance.docx • Grievance Doc Monitoring Period 4- 2024.docx.docx • Scanned copy of logbook.pdf	Grievance Mechanism
/15/	401.13-AR-T-Leakage December 2023.docx	Leakage
/16/	• hmi constitution (1).pdf • hmi doj doc.pdf • Ho Musan Ida Official Gazette Publication 18102019.pdf • MOU DRTL_xPF.pdf	Organizational documents

	• Registration Ho Musan Ida.pdf • TreeO2 - Business Planning Report FINAL (excl. appendices)-compressed (4).pdf • WOS Business Plan 2016-2021-FINALpdf.pdf • WOS Business Plan Oct 2019-2025 FINAL.pdf	
/17/	401.13-AR-T-Other-Emissions December 2023.docx	Other Emission
/18/	3.6 - Template - Risk Register PFA Review May 2021 (1).pdf	Risk & Capacities
/19/	• **Files for 3.4 Do No Harm** ✓ ACIAR_West Timor_agro-forestry.pdf ✓ FAO (2001) Forest Plantation MAI data.pdf ✓ FSC Invasive_Species_Supporting_Document_to_IPM Guide.pdf ✓ Haysom and Murphy (2003) FAO Invasive Forest Tree Species.pdf ✓ HDSA (1998) Records of Biological Survey Hawaii.pdf ✓ Henriques and Narsico 2010.pdf ✓ Henriques et al (2011) Teak in Agroforestry Timor Leste.pdf ✓ High Conservation Value.docx ✓ IUCN Guidelines_Prevention of Biodiversity Loss caused by Alien Invasive Species.pdf ✓ Krisnawati1104 Mahogany Growth Rates Indonesia.pdf ✓ Marques et al (2010) First Forest Inventory East-Timor_NFI_pdf_xs copy.pdf ✓ Newby et al (2014) Teak in Northern Laos.pdf ✓ Norghauer et al (2011) Mahogany Invasion.pdf ✓ Old et al. (2003) Forestry - economic and social benefits East Timor.pdf ✓ Owra et al (2009) Swietenia_macrophylla_Agroforestry Database.pdf ✓ Owra et al (2009) Tectona_grandis.pdf ✓ Philippines Mahogany Invasive.pdf ✓ Richardson et al (2000) Naturalization and invasion of alien plants-concepts and definitions.pdf ✓ Smith (1985) Impact on Alien Plants Hawaii Native Biota.pdf ✓ Sri Lanka invasive checklist.pdf ✓ Stone and Scott (1985) Hawai_is Terrestrial Ecosystems.pdf ✓ Thompson et al (2007) SM in Puerto Rico.pdf ✓ Timor-Leste Invasive Species CheckList.pdf ✓ Trainor_2011_Eucalyptus_alba_in_the_Lesser_Sundas.pdf ✓ World AgroForestry Policy Document - Alien Invasive Species.pdf ✓ xpand Foundation Board Governance October 2013.doc • **Files for Baseline** ✓ Lasco (2002) Forest Carbon Budgets.pdf ✓ Lasco and Pulhin (2013).pdf ✓ Population and Housing Census Timor Leste 2010.pdf ✓ Prasetyo 2000 Grassland Carbon Stock.pdf ✓ World Bank Timor Leste Scoping Study 2007.pdf • **Files for CO2 Fix AR Soil** ✓ ar-am-tool-13-v1 Tool for assessing degraded lands.pdf ✓ ar-am-tool-16-v1.1.0 Soil Organic Carbon Stocks.pdf ✓ Costin - Powell -2006-_ Timor Leste Situation Analysis_FIN.pdf ✓ Geology-and-Soils-in-Timor-LesteA4.pdf	Literature reviews

- ✓ National biodiversty plan 2011_2020.pdf
- ✓ Prodoc_UNDP GEF_SSRI.pdf
- ✓ Timor-Leste_NAP_combat land degredation Revised_Draft (1).pdf

- **Files for CO2 Fix *C. Equisetifolia***
  - ✓ Casuarina_equisetifolia World Agroforestry Database.pdf
  - ✓ Copy of Schneider_et_ al_2013_Growth_performance_of_sixty_tree.pdf
  - ✓ issg Database_ Ecology of Casuarina equisetifolia.pdf
  - ✓ Vid and Par (2014) C.equisetifolia Biomass Equation.pdf

- **Files for CO2 Fix *D. nigra***
  - ✓ allometric_equation_56254 trunk biomass Dalbergia spp..pdf
  - ✓ chan2013 source paper of allometric equation for Dalbergia spp..pdf
  - ✓ D.nigra wood density - world agroforestry.pdf
  - ✓ Dalbergia_nigra_growth_topography.pdf
  - ✓ Growth rate - Costa 2015.pdf

- **Files for CO2 Fix *E. Urophylla***
  - ✓ Eucalyptus Urophylla WAF DB.txt
  - ✓ Eucalyptus_urophylla Owra et al (2009).pdf
  - ✓ Latifah et al. (2014) Predicting growth and yield Eucaluypts Indonesia.pdf
  - ✓ Mendes 2009 Euc Urophylla.pdf
  - ✓ Sein and Mitlohoner CIFOR1108 Eucalyptus Urophylla.pdf
  - ✓ Whitesell et al. (1992) Biomass Eqn E Uro.pdf

- **Files for CO2 Fix *S. album***
  - ✓ Adinugroho and Sidiyasa (2006).pdf
  - ✓ Orwa , growth rate Santalum_album.PDF
  - ✓ Allometrics from Dwyer et al. 2010
  - ✓ Dwyer et al. 2010 source paper of allometric equation
  - ✓ Orwa , growth rate Santalum_album

- **Files for CO2 Fix *S. foetida***
  - ✓ allometric_equation_38517 S.rhinopetala.pdf
  - ✓ S.foetida growth rate Pham et al. 2021.pdf
  - ✓ S.foetida wood density - world agroforestry centre.pdf

- **Files for CO2 Fix *S. Macrophylla***
  - ✓ Adinugroho and Sidiyasa (2006).pdf
  - ✓ Agroforestry Tree Crop Combination SM.pdf
  - ✓ Banaticla et al 2005 and Sales et al. 2005.pdf
  - ✓ Chave (2014) S.Macrophylla factsheet.pdf
  - ✓ FAO 2001 Forest Plantation MAI data.pdf
  - ✓ Krisnawati1104 Mahogany Growth Rates Indonesia.pdf
  - ✓ Owra et al (2009) Swietenia_macrophylla_Agroforestry Database.pdf
  - ✓ Schneider_et_ al_2013_Growth_performance_of_sixty_tree.pdf
  - ✓ Swietenia Macrophylla Denisty WAF DB.txt

- **Files for CO2 Fix *T. ciliata***
  - ✓ Kar et al. 2020.pdf
  - ✓ Rahman et al. Toona Ciliata.pdf

	✓ Regression_Equations_for_Estimating_Tree_Volume_an.pdf ✓ S.R. Roshanzada, et al T ciliata.pdf ✓ T.ciliata growth rate Heinrich_2005.pdf • **Files for CO2 Fix *T. Grandis*** ✓ 36_Sousa_Tectona_grandis.pdf ✓ AbovegroundBiomassOnTeak_Perez-Kanninen.pdf ✓ Giri et al Biomass Carbon Stock for Tectonis Grandis.pdf ✓ Kraenzel Teak plantations .pdf ✓ Owra et al (2009) Tectona_grandis.pdf ✓ Perez (2005) Stand Growth Scenarios for Teak.pdf ✓ Siregar (2011) Develop Forest Carbon Standard and Carbon Accounting System for Smallscale Plantation based on Local Experiences.pdf ✓ Tectona Grandis WAF DB.txt • Amazon_Biomass.pdf • GPG_LULUCF_FULLEN.pdf • ta581 ALGIS_Landuse Classifications.doc • Vietnam_Biomass.pdf	
/20/	HMI SOP_Oct 2023.docx	SOP
/21/	T-PreReview_V1.1-Terms_and_Conditions.pdf	Terms & Conditiond
/22/	**SDG Goal 02:** • Folder_2020 count for 2021 payment • Folder_2021 count for 2022 payment • Folder_2022 count for 2023 payment • Farmer meeting 25 Jan 2020.pdf • Farmer meeting November 2023.pdf • Farmer payments Baguia + RM extension area-all years.png • Farmer payments Baguia + RM extension area-all years.png • Example Farmer Agreement.pdf	
/23/	• **Folder_ Principle 1_ Human Rights** ✓ xFA Policy Human Rights.pdf • **Folder_ Principle 2_ Gender Equity** ✓ 2021 G&I Workshop Debrief .pdf ✓ 2022 Gender training.jpeg ✓ 2022 Gender training(1).jpeg ✓ 2022 GESI Manual for Rai Matak + HMI. Tetun.docx ✓ 2022 GESI Manual for Rai Matak + HMI-English.docx ✓ Participants list_GALS training_HMI include.pdf • **Folder_ Principle 3_ Community Health, Safety and Working Conditions** ✓ 2021 Safeguarding + Child Protection Training 2021.jpg ✓ 2021 Safeguarding Workshop - Jan21-Baguia.pdf ✓ 2022 Participants list_Safegurading training.pdf ✓ 2022 Safegaurding training refresh 2022.jpeg ✓ 2022 SAFEGUARDING BRIEFING FOR HMI and Rai Matak Team.ppt ✓ 2023 Safeguarding training attendance-HMI included.pdf • **Folder_ Principle 5_ Corruption** ✓ ACNC Registration.pdf ✓ Financial Report YEAR ENDED 30th JUNE 2023.pdf ✓ Financial Report- Year ending 30 June 2021.pdf	Safeguarding Principles

	✓ Financial Report- Year ending 30 June 2022.pdf ✓ Xpand Foundation _ ACNC -AIS 2021.pdf ✓ Xpand Foundation _ ACNC- AIS- 2023.pdf ✓ Xpand Foundation _ ACNC-AIS 2022.pdf • **Folder_ Principle 6_ Labour Rights** ✓ HMI-RM contract template.docx ✓ Team Reflections Event 2022.jpeg	
/B01/	**GS4GG requirements:** a) 107_V2.0_PAR_Programme-of-Activity-Requirements b) 203_V1.2.1_AR_LUF-Activity-Requirements c) 501_V2.1_PR_GHG-Emissions-Reductions-Sequestration d) 203G_V1.0_AR_LUF_Risks-Capacities-Guideline e) Stakeholder Consultation and Engagement Requirements (version 2.0	Other
/B02/	LUF AR Methodology Soil Carbon Tool v1.0	Other
/B03/	V1.0_LUF_AR-Methodology-GHGs-emission-reduction-and-Sequestration- Methodology	Other
/B04/	A/R Methodological tool "Combined tool to identify the baseline scenario anddemonstrate additionality in A/R CDM project activities".	Other
/B05/	Verification contract for the performance certification between CCIPL (VVB) & PD dated 06/10/2023	Other
/B06/	**Other GHG programs:** a) CDM: https://cdm.unfccc.int/Projects/index.html b) VCS: https://registry.verra.org/app/search/VCS/All%20Projects GSF: https://registry.goldstandard.org/projects?q=&page=1 c) Plan Vivo: https://www.planvivo.org/pages/category/projects?Take=28	Other

During the desk review, CCIPL applied the standard auditing techniques to assess the quality of information provided.

2.2 On-site visit and follow-up interviews with project stakeholders

An OSV was performed by the members of the verification team of Carbon Check from 12th January 2024 to 16th January 2024 at PD's office and 8 sample plantation sites in Timor Leste. The project representatives and stakeholders interviewed/i-xxxi/ were as:

Sl. No.	Name (Organisation)	Date	Type	Topic
/i/	Amy Stevenson	12/01/2024 – 16/01/2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype	• PD's roles and responsibilities. • Baseline scenario. • Sustainability and local stakeholders meeting. • Project implementation. • Future project plans. • Organization structure, roles and responsibilities. • Changes in organization structure • Ownership of land titles • Ownership of carbon credits • Recruitment of staff • Induction Training • Employment contracts • Forest inventory. • Baseline scenario. • Project implementation.

				• Monitoring activities, sampling activities • DBH and height measurement • Plantation techniques • Species selection • Project operation, roles and responsibilities • Occupational health safety • Training of forest technician, foreman etc.
/ii/	Rose Foragher	12/01/2024 – 16/01/2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype	• Forest inventory. • Monitoring activities, sampling activities • DBH and height measurement • Plantation techniques • Species selection • Project operation, roles, and responsibilities • Occupational health safety
/iii/	Julioo luis	12/01/2024 – 16/01/2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype	• Induction Training • Employment contracts • Plantation techniques • Training with respect to identification and protection of endangered / native species • DBH and height measurement
/iv/	Apolinario A. de olivieve	12/01/2024 – 16/01/2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype	• Induction Training • Employment contracts • Plantation techniques • Training with respect to identification and protection of endangered / native species • DBH and height measurement
/v/	Januario Da Costa Dias	12/01/2024 – 16/01/2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype	• Induction Training • Employment contracts • Plantation techniques • Training with respect to identification and protection of endangered / native species • DBH and height measurement
/vi/	Juliaodos R Menezes	12/01/2024 – 16/01/2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype	• Induction Training • Employment contracts • Plantation techniques • Training with respect to identification and protection of endangered / native species • DBH and height measurement
/vii/	Edmundo Ximenes	12/01/2024 –	☒ On-site	• Induction Training

		16/01/2024	☒ Face to Face ☐ Telephone ☐ Email ☐ Skype	• Employment contracts • Plantation techniques • Training with respect to identification and protection of endangered / native species • DBH and height measurement
/viii/	Virgilio Do R. Ximenes	12/01/2024 – 16/01/2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype	• Induction Training • Employment contracts • Plantation techniques • Training with respect to identification and protection of endangered / native species • DBH and height measurement
/ix/	Isak A- Cuterres	12/01/2024 – 16/01/2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype	• Induction Training • Employment contracts • Plantation techniques • Training with respect to identification and protection of endangered / native species • DBH and height measurement
/x/	Joas dos Santos	12/01/2024 – 16/01/2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype	• Induction Training • Employment contracts • Plantation techniques • Training with respect to identification and protection of endangered / native species • DBH and height measurement
/xi/	Cowtantino Rodridas	12/01/2024 – 16/01/2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype	• Induction Training • Employment contracts • Plantation techniques • Training with respect to identification and protection of endangered / native species • DBH and height measurement
/xii/	Augusto Juoa Barros	12/01/2024 – 16/01/2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype	• Induction Training • Employment contracts • Plantation techniques • Training with respect to identification and protection of endangered / native species • DBH and height measurement
/xiii/	Saturnino Das Neves	12/01/2024 – 16/01/2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype	• Induction Training • Employment contracts • Plantation techniques • Training with respect to identification and protection of endangered / native species

				• DBH and height measurement
/xiv/	Cesas T. Pereira	12/01/2024 – 16/01/2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype	• Induction Training • Employment contracts • Plantation techniques • Training with respect to identification and protection of endangered / native species • DBH and height measurement
/xv/	Agostinta Helena Bans	12/01/2024 – 16/01/2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype	• Induction Training • Employment contracts • Plantation techniques • Training with respect to identification and protection of endangered / native species • DBH and height measurement
/xvi/	Anita M.Barbosa	12/01/2024 – 16/01/2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype	• Induction Training • Employment contracts • Plantation techniques • Training with respect to identification and protection of endangered / native species • DBH and height measurement
/xvii/	Orlando de Rosa S.	12/01/2024 – 16/01/2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype	• Induction Training • Employment contracts • Plantation techniques • Training with respect to identification and protection of endangered / native species • DBH and height measurement
/xviii/	Emilio B. de Olivaria	12/01/2024 – 16/01/2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype	• Induction Training • Employment contracts • Plantation techniques • Training with respect to identification and protection of endangered / native species • DBH and height measurement
/xix/	Casper M. Barbosa	12/01/2024 – 16/01/2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype	• Induction Training • Employment contracts • Plantation techniques • Training with respect to identification and protection of endangered / native species • DBH and height measurement
/xx/	Juliao Barbosa	12/01/2024 – 16/01/2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email	• Induction Training • Employment contracts • Plantation techniques

			☐ Skype	• Training with respect to identification and protection of endangered / native species • DBH and height measurement
/xxi/	Syamsuddin Bc	12/01/2024 – 16/01/2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype	• Induction Training • Employment contracts • Plantation techniques • Training with respect to identification and protection of endangered / native species • DBH and height measurement
/xxii/	Zepenino Das Santos	12/01/2024 – 16/01/2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype	• Induction Training • Employment contracts • Plantation techniques • Training with respect to identification and protection of endangered / native species • DBH and height measurement
/xxiii/	Leopoldina Gut	12/01/2024 – 16/01/2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype	• Induction Training • Employment contracts • Plantation techniques • Training with respect to identification and protection of endangered / native species • DBH and height measurement
/xxiv/	Domibgas Simoes	12/01/2024 – 16/01/2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype	• Induction Training • Employment contracts • Plantation techniques • Training with respect to identification and protection of endangered / native species • DBH and height measurement
/xxv/	Gregomia N A	12/01/2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype	• Landowner/ Farmer
/xxvi/	Mario A Guterra	13/01/2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype	• Landowner/ Farmer
/xxvii/	Deolinda Pinto	13/01/2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype	• Landowner/ Farmer
/xviii/	Adalberto Pinto	13/01/2024	☒ On-site ☒ Face to Face ☐ Telephone	• Landowner/ Farmer

			☐ Email ☐ Skype	
/xxix/	Cosue B. Perioa	13/01/2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype	• Landowner/ Farmer
/xxx/	Joana G. Gusmao	15/01/2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype	• Landowner/ Farmer
/xxxi/	Eartmo X Bug	15/01/2024	☒ On-site ☒ Face to Face ☐ Telephone ☐ Email ☐ Skype	• Landowner/ Farmer

VVB's sampling and document review/assessment of key details including interviews during the on-site inspection:

The performance certification team of the VVB has applied a sampling approach for on-site inspection/i-xxxi/ as part of Performance Certification of the project area, in accordance with the paragraph 38 of the Standard: Sampling and surveys for (version 09.0). Acceptance sampling has been chosen by the performance certification team and, accordingly, steps listed in paragraph 39 of the sampling standard have been followed.

Performance certification team has opted for AQL of 0.5% and UQL of 20%; producer risk of 10% and consumer risk of 20% in determining the VVB's sample size. Accordingly, VVB has identified 8 representative samples of the respective farm holders from the entire plantation area included under the project activity for the current monitoring period with acceptance number (c) as zero (00).

Sl. No.	Name of the Project Area	Plantation Area	AQL	UQL	Consumer Risk	Producer Risk	Sample Size
1	Baguia, Municipality of Baucau, Timor-Leste	348.4 ha	0.5%	20%	20%	10%	08
Total							**08**

VVB has also verified the area of each of the 9 permanent sampling plots by measuring and/or cross verifying the DBH (through tree girth measurement) and height of around 80 trees during the on-site inspection/i-xxxi/.

Fig 1: On-site inspection of nursery

Fig 2: Nursery: seedling propagation site

Fig 3: Height Measurement

Fig 4: DBH measurement

The field measurement (on 12th January and 16th January 2024) performed by the VVB team reveals no material discrepancy and has been found to be aligned with the monitoring measurements conducted by PD. The PD has used Smart Tools software while VVB has used Nikon rangefinder for the measurement of tree height. Both the devices were calibrated on site and have been found to be accurate and applicable for the field measurements.

The DBH has been verified through the diameter tape. Furthermore, the VVB has also interviewed[/i-xxxi/] the MRV personnel involved project monitoring and field measurement from PD's side and found them competent to perform such standardized measurements for tree parameters (tree height and diameter). The equipment used for the measurement was found appropriate as the results from VVB's equipment reveals comparable and/or consistent results. VVB also interviewed[/i-xxxi/] PD's MRV team and noted that there exists a standardized monitoring SOP[/20/] has been employed for the project monitoring and/or reporting of field measurement activity.

The monitoring raw/field data/07/ have been cross-checked with the one transferred to CO_2 Fixation work sheet and found that there were no material errors or omissions during the transfer of data from one platform to other. Hence, VVB confirms that no discrepancy was observed in the data and information flow system applied by the PD. VVB during the desk review of project documentation has checked the following documents to assess the PD's QA/QC process and to cross check the results presented in the CO_2 Fixation work sheet/10/ with the raw data sheets/07/:

1. Latest Annual report/08/.
2. Agreements with landowners have been verified during the on-site inspection/i-xxxi/, which is evidence of the total land area implemented under the project. This is also evidence for the title of the land and this agreement also confirms the relinquishment of carbon credit rights from landowners to the PD.
3. Shape files of each of the MUs/13/.
4. SOP/Protocol for the project/20/
5. Raw records of field measurement done by the PD/07/
6. Records of training/22/

VVB has interviewed/i-xxxi/ personnel responsible for the carbon calculation/07/ including those who transferred the data in the mobile software and further trans imposed it to the excel sheets. This review of the system reveals correct data and information flow, and no discrepancy was found. The QA/QC of the data/information flow including data archiving based on this assessment has been found to be adequate and applicable.

Fig 5: On-site Inspection of farm holders

Fig 6: Interview with project participant & document review

Through the above-mentioned activities, the VVB confirmed the following aspects in relation to the project activity:

- Confirm the implementation and operation of the project,
- Review the data flow for generating, aggregating and reporting the monitoring parameters,
- Confirm the correct implementation of procedures for operations and data collection,
- Cross-check the information provided in the KPI documentation with other sources,
- Review the calculations and assumptions used to obtain the GHG removal data and ER,
- Identify if the quality control and quality assurance procedures are in place to prevent or correct errors or omissions in the reported parameters.

2.3 Resolution of outstanding issues

The objective of this phase of the verification is to resolve any outstanding issues (issues that require further elaboration, research, or expansion) which have to be clarified/corrective action done prior to final VVB's conclusions on the project implementation, monitoring practices and achieved emission reductions. In order to ensure transparency a verification protocol is completed for the project activity. The protocol shows in transparent manner criteria (requirements), means of verification and resulting statements on verification actual project activity against identified criteria.

The verification protocol serves the following purposes:

- It organises in a table form, details, and clarifies the requirements, a GS project is expected to meet GS requirements.
- It ensures a transparent verification process where the VVB will document how a particular requirement has been verified and the result of the verification.
- It ensures that the issues are accurately identified, formulated, discussed, and concluded in the verification report.
- It ensures the determination of achieving credible emission reductions from the project activity.

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

The findings of verification process are summarized in the tables below:

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

In Table FAR, shall reflect the forward actions initiated by the verification team if the monitoring and reporting require attention and/or adjustment for the next verification period.

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

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

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

Requests for clarification (CLs) are raised if information is insufficient or not clear enough to determine whether the applicable GS requirements have been met.

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

2.4 Internal quality control

The final verification report will pass a technical review before being submitted to the project participant and SustainCert. A technical reviewer qualified in accordance with CCIPL's qualification scheme for GS validation and verification performed the technical review.

2.5 Verification Team

In accordance with the Accreditation Standard and CCIPL's internal procedures a competent team was appointed by CCIPL to carry out the verification of this MR. The team is outlined below:

Verification Team			Type of Involvement							
Full name	**Location**	**Appointed for Sectoral Scopes (Technical Areas)**	Supervising the work	Desk review	Site Visit + Interview	Report and protocol Writing	Technical Expert Input	Reporting Support	Technical Reviewer	Technical Expert Input to TR
Ahalee Bhowmik	India	14.1	X	X	X	X	X			
Maniruddin Dhabak	India	14.1		X	X	X				
Vikash Kumar Singh	India	1.1, 1.2, 3.1,4.1,7.1, 13.1, 13.2, 14.1, 15	X	X			X		X	
Ms. Ilidio Nelson Belarmino	Timor Leste	NA			X					

3. Verification findings

The verification criteria (requirements), the means of verification and the results of verification are documented in detail in Appendix 1.

3.1 Sustainable Development Contributions Achieved

Means of validation	DR, OSV, I
Findings	CAR 02 has been raised and satisfactorily closed.
Conclusion	CCIPL based on review of MR/02/, on-site inspection and interviews/i-xxxi/ confirms that the project has contributed to three SDGs which includes: **SDG 02:** End hunger, achieve food security and improved nutrition and promote sustainable agriculture. **SDG 13:** Take urgent action to combat climate change and its impacts **SDG 15:** Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.

SDGs	Target Achieved (as per MR/02/)	VVB Assessment	Verified Score

	SDG 2: End hunger Target 2.3.2 - Average income of small-scale food producers, by sex and indigenous status	US$474,492 of farmer payments and USD$156,349 in community project funds paid into the Baguia community economy since the GS certification in 2016.	Based on the review of GS MR[/02/] and further by on-site inspection[/i-xxxi/], VVB has verified all the receipts of farmers during the document verification and on-site inspection[/i-xxxi/]. , and PD has also furnished the scanned copies of the payment receipts to substantiate SDG 2 for the 4th Monitoring Period. VVB, based on the review of the farmers payment slips and contractual agreement, affirms that PD has duly submitted all pertinent scanned copies of supporting documents[/22/] to substantiate the income inflow into the community under SDG 2. VVB, based on the on-site inspections[/i-xxxi/] and payment receipts of the farmers[/22/], affirms that the project has successfully achieved its objective of providing local stakeholders with an average income. This accomplishment aligns with the designated indicator for the current monitoring period.	+ (Positive)

		Hence, rating of this indicator as positive is correct.	
SDG 13: Climate action	Actual values of carbon sequestered achieved during this monitoring period **69,804 tCO_2e excluding buffer. (Tree Biomass + SOC)**	The project involves plantation of native or naturalised tree species such as *Swietenia Macrophylla, Eucalyptus Urophylla, Tectona Grandis, Casuarina Equisetifolia, Dalbergia Nigra, Santalum album, Sterculia Foetida* and *Toona Ciliata* which overall has sequestered 69,804 tCO_2e excluding buffer (Tree Biomass + SOC) for this monitoring period. Hence, rating of this indicator as positive is correct.	+ (Positive)
SDG 15: Life on land Target 15.2 - By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally	The total of 406,071 trees planted 2010 - 2022, counted in 2023 is under management.	Based on the review of GS MR/02/, supporting documents/07/ and on-site inspection/ interviews/i-xxxi/, VVB verifies that PD has effectively managed a total of 406,071 trees, leading to a substantial enhancement in the well-being of farm owners. VVB, during the on-site inspection/i-xxxi/, based on the Tree O2 application/05//07/ has cross-verified that all the 406,071 trees	+ (Positive)

			were tagged to get the sensor-based information of each tree. Therefore, SDG 15.2 from the project activity is confirmed by the VVB. Hence, rating of this indicator as positive is correct.	

3.2 Location of project

Means of validation	DR, OSV, I
Findings	CI 09 has been raised and satisfactorily closed.
Conclusion	CCIPL based on review of MR/02/, supporting documents/13/ and further during on-site inspection and interviews/i-xxxi/ confirms that the project has been implemented in several sub-district of Baguia, Municipality of Baucau, Timor-Leste including 922 Baguia farmers engaged in community forestry. Through this project, a total of 406,071 trees has been planted under management on private smallholder farms. This is further confirmed by the review of supporting documents provided by the PD. Furthermore, VVB confirms that the GPS coordinates of each site sampled has been checked and verified from the data sheet. However, a finding was raised in respect of the inconsistencies in the KML files and shapefiles for which PD has provided the updated "*Baguia Jan2024 Cumulative EPA Dissolved*" supporting file/13/. Through GIS analysis in QGIS, VVB has determined that the file is properly dissolved with no overlapping multi-polygons and meets the requirements. PD has provided sufficient clarification about the discrepancy between the data in the attributes of the shapefiles and in the project description. Any confusion caused by the language used in the PD has now been resolved. Through further GIS analysis in QGIS, VVB has determined that the Land_Use_Forest shapefile is the same as *Baguia_Forest_Dissolved.Shp*/13/ and the requested shapefile/13/ has been provided by the Project Proponent. Sufficient clarification has been provided by the Project Developer regarding the GPS inaccuracies and overlapping buffers. Any confusion caused by the visualization of the village names in "*KPI Annex 2022*" has been resolved. The updated "*KPI Annex 2023*" contains no such issues. Furthermore, PD has provided sufficient clarification regarding the GPS inaccuracies as was also observed by the VVB team during the on-site inspection/i-xxxi/. Based on the review of the files provided by PD, VVB confirm that the KML & shapefiles are in compliance with GS standard requirement, furthermore, the responses and evidenced provide by PD referent to all findings for the KML & shapefiles has been resolved successfully.

3.3 Description of implemented project

Means of validation	DR, OSV, I
Findings	--
Conclusion	Based on the review of GS MR[/02/], supporting documents and further during the on-site inspection/interviews[/i-xxxi/], the project stratification is done based on the number of Baguia farmers i.e., 922 Baguia farmers are engaged in community forestry under this project and a total of 406,071 trees have been planted under management on private smallholder farms. The plantations have been done through reforestation with native or naturalised tree species: *Swietenia Macrophylla* (Mahogany), *Eucalyptus Urophylla* (Mountain Gum), *Tectona Grandis* (Teak), *Casuarina Equisetifolia* (Sheoak), *Dalbergia Nigra* (Rosewood), *Santalum album* (Sandalwood), *Sterculia Foetida* (Wild almond) and *Toona Ciliata* (Red Cedar). The plantations are developed in the nursery following with a rigorous process of selection and further transplanted in the project site after 3 months. VVB during the on-site inspection[/i-xxxi/] has visited the nursery and has interviewed[/i-xxxi/] the relevant personnels involved in the nursery management and operation. VVB, in the on-site inspection[/i-xxxi/], has verified that saplings are sourced from the local community and subsequently provided to farmers at no charge. Specifically, species with small or micro seedlings are nurtured in coco pits until they reach maturity for transplantation into polybags. After a period of three months, these well-developed saplings are distributed to farmers for planting in their respective fields. VVB has additionally reviewed the Risk Register[/18/] and other supporting documentation related to annual activities encompassing capacity-building initiatives, monitoring protocols, and qualifications in forestry, operations, finance, legal aspects, as well as the technical qualifications of workers involved in implementation. The assessment also encompasses technical equipment, financial safeguards, and measures taken to mitigate risks associated with drought, flood, hail, snow, heavy rains, hurricanes, domestic and wild threats, diseases, frost, heat, irregular resettlement, or illicit crop production. **Project Stratification** The modelling units or stratums has been developed for project stratification. VVB affirms that PD has meticulously gathered data and parameters for all 406,071 trees using the Tree O2 software. Each tree is assigned a unique Tag ID within the software. The recorded data encompasses Diameter at Breast Height (DBH) and height for each tree throughout the monitoring period. Stratification is based on distinct categories including farm holders, establishment year, and species. VVB has reviewed the raw data sheets along with the tree count raw data sheet[/07/] provided and confirms the accuracy and consistency of the information provided. VVB during the on-site inspection[/i-xxxi/] has visited the 9 Mus belonging to farm-holders namely: 1. Grigorio Nazario Alves (Farmer ID – 1440197976): VVB has verified his Mahogany Plantation. 2. Najario Alves (Farmer ID: 1441127496): VVB has verified his *C.equiestifolia, T.Ciliata* and *S.album* 3. Mario A. Guteres (Farmer ID: 1434613320): VVB has verified his *S.album, Casuarina* and Mahogony plantation. 4. Adalberto Pinta (Farmer ID: 1427981384): VVB has verifies his Mahogany plantation.

	5. Deolinda Pinto (Farmer ID: 1442267720): VVB has verifies his Mahogony & Casuria plantation. 6. Cosme B. Perreira (Farmer ID: 1436852568): VVB has verified his Teak and Sandalwood plantation. 7. Caetano F. Belo (Farmer ID: 1440229976): VVB has verified his Mahogony plantation. 8. Rita de Almeida (Farmer ID: 1331017755): VVB has verified his Mahogany and Sandalwood plantation. 9. Agustinno A. Henejes (Farmer ID: 4433503560): VVB has verified his Teak and S. foetida plantation. VVB conducted a cross-verification of data and parameters for approximately 80 randomly selected trees within the farmland. This involved measuring the DBH and height of each tree, cross-referencing the information with the unique tags assigned to individual trees. Consequently, VVB also confirms that the permanent plots are appropriately stratified and well-defined, ensuring the accuracy and reliability of the data collected.

3.4 Forward Action Requests

Means of validation	DR, OSV, I
Findings	Table 1 under Annex 1
Conclusion	As per the GS MR/02/, three (03) FARs were raised during the previous Verification which are as follows: **FAR ID 01 -** The VVB (or individual auditor) shall assess why eligible areas have different overlapping planting dates. It appears that, in many cases, the same eligible area is marked with different planting dates and accounted more than once. See the Part-A of the below Annex as an example. The VVB/ individual auditor shall ensure that planting areas are not counted more than once in CO2-performance calculations. **FAR ID 02-** The VVB (or individual auditor) conducting for the period covered under this deviation request shall raise a Future Action Request (FAR) requesting that at the next verification audit, a VVB (or individual auditor) shall assess the reason for the project areas (per planting year) showing values below a given threshold for each of 4 vegetation indexes (assessed based on Sentinel 2 imagery with 10mx10m spatial resolution). The VVB at the time of next audit shall use available audit techniques to corroborate the status and carbon sequestration performance of random samples of points in such areas below the threshold. The project developer and SustainCERT should keep the shapefiles of the areas below the threshold for records, available at the following link https://drive.google.com/drive/folders/1YiEHFokTixrYkwPniNQzORxe_lw0orXx?usp=sharing. **FAR ID 03 -** If at next verification the VVB (or individual auditor) identifies an underperformance of the areas mentioned in point “ii” above, then the project developer shall compensate for any and all performance shortfall by transferring corresponding GS VERs from another GS project to the GS Impact Registry (to be calculated based on the magnitude of the performance shortfall, if any). Compensation of a performance shortfall must take place before the next performance certification can be concluded and further GS-VERs can be issued by the project. PD has addressed all the 03 FARs that were raised in the 3rd monitoring period and has been satisfactorily closed by VVB. For FAR 1, based on the review of the audit

	report of the previous verification, VVB confirms that the FAR raised by the previous auditor was found to be sufficiently addressed and closed out by the current auditor. VVB based on the review of the files and detailed evidence in responses provided by PD has been evidenced the assessment of vegetation indexes (based in Sentinel2 with 10mx10m of special resolution) per planting year, presented in Gold Standard Tiffs (files: BelowThreshold2010 to 2019.tif), these files allow to corroborate that the trees have a high awareness with the pixels of the vegetation indices evaluated inside of the areas below the threshold. A working link with all the necessary data has been provided by the Project Developer. In the explanation video provided, Project developer has justified that the presence of underperforming areas in the vegetative indices is due to the presence of juvenile trees that have not had time to fully develop a canopy. Through GIS analysis of the provided shapefiles and vegetative indices, VVB has determined that this is true and that the justification is sufficient. VVB based on files/12/ provided by PD and the evidenced/12/ provided for FAR2 (not underperformances have been identified), furthermore has been clarified the fact that the project was modelled based in every tree planted. Through GIS analysis of the provided spatial data in QGIS and the explanation in the provided video, the VVB has determined that sufficient evidence and justification has been provided by the project developer regarding the underperforming areas. VVB confirms that One (1) FAR has been raised from this monitoring period.

3.5 Post-Design Certification changes

Means of validation	DR, OSV, I
Findings	CAR 02 and CL 05 have been raised and satisfactory closed.
Conclusion	As per Section B.2.5 of GS MR/02/, the Post-Design Certification Changes are as follows: 1. **Temporary deviations from the approved Monitoring & Reporting Plan, methodology and standardized baseline**: Not applicable. 2. **Corrections:** The carbon sequestration calculation method was updated due to discrepancies in counting surviving trees. In 2022, all trees were tagged to verify survival rates against planting years. The 2023 tree count revealed fewer surviving trees from previous counts, likely due to tree loss, farmers withdrawing, or irregular counting. VVB, based on the Tree O2 application data/05/, Remote sensing GIS Shapefiles/13/ and ex-post carbon calculation sheet/03/, confirmed an overestimation of 15,641 tCO2e in the 2021 audit and has proposed that this excess be deducted from the VERs issued for the current monitoring period. During the on-site inspection/i-xxxi/, PD assured that moving forward, annual counts of all planted trees will be conducted to ensure accurate calculations. Furthermore, the 2021 audit for the 2020 VERs (vintage year 2021) amounting to 15,266 tCO2e was incomplete, as not all trees were counted by March. The subsequent 2023 count revealed a total of 20,950 tCO2e, leading to an additional 5,684 tCO2e for the 2020 VERs (vintage year 2021). 3. **Changes to start date of crediting period:** Not applicable. 4. **Permanent changes from the Design Certified monitoring plan, applied methodology or applied standardized baseline:** Not applicable. **5. Changes to project design of approved project**

	New Species: VVB, based on the on-site inspection[/i-xxxi/] and review of the SOP[/20/], confirmed the inclusion of a new tree species, *Toona ciliata* (Red cedar), in the project. Although these trees were planted in previous years as part of the initiative, and farmers received payments for them, they were not initially incorporated into the calculations until a substantial number had been planted. The 2023 carbon calculations now encompass the contributions of *Toona ciliata* to the project. Based on the review of GS MR[/02/], supporting documents[/13/] and on-site interviews[/i-xxxi/], VVB confirms the proposed to design changes to the project. Hence, it is valid and appropriate.

3.6 Description of monitoring system applied by the project

a) Monitoring of Plantation Establishment and Management

Means of validation	DR, OSV
Findings	CL 01, CL 02 and CL 04 have been raised and satisfactory closed.
Conclusion	Based on the review of supporting documents and on-site inspection[/i-xxxi/], VVB confirms through reforestation with native or naturalised tree species: *Swietenia Macrophylla* (Mahogany), *Eucalyptus Urophylla* (Mountain Gum), *Tectona Grandis* (Teak), *Casuarina Equisetifolia* (Sheoak), *Dalbergia Nigra* (Rosewood), *Santalum album* (Sandalwood), *Sterculia Foetida* (Wild almond) and *Toona Ciliata* (Red Cedar). Based on the on-site inspection[/i-xxxi/] and review of the supporting documents and GS MR[/02/], VVB has confirmed the utilization of the TreeO2 smartphone application for the collection of tree-related data. The TreeO2 app, developed by the xpand Foundation, employs RFID tags assigned to each tree at breast height. Farmers receive a WithOneSeed membership card, incorporating an RFID chip, which assigns a distinct ID to each farmer. Concurrently, each tree is also assigned a unique ID. The TreeO2 app establishes a connection between these two IDs, enabling the program to document various data points, such as planting date, species, GPS location, circumference measurements, and farmer payment details. Subsequently, TreeO2 stores this comprehensive dataset on a cloud-based server, facilitating analysis at any given time. VVB affirms that PD has meticulously gathered data and parameters for all 406,071 trees using the Tree O2 software. Each tree is assigned a unique Tag ID within the software. The recorded data encompasses Diameter at Breast Height (DBH) and height for each tree throughout the monitoring period. Stratification is based on distinct categories including farm holders, establishment year, and species. VVB has reviewed the raw data sheets along with the tree count raw data sheet[/07/] provided and confirms the accuracy and consistency of the information provided. VVB during the on-site inspection[/i-xxxi/] has visited the 9 Mus belonging to farm-holders namely: 1. Grigorio Nazario Alves (Farmer ID – 1440197976): VVB has verified his Mahogany Plantation. 2. Najario Alves (Farmer ID: 1441127496): VVB has verified his *C.equiestifolia, T.Ciliata* and *S.album* 3. Mario A. Guteres (Farmer ID: 1434613320): VVB has verified his *S.album, Casuarina* and Mahogony plantation.

	4. Adalberto Pinta (Farmer ID: 1427981384): VVB has verifies his Mahogany plantation. 5. Deolinda Pinto (Farmer ID: 1442267720): VVB has verifies his Mahogony & Casuria plantation. 6. Cosme B. Perreira (Farmer ID: 1436852568): VVB has verified his Teak and Sandalwood plantation. 7. Caetano F. Belo (Farmer ID: 1440229976): VVB has verified his Mahogony plantation. 8. Rita de Almeida (Farmer ID: 1331017755): VVB has verified his Mahogany and Sandalwood plantation. 9. Agustinno A. Henejes (Farmer ID: 4433503560): VVB has verified his Teak and S. foetida plantation. VVB conducted a cross-verification of data and parameters for approximately 80 randomly selected trees within the farmland. VVB has conducted a thorough verification by cross-referencing all 80 tree IDs using the TreeO2 app, alongside the corresponding farmers' IDs and thus confirms that all the data's mentioned in the ex-post carbon calculation sheet deems to be appropriate and valid. This involved measuring the DBH and height of each tree, cross-referencing the information with the unique tags assigned to individual trees. Consequently, VVB also confirms that the permanent plots are appropriately stratified and well-defined, ensuring the accuracy and reliability of the data collected. Furthermore, findings were raised regarding the *Eucalyptus* species, VVB, based on the review of the justification and carbon calculation spreadsheet, confirms that only *Eucalyptus urophylla* has been planted in this project and *E. urophylla* was mistakenly recorded as *E. alba.* VVB, based on the review of the revised ex-post carbon calculation sheet and a comprehensive review of pertinent literature, VVB affirms that PD has appropriately referenced all relevant sources for the allometric equation on a species-specific basis. Furthermore, VVB acknowledges that PD has accurately computed the actual carbon sequestration values. Therefore, VVB confirms the validity and appropriateness of all calculations. VVB, furthermore verifies that the percentage of each tree species in each MU was determined by utilizing the tree numbers from the 2021 audit calculations sheet. This process was employed to establish the number of trees per MU, maintaining the same distribution ratio as utilized in the prior audit. As a consequence, certain values for the number of trees now include decimal points in the calculations.

b) Training

Means of validation	DR, OSV
Findings	CL 06 & CAR 04 has been raised and satisfactorily closed.
Conclusion	VVB, following the on-site inspection[/i-xxxi/] and based on the review of the supporting documents[/22/], affirms that training for HMI staff on the survey methodology is scheduled to commence at the onset of the monitoring and measurement program, spanning from July to October. The training sessions will encompass both theoretical and practical components, providing a comprehensive understanding of tree measurement techniques, data tallying procedures, and interview techniques. This approach ensures that HMI staff are well-versed in the methodologies essential for the successful implementation of the monitoring and measurement program. VVB, during the on-site inspection[/i-xxxi/] have verified the training records of the farmers.

	However, a finding was raised to provide the scanned copies of the remaining training records of the HMI staff for the same and PD has sufficiently provided all the relevant training records/22/ documents for this monitoring period, for the closure of the finding. VVB, upon reviewing the Standard Operating Procedures (SOP)/20/ and the grievance logbook/14/ submitted by PD, confirms that PP has furnished comprehensive training details for the farmers. VVB furthermore confirms that all grievances received during the monitoring period have been meticulously recorded and documented. Based on the review of *HMI SOP_Dec 2023*/20/ and *Grievance Doc Monitoring Period 4- 2024.*docx/14/, VVB found that PD has included pest management plan for the pest infestation in Mahogany and the information has been passed to farmers. Furthermore VVB, based on the review of the farmers payment slips/22/ and contractual agreement/22/, affirms that PD has duly submitted all pertinent scanned copies of supporting documents to substantiate the income inflow into the community.

c) Sampling Design

Means of validation	DR, OSV
Findings	--
Conclusion	As per the review of GS MR/02/, supporting documents and further during on-site interviews/inspection/i-xxxi/, confirms that there are total 8 strata which have been defined according to the species involved in the project activity. The performance certification team of the VVB has applied a sampling approach for on-site inspection/i-xxxi/ as part of Performance Certification of the project area, in accordance with the paragraph 38 of the Standard: Sampling and surveys for (version 09.0). Acceptance sampling has been chosen by the performance certification team and, accordingly, steps listed in paragraph 39 of the sampling standard shall be followed. Performance certification team has opted for AQL of 0.5% and UQL of 20%; producer risk of 10% and consumer risk of 20% in determining the VVB's sample size. Accordingly, we plan to do the sample 8 samples from the entire plantation area under the project activity for the current monitoring period with acceptance number (c) as zero (00). Sample plots established and monitored are permanent as the permanent plots provide efficient verification and are more economic than the temporary ones. Furthermore, the permanent sample plots are selected as they are statistically more efficient in estimating the changes in forest carbon stocks. VVB, has also verified the forest inventory of Ho Musan Ida Community Forestry program who have designed the Standard Operation Process/20/ & Forest Inventory Guide/05/ to work together and to ensure that the forest inventory is tracked in a standard way and confirmed and agreed upon between all stakeholders. The HMI staff maintains both electronic records (via TreeO2) and paper records. At the end of each counting day, HMI staff report back to the HMI office, confirm the farmers who have had trees counted, and 'sync' the TreeO2 data stored in the App with the TreeO2 Dashboard. The HMI Team leader will coordinate and monitor the HMI staff team during the tree

	monitoring/measurement period. This period is generally between July and October. Forest data is gathered through two distinct processes: • **Annual Tree Count**: VVB based on the supporting document[/05/], confirms that during this process, all trees managed by tree farmers in Baguia undergo GPS-based location marking. The details of each tree are meticulously recorded in the TreeO2 system. • **Bi-annual Growth Rate Audit**: This audit occurs twice a year and focuses on assessing the growth rates of selected tree farms within the planting area. To facilitate carbon store analysis, the height of trees is measured at breast height during these audits. Subsequently, the collected growth data is documented in the TreeO2 system for further analysis. The two main information sources for the inventory are: • Tree measurements and observations; • Interviews[/i-xxxi/] were conducted with local farmers, land owners or users, key village cooperative conveners, and district administration staff. During the on-site inspection[/i-xxxi/], VVB additionally verifies that all data obtained from both the annual tree count and the bi-annual tree measuring process is securely stored on the TreeO2 Dashboard. This comprehensive dataset is instrumental in managing various aspects of the tree program, including the annual addition of new trees, monitoring tree mortality, and determining the number of trees each farmer is managing. This information is crucial for facilitating the program's annual payments to farmers. Moreover, the data plays a key role in comprehending the growth rates and carbon storage dynamics within the program. The secure storage and utilization of this data on the TreeO2 Dashboard contribute to the effective management and analysis of the tree program.

d) Monitoring Organisation and Responsibilities

Means of validation	DR, OSV I
Findings	--
Conclusion	The WithOneSeed Community Forestry Program are promoted by xpand Foundation Australia Ltd who act as carbon Project Developer of the project and Ho Musan Ida Community Forestry program are the one who have designed the Standard Operation Process & Forest Inventory Guide to work together and to ensure that the forest inventory is tracked in a standard way and confirmed and agreed upon between all stakeholders. The activities started at the starting of 2010 and is aimed towards planting of up to 602,871 trees eligible for GS certification under 2039. By the end of 2023, around 406,071 trees have already planted and the cumulative crown area of the trees planted was estimated at 348.4 ha are eligible in accordance with requirements of Gold Standard. VVB, based on the on-site inspection[/i-xxxi/] and supporting document[/20/], confirms that both xpand Foundation and HMI have implemented training

	programs for their staff, focusing on procedures for data collection, record-keeping, and file management. A detailed document checklist aids staff in ensuring the comprehensive gathering of all necessary supporting evidence. For individual farmers, both digital and hard copy documents are organized and filed according to their unique TreeO2 farmer ID, village, and Project Area. Other documentation is filed based on the village or Project Area. Data collected through TreeO2 is sourced by local project partners and centrally managed online by HMI. As a precautionary measure and to verify the accuracy of recorded data, HMI maintains physical records of this information. These hard copy records, along with other documents, are stored at HMI. Additionally, digital copies are uploaded to a cloud-based platform, providing accessibility to both HMI and xpand Foundation. Original copies of farmer agreements are securely held at the HMI office. This comprehensive documentation and filing system ensures the integrity and accessibility of the collected data.

3.7 Data and parameters

a) Data and parameters fixed ex ante or at renewal of crediting period

Means of validation

DR, OSV, I

Findings

CL 07 and CAR 01 has been raised and satisfactory closed.

Conclusion

In line with section D.1 of the GS MR[/02/], VVB confirms that the PD has appropriately defined Data and parameters fixed ex-ante or at renewal of crediting period.

Data and parameters fixed ex ante	VVB Assessment
1. Ex-ante growth rates	Based on the review of section D.1. of the GS MR[/02/], and during on-site inspection[/i-xxxi/] VVB, based on the revised PDD and MR, affirms that PD has appropriately updated the relevant sections. The provided explanation clarifies that, as of August 2023, all trees with a trunk height exceeding 1.3m were measured, and there is no stipulated minimum circumference for inclusion in the assessment. Furthermore, VVB, based on the review of the revised Ex-post carbon calculation sheet, confirms that PD has

Species	Literature Growth Rate	Source
Swietenia Macrophylla (Mahogany)	1.25 cm/yr (1 – 15 yrs) 1 cm/yr (15 - 30 yrs)	Schneider *et al.* (2013) Chave (2014), Krishnawati *et al.* (2011)
Eucalyptus Urophylla (Mountain Gum)	2.75 cm/yr (up to 3 yrs) 1.5 cm/yr (after 3 yrs)	Sein and Motlinhoner (2011), Turnball and Doran (1997)
Tectona Grandis (Teak)	D=60[1-e-0.07t]1.165	Perez (2005)
Casuarina Equisetifolia (Sheoak)	D=3.895ln(t) + 2.336	Schneider *et al.* (2013), Geary (2003), Halos

		(1983), Uma *et al.* (2013)	used the allometric equation for the actual carbon calculation of *Tectona Grandis* and PD has corrected the allometric equation for the species *D. nigra* and for *S. album*, PD has used a species- specific allometric equation for the carbon calculation. Based on the review of the sheet *GS4210 WOS Baguia CO2 Certificate Calculations_Jan 2024*[/04/], VVB found that PD has added the source of the growth rate value along with the sources and review of literatures[/19/].
Dalbergia Nigra (Rosewood)	0.81 cm/yr	Costa *et al.* 2015	
Santalum album (Sandalwood)	0.625 cm/yr	Orwa *et al.* (2009)	
Sterculia Foetida (Wild almond)	1.88 cm/yr	Derived from Pham *et al.* 2023	
Toona Ciliata (Red Cedar)	0.358	Heinrich 2004	
2. Root-to-Shoot Ratio (Rts) Value applied: 0.20			Based on the review of section D.1. of the GS MR[/02/], the values for Root-to-Shoot ratio deems to be appropriate and valid by VVB. VVB have also cross-checked the values with Sales *et al.,* (2005)[/19/]. Hence, VVB confirms it to be appropriate.
3. Carbon fraction for tree biomass Value Applied: 0.50			VVB based on review of GS MR[/02/] in compliance with the GS A/R requirements, confirms that the default value for carbon fraction for tree biomass proposed by GS A/R requirement, as valid and appropriate
4. Conversion factor 'C' to 'CO2' Value Applied: 44/12			VVB based on review of GS MR[/02/] in compliance with the GS A/R requirements, confirms the default value for conversion factor 'C' to CO_2 as valid and appropriate.
5. Baseline non-tree biomass Value Applied: • Grassland: 14.87 tCO2/ha • Cropland: 0			VVB based on review of GS MR[/02/] in compliance with the GS A/R requirements, VVB has cross-checked the values with Openshaw., (2007). Hence, VVB confirms it to be appropriate.

	6. SOC Values applied: • Grassland: 2.93 tCO_2e/ha • Cropland: 0.95 tCO_2e/ha	VVB based on review of GS MR/02/ in compliance with the GS A/R Soil Carbon Tool, VVB has cross-checked the values and confirms that the SOC calculation was carried out using the Gold Standard *"A/R Soil Carbon Tool" ('403_V1.0_0.7_LUF_AR Methodology_Soil Carbon Tool.xlsm'* version, from 'Guidelines – A/R Soil Carbon – Gold Standard for the Global Goals'). Hence, VVB confirms it to be appropriate.

b) Data and parameters monitored

Means of validation	DR, OSV, I	
Findings	CL 03 has been raised and satisfactorily closed.	
Conclusion	**Data and parameters monitored**	**VVB Assessment**
	1. Tree Diameter; Diameter at breast height of trees species i, in year t	Based on the review of GS MR/02/ supporting documents/07/ and further doing on-site inspection/interviews/i-xxxi/, it is confirmed by the VVB that the DBH has been verified through the diameter tape. Furthermore, the VVB has also interviewed/i-xxxi/ the MRV personnel involved in such measurement from PD's side and found them competent to perform such standardized measurements for diameters.
	2. Emission reduction	Based on the review of GS MR/02/ and supporting documents/07/, VVB confirms that the values applied for the carbon fraction and shoot-root ratio are valid and appropriate. VVB have also cross-checked the values with Sales *et al*., (2005) for shoot-root ratio. VVB based on review of GS MR/02/ in compliance with the GS A/R requirements, confirms that the default value for carbon fraction for tree biomass proposed by GS A/R requirement, as valid and appropriate.
	3. Annual increase in collective income of participating farmers	Based on the review of GS MR/02/ and further by on-site inspection/i-xxxi/, VVB has verified some receipts of farmers during the document

		verification, and PD has furnished the scanned copies of the payment receipts to substantiate SDG 2 for the 4th Monitoring Period. VVB, based on the review of the farmers payment slips[/22/] and contractual agreement[/22/], affirms that PD has duly submitted all pertinent scanned copies of supporting documents[/22/] to substantiate the income inflow into the community under SDG 2, hence leads to the closure of finding.
	4. Number of trees under management each year	Based on the review of GS MR[/02/], supporting documents[/07/] and on-site inspection/ interviews[/i-xxxi/], VVB verifies that PD has effectively managed a total of 406,071 trees, leading to a substantial enhancement in the well-being of farm owners. Therefore, SDG 15 from the project activity is confirmed by the VVB.

c) Comparison of monitored parameters with last monitoring period.

Means of validation	DR, OSV, I
Findings	CL 07 and CAR 01 has been raised and satisfactorily closed.
Conclusion	As per the GS MR[/02/], the values obtained for different Data/Parameters in this monitoring period and the values obtained last monitoring period have varied significantly and is presented as follows:

Data/Parameter	Value obtained in this monitoring period	Value obtained last monitoring period
Swietenia macrophylla (Mahogany)	1.6736	1.69 cm/yr
Eucalyptus urophylla (Mountain Gum)	1.4277	1.627 cm/yr
Tectona grandis (Teak)	1.4319	1.18 cm/yr
Casuarina equisetifolia (Sheoak)	1.5804	0.908 cm/yr
Dalbergia nigra (Rosewood)	1.6536	1.5282 cm/yr
Santalum album (Sandalwood)	0.944	1.2313 cm/yr
Sterculia foetida (Wild almond)	1.5794	0.7753 cm/yr
Toona ciliata (Australia Red Cedar)	1.5319	1.847 cm/yr
SDGs 2, 13 & 15 Number of participating farmers	922	811
SDG 2	USD$474,492	USD$144,671

	Annual total payments to participating farmers		
	SDG 13 Total tCO2e sequestered (VERs)	69,804	32,094
	SDG 13 &15 Total number of trees under management	406,071	189,663

3.8 Implementation of sampling plan

Means of validation	DR, OSV, I
Findings	--
Conclusion	The VVB assessment of implementation of sampling plan in compliance with section D.4. of GS MR[/02/] is as follows: **Strata:** The stratification is based on the farm holder involved in the project activity. A total of 922 Baguia farmers are engaged in community forestry **Sampling Method:** No random sampling approach was required – before August 2023, all trees with a circumference greater than 20cm were measured. After August 2023, all trees with a trunk height taller than 1.3m were measured to observe their growth rates , regardless of circumference. **Field Measurements:** Based on the review of GS MR[/02/] supporting documents[/07/] and further doing on-site inspection/interviews[/i-xxxi/], it is ascertained by the VVB that PD has appropriately measured the number of trees. VVB affirms that PD has meticulously gathered data and parameters for all 406,071 trees using the Tree O2 software. Each tree is assigned a unique Tag ID within the software. The recorded data encompasses Diameter at Breast Height (DBH) and height for each tree throughout the monitoring period. Stratification is based on distinct categories including farm holders, establishment year, and species. VVB has reviewed the raw data sheets along with the tree count raw data sheet[/07/] provided and confirms the accuracy and consistency of the information provided. VVB during the on-site inspection[/i-xxxi/] has visited the 9 Mus belonging to farm-holders namely: 1. Grigorio Nazario Alves (Farmer ID – 1440197976): VVB has verified his Mahogany Plantation. 2. Najario Alves (Farmer ID: 1441127496): VVB has verified his *C.equiestifolia, T.Ciliata* and *S.album* 3. Mario A. Guteres (Farmer ID: 1434613320): VVB has verified his *S.album, Casuarina* and Mahogony plantation. 4. Adalberto Pinta (Farmer ID: 1427981384): VVB has verifies his Mahogany plantation. 5. Deolinda Pinto (Farmer ID: 1442267720): VVB has verifies his Mahogony & Casuria plantation. 6. Cosme B. Perreira (Farmer ID: 1436852568): VVB has verified his Teak and Sandalwood plantation. 7. Caetano F. Belo (Farmer ID: 1440229976): VVB has verified his Mahogony plantation. 8. Rita de Almeida (Farmer ID: 1331017755): VVB has verified his Mahogany and Sandalwood plantation.

	9. Agustinno A. Henejes (Farmer ID: 4433503560): VVB has verified his Teak and S. foetida plantation. VVB conducted a cross-verification of data and parameters for approximately 80 randomly selected trees within the farmland. VVB has conducted a thorough verification by cross-referencing all 80 tree IDs using the TreeO2 app, alongside the corresponding farmers' IDs and thus confirms that all the data's mentioned in the ex-post carbon calculation sheet deems to be appropriate and valid. This involved measuring the DBH and height of each tree, cross-referencing the information with the unique tags assigned to individual trees. At the close of this monitoring period, there were over 11 full time permanent, 3 permanent part-time time and 10 casual staff employed for tagging and measuring HMI trees. The recorded data was then uploaded via the cloud on the TreeO2 web dashboard. The compiled date was then extracted from the TreeO2 dashboard in .csv format and saved as a .xls excel spreadsheet. Consequently, VVB also confirms that the permanent plots are appropriately stratified and well-defined, ensuring the accuracy and reliability of the data collected.

3.9 Calculation of SDG impacts

a) Calculation of baseline value or estimation of baseline situation of each SDG Impact

Means of validation	DR, OSV, I
Findings	--
Conclusion	Based on the desk review of GS MR/02/ and on-site interviews/inspection/i-xxxi/, VVB has confirmed the assessment of SDG Impact as follows:

SDG Impact	VVB Assessment
SDG 13, Climate Action: Baseline for grassland and cropland	Based on the review of GS MR/02/, the data (like height and DBH) of plots with existing trees prior to the start of the plantations activities has been collected, which allowed to calculate an average baseline tree biomass per hectare. Furthermore, VVB confirms the baseline grassland during on-site inspection/interviews/i-xxxi/. For the additional area of trees planted per year, the baseline carbon stock of croplands and grasslands is estimated for each additional area planted. This is then deducted from the fixation values from trees and soil.
SDG 2, End hunger	Based on the review of GS MR/02/ VVB confirms that the SDG 2 is not applicable in baseline estimation.
SDG 15, Life on Land	Based on the review of GS MR/02/ VVB confirms that the SDG 15 is not applicable in baseline estimation.

b) Calculation of net benefits or direct calculation for each SDG Impact

Means of validation	DR, OSV, I
Findings	CL 03 and CAR 02 have been raised and satisfactory closed.
Conclusion	Based on the desk review and on-site inspection/i-xxxi/, VVB has concluded the assessment of SDG Impact calculation as follows:

SDG 13: Climate Action	Based on the review of the GS MR and on-site inspection/i-xxxi/, VVB confirms that the project involves plantation of native or naturalised tree species such as *Swietenia Macrophylla, Eucalyptus Urophylla, Tectona Grandis, Casuarina Equisetifolia, Dalbergia Nigra, Santalum album, Sterculia Foetida* and *Toona Ciliata* which overall has sequestered 69,804 tCO2e (Tree Biomass + SOC) for this monitoring period. Based on the review of supporting documents VVB confirms that SDG 13 has reached the target by sequestering 69,804 tCO2e from this project.
SDG 2: End Hunger	Based on the review of GS MR/02/ and further by on-site inspection/i-xxxi/, VVB has verified all the receipts of farmers during the document verification and on-site inspection/i-xxxi/. VVB, based on the review of the farmers payment slips/22/ and contractual agreement/22/, affirms that PD has duly submitted all pertinent scanned copies of supporting documents to substantiate the income inflow into the community under SDG 2, hence leads to the closure of finding. During the on-site inspection/i-xxxi/, VVB also confirmed that each farmer is receiving an incentive of 50 cent per tree per year.
SDG 15: Life on Land	Based on the review of GS MR/02/, supporting documents/07/ and on-site inspection/ interviews/i-xxxi/, VVB verifies that PD has effectively managed a total of 406,071 trees, leading to a substantial enhancement in the well-being of farm owners. Therefore, SDG 15 from the project activity is confirmed by the VVB. VVB has also visited the nursery plantation areas during the on-site inspection/i-xxxi/,

c) Calculation of leakage

Means of validation	DR, OSV, I
Findings	--
Conclusion	In line with the Gold Standard Afforestation/Reforestation (A/R) GHG Emissions Reduction & Sequestration Methodology v1.0/B03/, the leakage calculated by the PD is zero, which, based on the on-site inspection and interviews/i-xxxi/, is deemed appropriate by the VVB. VVB has reviewed the baseline and leakage assessment report/15/. VVB, further through on-site inspection/i-xxxi/ and interviews confirms that there is no shifting of any activities due to project implementation. Thus, leakage mentioned as zero is valid.

d) Leakage emissions

Means of validation	DR, OSV, I
Findings	--
Conclusion	In line with the Gold Standard Afforestation/Reforestation (A/R) GHG Emissions Reduction & Sequestration Methodology v1.0/B03/, the leakage calculated by the PD is zero, which, based on the on-site inspection and interviews/i-xxxi/, is deemed appropriate by the VVB. VVB has reviewed the baseline and leakage assessment report/15/. VVB, further through on-site inspection and interviews/i-xxxi/ confirms that there is no shifting of any activities due to project implementation. Thus, leakage mentioned as zero is valid.

e) Calculation of net benefits or direct calculation for each SDG Impact up until 2023

Means of validation	DR, OSV, I
Findings	CL 07 & CAR 02 has been raised and satisfactorily closed.
Conclusion	Based on review of GS MR/02/, VVB assessed the compliance of following:

Safeguards	Baseline estimate	Project estimate (as per PDD)	Net Benefit (as per MR)	VVB Assessment
SDG- 13 Climate Action	N/A	Annually: 87,021 tCO2e	69,804 tCO_2e	Based on review of GS MR/02/, VVB confirms that value was appropriate.
SDG- 2 End Hunger	N/A	Annually: US$500,702	US$474,492	Based on review of GS MR/02/, VVB confirms that value was appropriate.

	SDG-15 Life on land	N/A	406,071 Total trees under management	406,071 Total trees under management	Based on review of GS MR/02/, VVB confirms that value was appropriate.

f) Comparison of actual SDG Impacts with estimates in approved PDD

Means of validation	DR, OSV, I
Findings	CAR 07 has been raised and satisfactory closed
Conclusion	VVB, based on the review of the registered PDD, confirms that Section B.6.4 only had estimates for SDG 13 up to 2020, and no estimates for SDG 2 and SDG 15, so it cannot be used to compare ex-ante estimates with measured values in this monitoring period.

g) Remarks on increase in achieved SDG Impacts from estimated value in approved PDD

Means of validation	DR, OSV, I
Findings	--
Conclusion	Based on review of the GS MR/02/, VVB Conclude that this section was not applicable for A/R project activities according to GS monitoring report template guide v1.1.

3.10 Safeguards reporting

Means of validation	DR, OSV, I
Findings	CAR 07 has been raised and satisfactory closed.
Conclusion	As per section F of the GS4GG MR/03/, VVB assessed the compliance of following safeguards:

Safeguards	VVB Assessment
1. Human Rights The Program respects internally proclaimed human rights and has no tolerance for abuse of such rights as defined by the Universal Declaration of Human Rights.	Based on review of the Human Rights Policy/23/ and on-site inspection and interviews/i-xxxi/ with representatives and local stakeholders, VVB confirms the safeguard was appropriate. Mitigation measure: Documentation of xFA Policy Human Rights.pdf /23/
2. Gender Equality Program design has emphasised the equal role of women in the community and ensures equal opportunity with regard to participation in the program.	Based on document review/23/ and on-site inspection and interviews/i-xxxi/ with project representatives and local stakeholders, VVB confirms the trainings and policies for both men and women has been developed to safeguard the principle appropriately.

		Mitigation measure: Workshop debriefs[/23/], GESI Manuals[/23/], Participants lists[/23/] and Gender trainings on these topics[/23/].
	3. Community Health, Safety and Working Conditions Establish an HMI Occupational Health and Safety Committee to represent program employees	Based on document review[/23/] and on-site inspection and interviews[/i-xxxi/] with project representatives and local stakeholders, VVB confirms the trainings and policies has been developed to safeguard the principle appropriately. Mitigation measure: Health and safety policies[/23/], trainings[/23/], workshops[/23/] and participation lists[/23/] on these topics[/21/].
	5. Corruption The program has rigorous financial processes and systems (including an audit committee) to guard and protect against corruption or corrupt practices.	Based on document review[/23/] and on-site inspection and interviews[/i-xxxi/] with project representatives and local stakeholders, VVB confirms the annual reports, audit reports and annual information statements have been developed to safeguard the principle appropriately. Mitigation measure: Financial reports[/23/] and ACNC registration[/23/]
	6. Labour Rights HMI staff are free to establish or join labour organisations, as per the National Labor Code. All staff have employee agreements that outline entitlements and conditions, which are compliant with the Timor-Leste Labor Code and the Principle as defined in the monitoring plan.	VVB has reviewed the contracts[/23/] during the on-site inspection[/i-xxxi/] and has also interviewed the workers confirming that the safeguard was appropriate. Mitigation measure: Documentation of contracts[/23/].

3.11 Stakeholder Inputs and Legal Disputes

Means of validation	DR, OSV, I
Findings	CL 06, CAR 04, has been raised and satisfactorily closed.
Conclusion	As per section G of the GS4GG MR[/03/], there are 21 disputes, inputs and comments reported by the stakeholder. The grievances and the solutions are appropriately defined in section G.1 of the GS4GG MR[/03/]. This was further verified by the VVB through desk review and on-site visit[/i-xxxi/]. Furthermore, VVB verified that the Inputs and Grievances logbook is kept within the community accessibility and the project developer. VVB, upon reviewing the Standard Operating Procedures (SOP)[/20/] and the grievance logbook[/14/] submitted by PD, confirms that PD has furnished

	comprehensive training details for the farmers. VVB furthermore confirms that all grievances received during the monitoring period have been meticulously recorded and documented. Based on the review of HMI SOP_Dec 2023/20/ and Grievance Doc Monitoring Period 4- 2024.docx/14/ VVB found that PD has included pest management plan for the pest infestation in Mahogany and the information has been passed to farmers.

4. Certification Opinion

CCIPL has performed the fourth (04th) periodic verification (performance certification) of the registered Gold Standard project activity "**WithOneSeed Community Forestry Program**" (GS4210) for the period 01/04/2021-30/11/2023 (including both the dates).

This verification was conducted on the basis of the Gold Standard Afforestation/Reforestation (A/R) GHG Emissions Reduction & Sequestration Methodology (Version 1.0)/B03/, PAR Principles-requirements v1.2/B02/, GS4GG Land Use & Forests Activity Requirements Version 1.2.1/B03/, Risks & Capacities Guideline for Land Use & Forest projects Version 1.0, PAR Validation and Verification standard v1.0/B04/ and GHG Emissions Reduction & Sequestration Product Requirements Version 2.0/B06/.

The performance certification activities conducted by CCIPL included: collection of information, documents and data supporting the reported GHG removals; assessment of biomass inventory and GHG calculation spreadsheets; assessment of monitoring practices on the field; assessment of information management system; assessment of whether the project has been implemented in accordance with the validated documentation; and assessment of whether the provisions made in the monitoring plan were consistently and appropriately applied.

The VVB has raised Eleven (11) clarification (CLs), Seven (07) corrective action requests (CARs), One (01) FAR of this verification and Three (03) FAR from previous verification has also been addressed during this verification and has been satisfactorily closed.

The VVB concludes with a reasonable level of assurance that the project is in conformance with Gold Standard Afforestation/Reforestation (A/R) GHG Emissions Reduction & Sequestration Methodology (Version 1.0)/B03/, PAR Principles-requirements v1.2/B02/, GS4GG Land Use & Forests Activity Requirements Version 1.2.1/B03/, Risks & Capacities Guideline for Land Use & Forest projects Version 1.0, PAR Validation and Verification standard v1.0/B04/ and GHG Emissions Reduction & Sequestration Product Requirements Version 2.0/B06/. No qualifications or limitations exist with respect to the verification opinion reached by the auditor. CCIPL confirms that the project has been implemented in accordance with the validated project documentation and applied GS A/R requirements.

The VVB, hereby certifies that the quantity of CO_2 benefits acquired by the project activity from 01/04/2021-30/11/2023 (including both the dates), 54,164 tCO_2e (excluding buffer reduction) as described in the table below:

Start Dates	End Dates	VERs (Tree CO_2)	VERs (SOC)	Baseline	Total
01/04/2021	31/12/2021	**5,684** (15,266 credits had already been issued for 2021 under the previous monitoring period (up until 31/03/2021), therefore this value needs to be deducted from the 2021 total for this monitoring period.)			
01/01/2022	31/12/2022	**29,747**	**562**	**519**	**29,790**
01/01/2023	30/11/2023	**33,974**	**634**	**277**	**34,331**
Total					**69,804**
Deduction for overestimation in 2021 audit		**15,641**			
Total after deduction		**54,164**			

Risk buffer of 20% (tCO2e)	10,833
Net CO2-certificates (tCO2e) (Rounded down)	43,331

Appendix 1. List of Findings from Verification

Table 1. FAR from previous verification

FAR	01	**Section no.**		**Date** 15/01/2024
Description of FAR				
The VVB (or individual auditor) shall assess why eligible areas have different overlapping planting dates. It appears that, in many cases, the same eligible area is marked with different planting dates and accounted more than once. See the Part-A of the below Annex as an example. The VVB/ individual auditor shall ensure that planting areas are not counted more than once in CO2-performance calculations.				
Project Developer response				**Date:** 25/01/2024
No written response from the Project Proponent is required. This FAR raised by the previous auditor was found to be sufficiently addressed and closed out by the current auditor				
Documentation provided by Project Developer				
VVB assessment				**Date:** 08/02/2024
Based on the review of the audit report of the previous verification, VVB confirms that the FAR raised by the previous auditor was found to be sufficiently addressed and closed out by the previous auditor because the auditor was provided with the interim/intermediary spatial datasets for the year's corresponding to the third monitoring period. Using the "*Merged/Combined/Common*" Area figures in the CO2 Certificate Calculation workbook (e.g. annual cumulative EPA figures) the auditors calculated annual area increases in the project's EPA (HA). Annual increases in the project's EPA were also calculated by the auditor using the interim/intermediary spatial datasets provided. Consistency in the annual increases in the project's EPA were found between these files checked by the auditors. The auditor was also provided with the relevant spatial data (shapefiles) for the project including the annual cumulative EPA layers (2010 – 2020). The annual cumulative EPA values were subsequently applied in the CO2 Certificate Calculation workbook for calculation of the final ER/CO2 Certificate values. The auditors independently calculated the annual cumulative EPA (HA) in GIS for each year of the project and compared their results against that given in the attribute data of each annual cumulative EPA layer as well as the area figures applied in the CO2 Certificate Calculation workbook. **FAR has been closed**				

FAR	02	**Section no.**		**Date** 15/01/2024
Description of FAR				
The VVB (or individual auditor) conducting for the period covered under this deviation request shall raise a Future Action Request (FAR) requesting that at the next verification audit, a VVB (or individual auditor) shall assess the reason for the project areas (per planting year) showing values below a given threshold for each of 4 vegetation indexes (assessed based on Sentinel 2 imagery with 10mx10m spatial resolution). The VVB at the time of next audit shall use available audit techniques to corroborate the status and carbon sequestration performance of random samples of points in such areas below the threshold. The project developer and SustainCERT should keep the shapefiles of the areas below the threshold for records, available at the following link https://drive.google.com/drive/folders/1YiEHFokTixrYkwPniNQzORxe_lw0orXx?usp=sharing				
Project Developer response				**Date:** 25/01/2024
There were no or very few trees planted as part of the program in most of the areas identified at the time of the GS assessment. Trees have mostly only been planted in these areas after the GS analysis or they were very young at the time of analysis. A possible explanation for the lack of				

green could be seasonal factors including less rainfall resulting in the drying of grassland and croplands. , The presentation of the GS analysis indicates a lack of understanding of the GS 4120 project model. The GS 4120 model has a large Eligible Planting Area (EPA) that provides a mosaic across the sub-district of Baguia, but this does not mean that all the EPA is planted on. And as shown in the video clip there are few trees planted in the areas analysed by GS. Therefore while the GS analysis may show less tree cover in a number of areas, it is not as a result of the GS 4120 project underperforming. The program is designed to ensure that over time as more trees are planted under the GS 4120 project the tree cover in these areas will increase and therefore satellite images should be greener.

Documentation provided by Project Developer

This data had already been provided in the folder of documents shared with the VVB and was linked in the "Summary of files in the folder" document. This link is working.

See folder "FAR site inspections". Within this folder, see folder "Gold Standard locations" for TIFF files showing the areas Gold Standard said showed a vegetation index below a threshold. Within the other folders, each area has a kml file, video and photos of the areas from site visits after this FAR was raised. A video showing the relevant farms, with tiff files and trees with an explanation has been added. The document "Copy of Report of FAR 1 locations from Deviation Request" explains how farms were selected to visit to address this FAR.

FAR site inspections

FAR Explanation video in QGIS.mp4

Gold Standard locations

Copy of Report of FAR 1 locations from Deviation Request.docx - Google Docs

VVB assessment	**Date:** 08/02/2024

VVB based on the review of the files and detailed evidence *i.e.,* KMLs and remote sensing shapefiles in responses provided by PD has been evidenced the assessment of vegetation indexes (based in Sentinel2 with 10mx10m of special resolution) per planting year, presented in Gold Standard Tiffs (files: BelowThreshold2010 to 2019.tif), these files allow to corroborate that the trees have a high awareness with the pixels of the vegetation indices evaluated inside of the areas below the threshold.

A working link with all the necessary data has been provided by the project proponent.

In the explanation video provided, Project proponent has justified that the presence of underperforming areas in the vegetative indices is due to the presence of juvenile trees that have not had time to fully develop a canopy. Through GIS analysis of the provided shapefiles and vegetative indices, VVB has determined that this is true and that the justification is sufficient.

FAR has been closed.

FAR	03	**Section no.**		**Date** 15/01/2024

Description of FAR

If at next verification the VVB (or individual auditor) identifies an underperformance of the areas mentioned in point "ii" above, then the project developer shall compensate for any and all performance shortfall by transferring corresponding GSVERs from another GS project to the GS Impact Registry (to be calculated based on the magnitude of the performance shortfall, if any).

Compensation of a performance shortfall must take place before the next performance certification can be concluded and further GS-VERs can be issued by the project.
Project Developer response **Date:** 25/01/2024
Because this project model counts every tree and is not based on area, an area cannot underperform. If an area has fewer trees or they are smaller, this is taken into account in the carbon calculations, so no extra sequestration is claimed.
Documentation provided by Project Developer
VVB assessment **Date**: 08/02/2024
VVB based on files provided by PD and the evidenced provided for FAR2 (no underperformances have been identified), furthermore has been clarified the fact that the project was modelled based in every tree planted. Through GIS analysis of the provided spatial data in QGIS and the explanation in the provided video, the VVB has determined that sufficient evidence and justification has been provided by the project proponent regarding the underperforming areas. **FAR has been closed.**

Table 2. CL from this Verification

CL	01	**Section no.**	GS4210 Baguia CO2 Certificate Calculations_Jan 2024	**Date:** 15/01/2024
Description of CL				
In the file "*GS4210 Baguia 2023 tree data by species_ Dec*", data for only *Eucalyptus* is recorded. However, under the sheet "*GS4210 Baguia CO2 Certificate Calculations_Jan 2024*" and Monitoring report both *E. alba* and *E. urophylla* is mentioned. PD shall clarify these inconsistencies.				
Project Developer response				**Date:** 24/01/2024
Only *Eucalyptus urophylla* has been planted in this project. In 2018, *E. urophylla was* mistakenly recorded as *E. alba.* This was because, locally, people refer to both eucalypts as Ai-bobur, so there was confusion about the species in English. This was before TreeO2 was used. This is why E.alba was in the calculations sheet for previous years. To avoid staff selecting the wrong species during this monitoring period, only 'Eucalyptus' was available to select in TreeO2, so the data for this period only says 'Eucalyptus'. *E. alba* has now been removed from the calculations and the relevant sheet in "*GS4210 Baguia 2023 tree data by species_ Jan 2024*" has been named as *E. urophylla.*				
Documentation provided by Project Developer				
"*GS4210 Baguia 2023 tree data by species_ Jan 2024*" "*GS4210 Baguia CO2 Certificate Calculations_Jan 2024*"				
VVB assessment				**Date:** 08/02/2024
VVB, based on the review of the justification and carbon calculation spreadsheet, confirms that only *Eucalyptus urophylla* has been planted in this project and *E. urophylla* was mistakenly recorded as *E. alba.* **CL has been closed**				

CL	02	**Section no.**	GS4210 Baguia CO2 Certificate Calculations_Jan 2024	**Date:** 15/01/2024
Description of CL				

PD shall provide reference for allometric equation for the following species - *C. equisetifolia, E. alba, S. macrophylla, S. album, T. ciliata, S. foetida,* used in the sheet "*GS4210 Baguia CO2 Certificate Calculations_Jan 2024"* along with the pertaining review of literatures.	
Project Developer response	**Date:** 25/01/2024
Source papers for allometric equation values have now been added to the "scientific & academic literature" folder. The source paper for *C. equisetifolia* was not possible to download, so the link has been added next to the reference in the calculations sheet.	
Documentation provided by Project Developer	
See the "scientific & academic literature" folder. Scientific & Academic Literature - xpand Foundation - Google Drive	
VVB assessment	**Date:** 08/02/2024
VVB, based on the review of the revised ex-post carbon calculation sheet and a comprehensive review of pertinent literature, VVB affirms that PD has appropriately referenced all relevant sources for the allometric equation on a species-specific basis. Furthermore, VVB acknowledges that PD has accurately computed the actual carbon sequestration values. Therefore, VVB confirms the validity and appropriateness of all calculations. **CL has been closed**	

CL	03	**Section no.**	Table 2, GS MR	**Date:** 15/01/2024
Description of CL				
In compliance with Table 2 of the GS MR, PD is requested to provide the evidence (payment slips or payment agreements) for the income into community for which they have mentioned under SDG 2: *USD$137,673.50 (payment based on number of trees counted in 2021), USD$168,381.50(payment based on number of trees counted in 2022)* and *$201,748.50 (payment based on number of trees counted in 2023)*.				
Project Developer response				**Date:** 2/02/2024
Scanned copies of farmer payment records sighted in Timor-Leste now uploaded in the folder: https://drive.google.com/drive/folders/1pPALM5LTOCF06CSQkWCSD-J333gaVxDa Original farmer payment figures included in the monitoring report included farmer payments from the Baguia extension area. These villages are not included in project GS4210 but are managed by Foundation Ho Musan Ida. This error has now been rectified. An explanation of the variation between number of trees counted and farmer payments made is detailed below. **Payments in 2021** 249, 714 trees were counted in 2021 and the signed farmer payment records confirming USD$124,857.00 were issued in farmer payments. The tree count reported in the monitoring report is 4,773 trees less than what was recorded in 2021, as these trees had not survived at the end of the monitoring period. Farmers however, received payment for these trees back in 2021 because at the time, the trees were alive. **Payments 2022** 350,392 trees were counted in 2022, however farmers received payments for only 293,438 trees (equating to USD$146,719). Upon joining the program farmers agree to their role and responsibilities within this program with general rules of the program detailed during socialisation. They commit to planting trees no closer than 3 metres to ensure the growth and life of the tree can be sustained and to encourage agroforestry practice on their farms, so tree farming does not impact on food security in the community. They also committed to managing the weeds and pests throughout their tree planting area to support the trees survival and to ensure the health and safety of our program field staff				

when conducting tree counts. These rules are not only discussed during the socialisation meetings but are reiterated at the time of tree distribution and at the annual farmer payment/farmer reflection day organised by the PD each year. Two documents have been provided as examples of these rules being regularly reiterated to farmers. One document is the minutes from a farmer meeting in January 2020 and another from a farmer meeting in November 2023. In both these meetings the topic “Regras Ho Musan Ida” (translated in English to “With One Seed Rules”) is presented.

In the 2021 tree count season (for payment in 2022), it became apparent that a number of farmers were not abiding by the rules of the program. On some farms, field staff were experiencing difficulties with accessing trees amongst regrowth and poorly maintained farms, which impacted on staff efficiency and their ability to locate trees. It also increased the risk of snake bites and injuries and trees not surviving. As farmers receive the annual payment incentive in exchange for their management and care of each tree, the PD enforced the rules of the program. Consequently some farmers did not receive payment for some of their trees in the year 2022.

Farmers accompany field staff during the annual tree count and it is during this count that the field staff and farmers reach mutual agreement on the total farmer payment to be made. This amount is based on both the tree count and whether the program rules are being followed. This is why there is both the manual tree count which confirms the farmer payment amount based on the number of trees counted and whether the farmer is abiding by the rules, and the Tree02 tree count which includes all trees counted on the farm. The manual tree count is only conducted when there are concerns that the farmer is not meeting his/her responsibilities.

The excess funds of USD$28,4777 derived from carbon credit sales went toward covering the 2023 farmer payments and community-led projects funded by the carbon credit money received.

Payments 2023
406,071 trees were counted in 2022 with signed farmer payment records confirming USD$202,916 was issued in farmer payments. $119.50 was deducted from the farmer payments in 2023 for the same reasons as detailed in the 2022 payments. The $119.50 derived from carbon credit sales will go towards covering the 2024 farmer payments and community-led projects funded by the carbon credit money received.

Documentation provided by Project Developer

- Farmer payments Baguia + RM extension area-all years.png
- Farmer payments Baguia + RM Extension Area 2021.png
- Farmer payments Baguia + RM Extension Area 2022.png
- Farmer payments Baguia 2023.png
- HMI General Rules for Farmers.pdf
- Farmer meeting November 2023.pdf
- Farmer meeting 25 Jan 2020.pdf
- Afaloicai Farmers Payment 2020 in 2021.pdf
- Afaloicai Farmers Payment 2021 in 2022.pdf
- Afaloicai Farmers Payment 2022 in 2023.pdf
- Alaua-Craik Farmers payment 2020 in 2021.pdf
- Alaua-Craik Farmers payment 2021 in 2022.pdf
- Alaua-Craik Farmers payment 2022 in 2023.pdf
- Alaua-Leten Farmers Payment 2020 in 2021.pdf
- Alaua-Leten Farmers Payment 2021 in 2022.pdf
- Alaua-Leten Farmers Payment 2022 in 2023.pdf

- Defauasse Farmers payment 2020 in 2021.pdf
- Defauasse Farmers payment 2021 in 2022.pdf
- Defauasse Farmers payment 2022 in 2023.pdf
- Hae-Coni Farmers Payment 2020 in 2021.pdf
- Hae-Coni Farmers Payment 2021 in 2022.pdf
- Hae-Coni Farmers Payment 2022 in 2023.pdf
- Larisula Farmers Payment 2020 in 2021.pdf
- Larisula Farmers Payment 2021 in 2022.pdf
- Larisula Farmers Payment 2022 in 2023.pdf
- Lavateri Farmers Payment 2020 in 2021.pdf
- Lavateri Farmers Payment 2021 in 2022.pdf
- Lavateri Farmers Payment 2022 in 2023.pdf
- Osso-Huna Farmers Payment 2020 in 2021.pdf
- Osso-Huna Farmers Payment 2021 in 2022.pdf
- Osso-Huna Farmers Payment 2022 in 2023.pdf
- Samalari Farmers Payment 2020 in 2021.pdf
- Samalari Farmers Payment 2021 in 2022.pdf
- Samalari Farmers Payment 2022 in 2023.pdf
- Uacala Farmers Payment 2020 in 2021.pdf
- Uacala Farmers Payment 2021 in 2022.pdf
- Uacala Farmers Payment 2022 in 2023.pdf

VVB assessment	**Date:** 08/02/2024

VVB, based on the review of the farmers payment slips and contractual agreement, affirms that PD has duly submitted all pertinent scanned copies of supporting documents to substantiate the income inflow into the community under SDG 2, hence leads to the closure of finding.

CL has been closed.

CL	04	**Section no.**	GS4210 Baguia CO2 Certificate Calculations_Jan 2024	**Date:** 15/01/2024

Description of CL

Based on Tab "*Co2 Certificates 2023*" of the "*GS4210 Baguia CO2 Certificate Calculations_Jan 2024*" supporting document, PD is requested to provide the source for using the value "0.5" for the calculation of number of trees in each MU, planted per year, for MU01 Cropland & MU02 Grassland specifically for *C.Equisetifolia, T.Grandis, D. Nigra, S. Album, S. foetida, E. Urophylla* & *E. alba* and *T. Ciliata* as no values have been provided for the same in percentage of trees in each MU for both the Cropland and Grassland.

Project Developer response	**Date:** 25/01/2024

The Percentage of each tree species in each MU was calculated using the tree numbers from the 2021 audit calculations sheet (see '2021 audit certificates' tab within the "*GS4210 Baguia CO2 Certificate Calculations_Jan 2024*" sheet) to obtain the number of trees per MU, with the same distribution ratio as was used in the previous audit. This allowed comparison with the 2021 calculations, to find the difference in tree numbers and credits issued up to 2021, with the tree numbers and credits calculated using 2023 tree count data. Some trees of species other than mahogany were planted prior to 2016, however these were not previously included in calculations until larger numbers were planted. For these trees, because there was no data from previous years, the percentage of trees in each MU could not be calculated. Instead, the total number of

trees for each of these species was divided evenly between each MU. Therefore, some values for the number of trees have a decimal point.

Documentation provided by Project Developer

This explanation has also been provided in the "*GS4210 Baguia CO2 Certificate Calculations_Jan 2024*" sheet in the "*Co2 Certificates 2023*" tab.

GS4210 WOS Baguia CO2 Certificate Calculations_Jan 2024

VVB assessment	**Date:** 08/02/2024

VVB, based on the justification provided by PD and reviewing the revised ex-post carbon calculation sheet, verifies that the percentage of each tree species in each MU was determined by utilizing the tree numbers from the 2021 audit calculations sheet. This process was employed to establish the number of trees per MU, maintaining the same distribution ratio as utilized in the prior audit. As a consequence, certain values for the number of trees now include decimal points in the calculations.

CL has been closed

CL	05	**Section no.**	GS MR	**Date:** 15/01/2024

Description of CL

VVB, based on the review of the GS MR and the ex-post carbon calculation sheet, have found some inconsistencies in-between the monitoring period and the vintage year calculation. PD has mentioned the calculation and values for the year 2020, 2021 & 2022 in the sheet, whereas in the GS MR, PD has mentioned the vintage year calculation based on 01/04/2021 – 30/11/2023.

PD is requested to provide clarification for the inconsistencies in between the sheet and MR.

Project Developer response	**Date:** 25/01/2024

The "CO2 Certificates 2023" tab lists the years 2010 - 2022, which aligns with the year the trees were planted. Trees begin to be counted 1 year after planting, and their sequestration is attributed to when they were counted. Therefore, the current monitoring period runs from 01/04/2021 - 30/11/2023, which corresponds to the years 2020 - 2022 in the calculations. See the new "Vintages summary" tab added which explains this and has the sequestration values set out in vintage years.

Documentation provided by Project Developer

See the new "Vintages summary" tab in "*GS4210 Baguia CO2 Certificate Calculations_Jan 2024*" sheet.

GS4210 WOS Baguia CO2 Certificate Calculations_Jan 2024

VVB assessment	**Date:** 08/02/2024

VVB, following an evaluation of PD's justification, confirms that the tabulated lists appropriately correspond to the years of tree planting spanning from 2010 to 2022. The counting of trees commences one year after planting, attributing their carbon sequestration to the year of counting. Consequently, the current monitoring period, from 01/04/2021 to 30/11/2023, aligns with the years 2020 to 2022 in the calculations.

CL has been closed

CL	06	**Section no.**	HMI Forest inventory process + Tetun_2023.docx	**Date:** 15/01/2024

Description of CL

1. In compliance with the supporting document "*HMI Forest inventory process + Tetun_2023.docx*", PD has mentioned that "*Training of the HMI staff on the survey methodology will be undertaken at the beginning of the monitoring and measurement program (July to October) in theoretical and practical sessions where techniques of tree measurements, the tally of data and techniques of interviews will be explained and practised*".

   PD is further requested to provide the evidence for the same including the training records, attendance sheets, training certificates, etc.

2. Under the section G of the GS MR, PD shall provide the supporting evidence *i.e.,* Grievance logbook in compliance with the GS Template Guide for Monitoring Report version 1.1, which includes,

"*All disputes, inputs and comments received via the approved CIGM and show how these were responded to and/or mitigated. Please clarify any items that have not been fully addressed and that require follow up action.*".

Project Developer response	**Date:** 05/02/2024

1. 'The Standard Operating Procedures Manual' has been developed to replace the "HMI Forest Inventory Process + Tetun_2023.docx and thus this document should not have been included in the submission. It has now been removed. The SOP is located here: https://drive.google.com/drive/folders/1CHmtQHm6A2Npu0ymtB1sV3jtkSYTWMUP
2. The scanned copy of the logbook sighted by the VVB while in country can now be accessed via the Grievance Mechanism folder: https://drive.google.com/drive/folders/1Qybl8Qc3YS3-PjuOyHniFGw8M9rit6fy
   30 entries were identified by the PD in the logbook. An explanation on how farmer grievances/feedback were resolved/addressed can be reviewed in the Grievance Mechanism folder.

Documentation provided by Project Developer

HMI SOP_Dec 2023.docx

Scanned copy of logbook.pdf

Grievance Doc Monitoring Period 4-2024.docx

VVB assessment	**Date:** 08/02/2024

VVB, upon reviewing the Standard Operating Procedures (SOP) and the grievance logbook submitted by PD, confirms that PD has furnished comprehensive training details for the farmers. VVB furthermore confirms that all grievances received during the monitoring period have been meticulously recorded and documented.

CL has been closed.

CL	07	**Section no.**	D.4, GS MR	**Date:** 15/01/2024

Description of CL

As per the section D.4 of GS MR, it has been stated that,
"*No random sampling approach was required – all trees taller than 1.3m were measured to observe their growth rates.*"

However, during the on-site inspection and verification of data from the raw data sheet "*GS4210 Baguia 2023 tree data by species_ Dec.xlsx*", VVB has been found that trees with DBH less than 20 cm have not been recorded before August 2023.

PD shall clarify on this inconsistency.

Project Developer response	**Date:** 29/01/2024

Prior to August 2023, trees with a circumference over 20cm were measured. After August 2023, all trees with a trunk height over 1.3m were measured, with no minimum circumference. The relevant sections of the MR and PDD have been updated.

Documentation provided by Project Developer

VVB assessment	**Date:** 08/02/2024

VVB, based on the revised PDD and MR, affirms that PD has appropriately updated the relevant sections. The provided explanation clarifies that, as of August 2023, all trees with a trunk height exceeding 1.3m were measured, and there is no stipulated minimum circumference for inclusion in the assessment.

CL has been closed.

CL	08	**Section no.**	GS4210 Baguia 2023 tree data by species_ Dec.xlsx	**Date:** 15/01/2024

Description of CL

VVB based on the review of the "*GS4210 Baguia 2023 tree data by species_ Dec.xlsx*" have found some inconsistencies for the tab "*Average of Tree age (years)*" and "*Average of Trunk Diameter*". Also, the results and certain values provided in the mentioned sheet are hard-coded. This does not allow the readers to trace the underlined formulas and replication of the results.

PD is requested to provide clarification for the same.

Project Developer response **Date:** 25/01/2024

Results were not hard-coded, they were in a pivot table. Input to the pivot table can be seen by right-clicking on the table and selecting "Show field list" which shows the columns used and the calculation applied, or double-clicking on a value, which adds a new tab showing the data used to calculate the value. There was a problem with one value (average of trunk diameter for year 2021 for *S.album*). It was found this was because the pivot table had not refreshed, which was causing an error. It has now been fixed. All values in pivot tables were checked manually by creating new sheets for each species and calculating the average age, average diameter and standard deviation for each year trees were planted.

Documentation provided by Project Developer

- Mahogany data
- Teak data
- Casuarina data
- Sandalwood data
- Rosewood data
- Red cedar data
- Wild almond data
- Eucalyptus data
- GS4210 Baguia 2023 tree data by species_Jan 2024

VVB assessment **Date:** 08/02/2024

VVB, based on the review of the revised species-wise Excel sheet calculations and corresponding pivot tables, verifies that the calculation of the average tree age and trunk diameter has been accurately updated. Each value in the pivot tables underwent manual verification through the creation of new sheets for individual species. Subsequently, the average age, average diameter, and standard deviation for each year of tree planting were meticulously calculated, confirming the accuracy of the data.

CL has been closed.

CL	09	**Section no.**	KML & Shapefiles	**Date:** 15/01/2024

Description of CL

Documentation provided by project participant:
GS4210 T-PreReview_V1.3-Project-Design-Document_HMI 2023.docx
GS 4210 BOUNDARY FILES:
- Timor Leste_SUBDISTR__BAGUIA.shp
- Census Layers.kml
GS 4210_SHAPEFILES DATA:

- Baguia_Rivers_Dissolved.shp
- Fixed Grass Baguia.gpkg
- Fixed Crop Baguia.gpkg
- Baguia ver 3 Cumulative EPA Dissolved.gpkg
- Baguia ver 3 Dissolved per MU per Year.shp
- Cumulative EPA 2010.shp
- Cumulative EPA 2011.shp
- Cumulative EPA 2012.shp
- Cumulative EPA 2013.shp
- Cumulative EPA 2014.shp
- Cumulative EPA 2015.shp
- Cumulative EPA 2016.shp
- Cumulative EPA 2017.shp
- Cumulative EPA 2018.shp
- Cumulative EPA 2019.shp
- Cumulative EPA 2020.shp
- Cumulative EPA 2021.shp
- KPI Annex 2022.docx

VVB, based on review of files, provided by PD confirms that there are some inconsistences:

1. The project area mentioned in the PDD is 4,996 hectares in the “Project area” section, but through GIS analysis of the shapefiles given Fixed Grass Baguia.gpkg and Fixed Crop Baguia.gpkg this figure is significantly low. Later in the PDD in the “Planting area” section the project area is mentioned to be 14,508 hectares which seems like the more accurate figure of the two.

   For better reference see example of details in the following images.

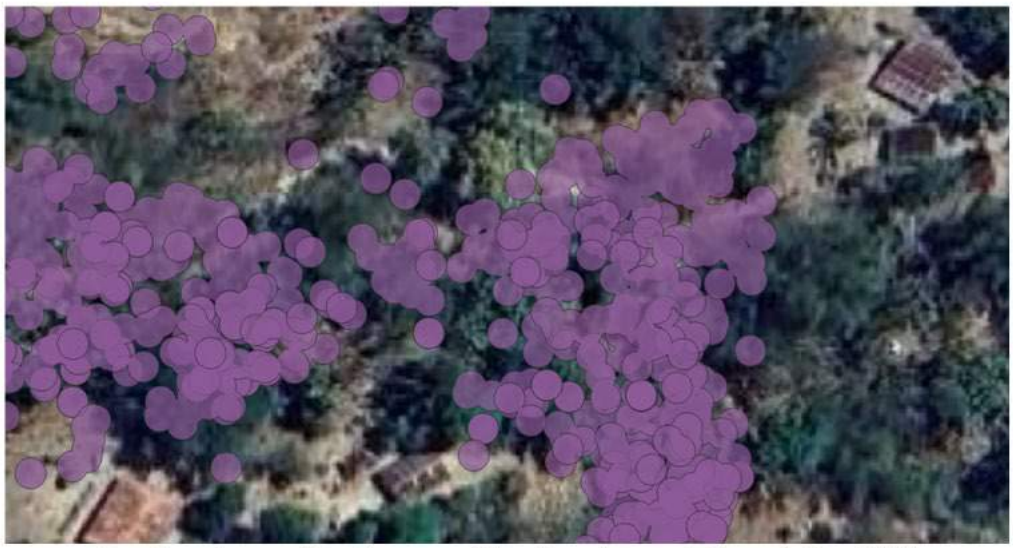
This is the shapefile for the subdistrict of Baguia with a total area of 21399 hectares.

These are the shapefiles for grasslands(green) and croplands(yellow) whose total area is claimed to be 4,996 hectares in the PDD "Project Area" section but is closer to the 14,508 hectares figure mentioned in the "Planting Area" section.

PD is requested to justify the presence of 2 contradicting Project area figures.

2. Cumulative EPA 2022.shp is missing from the provided shapefiles.
   PD is requested to provide the missing shapefile.

3. The cumulative crown area of the trees planted was estimated at 472.1 hectares. This figure is inaccurate and is possibly calculated using overlapping multipolygons of the tree buffers.



Overlapping mulitpolygons of the Baguia ver 3 Cumulative EPA Dissolved.shp shapefile

PD is requested to revise the figure by dissolving the overlapping polygons to get a more accurate figure of the canopy area.

4. It is mentioned that the project started with 12 farmers in 2010 who planted 3000 trees in the first year.
   The Cumulative EPA 2010 shapefile includes 119 unique Farmer names with 3770 trees planted.
   PD is requested to revise the figure in the PDD.

5. The *Land_Use_Forest* shapefile is missing from the given shapefiles and will be required for Forest/Non-Forest analysis.
   PD is requested to provide the missing shapefile.

6. It is mentioned in the PDD that the trees are planted at least 3 meters apart. It is also mentioned that the EPA buffer was created using a 2.5-meter buffer around each planted tree. Since there are multiple instances of overlap in the 2.5-meter buffer, it can be seen that the 3-meter distance between the trees is not consistent. This can be seen in the example image of overlapping polygons attached above.

7. Geographic coordinates of the Indigenous Villages can be seen in Figure 3 of the KPI Annex 2022 document but the shapefile is not provided.
   PD is requested to provide the missing shapefile.

8. There are multiple points that are on roads and on buildings eg. fid 390284, 390316, 390554, 390555 in the Cumulative EPA 2021.shp
   There are similar points in the other Cumulative EPA shapefiles as well.

Multiple points that should represent trees are on Roads and Buildings in this image from the Cumulative EPA 2021.shp

PD is requested to clarify for the same.

Project Developer response	**Date:** 25/01/2024

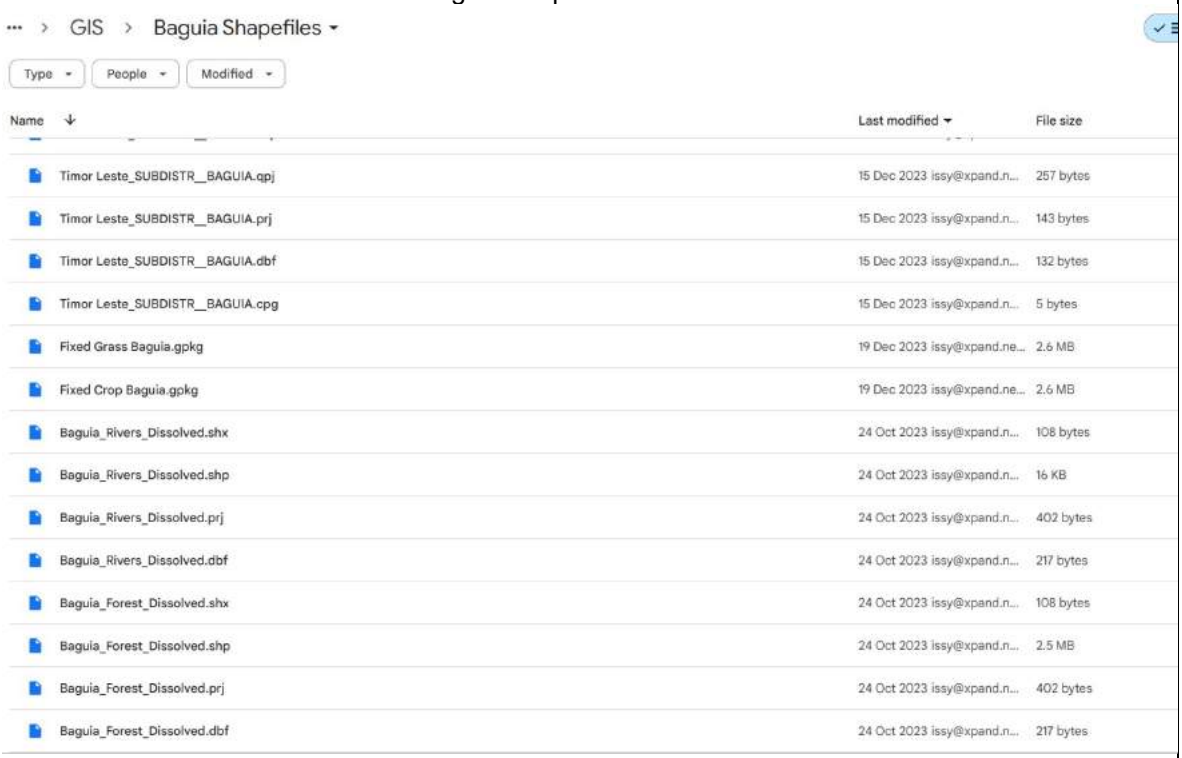
1. The PDD included an old area value that had not been updated. The area has now been updated.

2. File has been added

3. Cumulative file buffers have been dissolved to a single rather than an overlapping one, giving an area of 348.4 ha. Calculations have been updated based on this number. The file can be found in the GIS folder of submission, labelled 'Baguia Jan2024 Cumulative EPA Dissolved'.

4. The founding meeting of the WithOneSeed project in Baguia was held in 2010 and had 12 farmers in attendance. The purpose of this meeting was to explain the concept of the WithOneSeed project and get an agreement to proceed. The 12 farmers agreed to establish the project and committed to talking with other farmers to engage more farmers. At the end of the first year of planting 119 farmers had 3770 trees under management. We acknowledge the wording in this section of the narrative was not as clear as it could have been and in relation to the tree numbers we used an approximation rather than an exact number.

5. We are unable to find this shapefile in our documentation. Please highlight where this shapefile is referenced. Should you need it for a forest/non-forest analysis, the file is the same as 'Baguia_Forest_Dissolved.Shp' which is found in the same folder as the other Baguia Shapefiles. This file shows all areas classified as forest in Baguia. There are multiple files that make up landuse. Please load all files in the Baguia shapefiles folder.



6. The buffers created around each tree are 2.5m radius, 5m diameter. Therefore, even if trees are planted further than 3m apart, their buffers will still overlap if they are less than 5m apart. Farmers are told trees should be planted at least 3m apart, however in reality trees are often planted closer together. Trees are often interspersed with crops and are not planted in rows so they will not follow a regular pattern. It is also difficult to get completely accurate GPS locations for every tree, so tree points might be displaced slightly. This can lead to the map looking like more trees are very close together than in reality.

7. Please refer to the "KPI Annex 2023" document, not the 2022 version. Indigenous villages have not been mentioned and there are no files labelled as such. Labels are of Suco names

(suburb/village) and were manually added from the "Census layers" KML file, which has been provided to the VVB. The label location is not tied to a particular point such as a village centre, they represent an area.

8. It is difficult to get accurate GPS locations for every tree as Timor-Leste has few satellites passing over it, and no ground stations to improve accuracy. Baguia, where this project is located, is very mountainous, which means there is a clear line of sight to fewer satellites here than in other parts of the country, as well as signal interference from the mountains. The auditor observed difficulty in getting adequate signal for a GPS coordinate while visiting farms. This is why some tree points are located on buildings or roads, but in reality trees are not planted there.

Documentation provided by Project Developer

Baguia Jan2024 Cumulative EPA Dissolved
KPI Annex 2023.docx
Baguia Shapefiles

VVB assessment | **Date:** 08/02/2024

1. Necessary changes have been made to the PD by the Project Proponent.

2. Requested file has been provided by the Project Proponent and it meets the requirements.

3. Updated "Baguia Jan2024 Cumulative EPA Dissolved" file has been provided by the Project Proponent. Through GIS analysis in QGIS, VVB has determined that the file is properly dissolved with no overlapping multi-polygons and meets the requirements.

4. Sufficient clarification has been provided by the Project Developer about the discrepancy between the data in the attributes of the shapefiles and in the project description. Any confusion caused by the language used in the PD has now been resolved.

5. Through further GIS analysis in QGIS, VVB has determined that the *Land_Use_Forest* shapefile is the same as *Baguia_Forest_Dissolved.Shp* and the requested shapefile has been provided by the Project Proponent.

6. Sufficient clarification has been provided by the Project Developer regarding the GPS inaccuracies and overlapping buffers.

7. Any confusion caused by the visualization of the village names in "*KPI Annex 2022*" has been resolved. The updated "*KPI Annex 2023*" contains no such issues.

8. Sufficient clarification has been provided by the Project Proponent regarding the GPS inaccuracies as was also observed by the VVB team during the on-site visit.

Based on the review of the files provided by PD, VVB confirm that the KML & shapefiles are in compliance with GS standard requirement, furthermore, the responses and evidenced provide by PD referent to all findings for the KML & shapefiles has been resolved successfully.

CL has been closed.

CL- TR	10	**Section no.**	Section A, GS MR; Section I, FVR	**Date:** 04/03/2024

Description of CL

The project includes plantation of native and naturalized tree species. PP shall specify the percentage of native and non-native species.

Project Developer response | **Date:** 06/03/2024

The percentage of native and naturalised species has been added to Section A of the Monitoring Report. 75% of species are native and 25% are naturalised

Documentation provided by Project Developer

VVB assessment	**Date:** 06/03/2024
VVB, based on the review of the revised MR, confirms that PD has provided the percentage of the native & naturalised tree species present in the project area. **CL has been closed**	

CL- TR	11	**Section no.**	Section D, GS MR	**Date:** 04/03/2024
Description of CL				
PP has considered data and parameter "*Ex-ante Growth Rates based on Literature*" as fixed. PP shall clarify how the parameter is fixed, when the value is being revised at each monitoring period.				
Project Developer response				**Date:** 06/03/2024
Growth rates from literature do not change so they were included in ex-ante parameters. Whether we use the literature growth rate or measured growth rate for a species, for calculations, can change at each monitoring period. This is because literature growth rates are used if there are not many of a species planted, and when more of a species is planted, measured growth rates are used. In this monitoring period, literature growth rates were added for species which previously had not been included in calculations				
Documentation provided by Project Developer				
VVB assessment				**Date:** 06/03/2024
VVB, based on the clarification of PD, affirms that growth rates from literature remain unchanged and have been incorporated into ex-ante parameters. Additionally, literature-based growth rates are employed when the number of a species planted is limited, while measured growth rates are utilized when a greater quantity of a species is planted during this monitoring period. **CL has been closed.**				

Table 3. CAR from this Verification

CAR	01	**Section no.**	GS4210 Baguia CO2 Certificate Calculations_Jan 2024	**Date:** 15/01/2024
Description of CAR				
1) As per sheet "*GS4210 Baguia CO2 Certificate Calculations_Jan 2024,* under tab *Tectona grandis,* the equation $0.093D^{2.462}$ is used for calculating B_{AGB}. However, as per reference, *Siregar (2011),* the equation for calculating AGB is $Y = 0.054^{2.579}$. PD shall rectify the carbon fixation calculation of *T. grandis* based on the correct equation. 2) As per sheet "*GS4210 Baguia CO2 Certificate Calculations_Jan 2024, f*or the species *C. equisetifolia, E. alba, E.urophylla and Toona ciliata,* under cell A8, the average annual growth rate is given only for $B_{AGB\text{-}Tree}$, instead of total biomass. PD shall correct that. 3) As per sheet "*GS4210 Baguia CO2 Certificate Calculations_Jan 2024,* for all the 9 species, the cell for the growth rate is hardcoded. VVB has observed that the data provided is not transparent and traceable, which makes the data unambiguous and untraceable for VVB. PD shall provide the source of the growth rate along with the reference of literature review. 4) As per section D.3 of GS MR, the measured growth rate for given for *S.album* is 0.9735, however as per the sheet "*GS4210 Baguia CO2 Certificate Calculations_Dec 2023 .xlsx"* the value is 0.9706. PD shall provide consistent growth rate in both MR and ex post sheet. 5) VVB has found some inconsistences for the row "Fob ID" of supporting document "*GS4210 Baguia 2023 tree data by species_ Dec.xlsx*". PD is requested to provide the Tree Id in consistent with the Tree O2 application.				

Project Developer response	**Date:** 25/01/2024

1) Under tab *Tectona grandis,* the equation has been updated to use $0.093D^{2.462}$ for BAGB_BGB,i,t, not BAGB as previously stated. The calculation to add BGB to the values has been removed.

2) The labels have been corrected to be for total biomass.

3) The growth rate value comes from average measured values in the "GS4210 Growth Model to Jan 2024" document. The source has been added to the calculations sheet.

4) Growth rate for *S.album* has been updated.

5) There are two FOB ID formats used in TreeO2. The first is the unique number that is stored on each standard FOB which is attached to each tree. These are recorded by the TreeO2 app and stored in the TreeO2 dashboard as either 10 digit numbers or 17 digit numbers. The second number format is generated by the TreeO2 app in the case where a FOB cannot be found on the tree. The fob may either be damaged or has fallen off the tree. This ID is generated while the tree inspector is on-site so that the tree can still be counted and recorded against a Farmer ID. All the standard data gathered during the annual tree count is able to continue to be collected. This ID format contains both letters and numbers. During the next annual tree count, the app-generated ID will be replaced with a standard FOB which will provide the tree with a unique numeric ID. The trees with the app-generated ID will be removed from the TreeO2 dashboard after the following year's annual tree count. There is an issue we have found when importing the FOB IDs into Excel. Excel reads the 17 digit FOB IDs in scientific notation format. This changes the 17 digit FOB ID in Excel into the following format example 6.3105E+11. This has no bearing on any of the calculations or formulas used. The FOB ID is primarily used to allow trees to be attached to individual farmers and is used to know how many trees a farmer has under management and therefore how much annual income from trees each farmer gets paid.

Documentation provided by Project Developer

GS4210 WOS Baguia CO2 Certificate Calculations Jan 2024

VVB assessment	**Date:** 08/02/2024

1) Based on the review of the sheet GS4210 WOS Baguia CO2 Certificate Calculations Jan 2024, VVB found that, for *Tectona grandis,* under monitoring event 4, cumulative B_{AGB_tree} has been calculated using the formula for Total B_{AGB_BGB}. PD shall rectify that.
2) Based on the review of the sheet GS4210 WOS Baguia CO2 Certificate Calculations Jan 2024, VVB found that PD has corrected the label for the species *C.equisetifolia, E. europhylla, and T. ciliata.*

3) Based on the review of the sheet GS4210 WOS Baguia CO2 Certificate Calculations Jan 2024, VVB found that PD has added the source of the growth rate value.

4) Based on the review of section D.3 of revised GS MR and the sheet "GS4210 WOS Baguia CO2 Certificate Calculations_Jan 2024 .xlsx" VVB confirms that the growth value 0.944 is consistently used for the species *S. album.*

5) Based on the review of sheet "*GS4210 Baguia 2023 tree data by species_ Dec.xlsx*", VVB confirms that the response of the PD deems to valid and appropriate.

6) In the sheet GS4210 WOS Baguia CO2 Certificate Calculations Jan 2024, the Allometric equation and reference for the species *D. nigra* is not correct, for *S. album* PD has used the Allometric equation of *S. macrophylla.* PD is requested to rectify it.

CAR is still open.

Project Developer response	Date: 15/02/2024

1. Calculations have been updated
6. Allometric equations have been updated
Monitoring report has been updated to reflect the changes in the calculations

Documentation provided by Project Developer

GS4210 WOS Baguia CO2 Certificate Calculations_Feb 2024
GS4210 T-Monitoring-Report Feb 2024
In the Scientific and Academic Literature folder see new allometric equation reference documents for S.album
"Allometrics from Dwyer et al. 2010"
"Dwyer et al. 2010 source paper of allometric equation"

VVB Assessment	Date: 16.02.2024

VVB, based on the review of the revised Ex-post carbon calculation sheet, confirms that PD has used the Total BAGB_BGB allometric equation for the actual carbon calculation of *Tectona Grandis* and PD has corrected the allometric equation for the species *D. nigra* and for S. album, PD has used a species- specific allometric equation for the carbon calculation.

CAR has been closed

CAR	02	**Section no.**	GS MR	**Date:** 15/01/2024

Description of CAR

Based on the review of the GS MR and the ex-post carbon calculation sheet, VVB has found inconsistencies in-between Table 1 and Table 2 of the GS MR. PD is requested to provide the Amount Achieved for SDG Goal 13 only for this monitoring period i.e., 2021 – 2023, instead of the cumulative value from 2010- 2022.
Accordingly, PD is requested to provide the vintage year calculation along with the GS Buffer reduction in both GS MR and ex-post carbon calculation sheet

Project Developer response	**Date:** 29/01/2024

- Farmer Payments made in 2021 for the 2020 tree growth period: USD$124,857.00
- Farmer Payments paid in 2022 for the 2021 tree growth period: USD$146,719
- Farmer Payments paid from HMI in 2023 for 2022 tree growth period: USD$202,916

For further information on how farmer payments were calculated please refer to our response to CL03. The monitoring report and carbon calculation sheet have been updated to provide vintage year values and monitoring period values.

In relation to the 20% buffer required to be held by Gold Standard following a successful audit, it has been xpand Foundation practice after previous audits to substitute the 20% from the GS4120 project for GS carbon credits from other GS certified projects. It is the intention of xpand Foundation to follow this practice after this audit and substitute the 20% buffer. xpand Foundation can provide documentation from GS in relation to the substitution. The relevant Officer at GS who can attest to this is Mr Keith Black.

Documentation provided by Project Developer

GS4210 WOS Baguia CO2 Certificate Calculations_Jan 2024

VVB assessment	**Date:** 08/02/2024

Based on the review of Table 1 and Table 2 of the revised GS MR and ex-post calculation sheet, VVB confirms that the values in Table 1 and Table 2 are consistent.

CAR has been closed.

CAR	03	**Section no.**	AR-Soil-Carbon-Tool.xlsm	**Date:** 15/01/2024

Description of CAR

Based on the on-site inspection, VVB found that SOC calculation is also included for this monitoring period. PD is requested to provide the supporting document "*AR-Soil-Carbon-Tool.xlsm"* and along with this PD is further requested to provide the details of calculation in the GS MR, accordingly.

Project Developer response	**Date:** 30/01/2024
The soil carbon tool has now been added to the documents folder. SOC has been added to the monitoring report in section D.	
Documentation provided by Project Developer	
AR-Soil-Carbon-Tool.xlsm (in the 'Data and calculations' folder) AR-Soil-Carbon-Tool.xlsx	
VVB assessment	**Date:** 08/02/2024
PD has provided the supporting document "AR-Soil-Carbon-Tool.xlsx" and also added SOC calculation in section D.1 of GS MR. PD has applied the values 2.93 tCO2/ha for Grassland and 0.95 tCO2/ha for Cropland, which deems to be valid and appropriate. **CAR has been closed.**	

CAR	04	**Section no.**	Grievance mechanism	**Date:** 15/01/2024
Description of CAR				
i) Based on the review of grievance register at HMI office, VVB found that total 28 grievances are received for this monitoring event, however in section G.1 of GS MR only 21 grievances is mentioned. PD shall list all the grievances in section G.1. ii) Two farmers have raised concerns regarding the health of their Mahogany trees, citing disease issues and poor survival rates. PD shall provide pest management plan for pest infestation in Mahogony.				
Project Developer response				**Date:** 02/02/2024
1. The scanned copy of the logbook sighted by the VVB while in country, can now be accessed via the Grievance Mechanism folder: https://drive.google.com/drive/folders/1Qybl8Qc3YS3-PjuOyHniFGw8M9rit6fy 30 entries were identified by PD in the logbook. An explanation on how farmer grievances/feedback were resolved/addressed can be reviewed in the Grievance Mechanism folder. 2. Information about management of the mahogany shoot borer pest was already included in the SOP document. Further information has been added to this. Staff have already been told how to manage the pest and they have passed this information on to farmers, as reflected in the Grievance Doc Monitoring Period 4-2024.docx.				
Documentation provided by Project Developer				
Scanned copy of logbook.pdf Grievance Doc Monitoring Period 4-2024.docx HMI SOP_Dec 2023 (pg.53)				
VVB assessment				**Date:** 08/02/2024
1) Based on the review of grievance logbook and revised GS MR, VVB confirms that PD has now correctly included all the grievances in GS MR. 2) Based on the review of HMI SOP_Dec 2023 and Grievance Doc Monitoring Period 4-2024.docx VVB found that PD has included pest management plan for the pest infestation in Mahogany and the information has been passed to farmers. **CAR has been closed.**				

CAR	05	Section no.	Editorial	Date: 15/01/2024

Description of CAR

1) Under GS MR and carbon calculation sheet, PD shall write the scientific name of the species in italics and specific epithet should be in lowercase. PD shall also provide consistent scientific name in carbon calculation sheet.

2) As per section D.4 of the GS MR it has been stated that the tree O2 app record tree circumference at 1.3 m. However, from the raw data sheet it has been found that the Tree O2 app records tree circumference under the tab trunk diameter. PD shall change the function name as it creates confusion.

Project Developer response — **Date:** 29/01/2024

1. Species names have been updated in the carbon calculation sheet and monitoring report.

2. The TreeO2 app is used for multiple projects, some of which enter diameter into the trunk diameter field. It is not always possible to get enough diameter tapes to the project area for all staff to use, so the circumference is measured for this project and entered into the trunk diameter field. The raw data sheet shows the data as it is exported from TreeO2, to allow comparison, so the label was not changed to circumference in this document. The sheet "GS4210 Baguia 2023 tree data by species_Jan 2024" has the labels changed and a column for calculating diameter from the circumference. The raw data sheet "GS4210 Baguia 2023 tree count raw data - 406,071 total trees" has now been updated to say circumference instead of diameter.

Documentation provided by Project Developer

GS4210 WOS Baguia CO2 Certificate Calculations_Jan 2024

Baguia 2023 tree count raw data - 406,071 total trees.xlsx

GS4210 Baguia 2023 tree data by species_Jan 2024.xlsx

VVB assessment — **Date:** 08/02/2024

1) Based on the review of GS MR and Carbon calculation sheet, VVB confirms that PD has updated the species name as per the raised CAR.

2) Based on the review of the carbon calculation sheets VVB confirms that the sheet "*GS4210 Baguia 2023 tree data by species_Jan 2024*" has the labels changed and a column for calculating diameter from the circumference has been added. The raw data sheet "GS4210 Baguia 2023 tree count raw data - 406,071 total trees" has now been updated to say circumference instead of diameter.

CAR has been closed.

CAR	06	Section no.	C of the GS MR	Date 15/01/2024

Description of CAR

In the referred section of GS MR, no information has been provided on methodological equations, approaches and sample calculations used to calculate the following parameter:

- Project Emissions
- Leakage
- Net GHG removals.

Project Developer response — **Date:** 30/01/2024

The GS template guide TGuide-PerfCert_V1.1-Monitoring-Report.pdf does not state that methodological equations, approaches and sample calculations used to calculate the parameters are required in section C of the monitoring report.

SECTION C. DESCRIPTION OF MONITORING SYSTEM APPLIED BY THE PROJECT

Provide a description of the monitoring system in accordance with the description of monitoring system and the monitoring plan in the Design Certified PDD.

Documentation provided by Project Developer

VVB assessment	**Date:** 08/02/2024

VVB confirm that the section C of the GS MR follows GS MR template instructions. Furthermore, VVB confirms that PD has provided the relevant monitoring information in their SOPs and monitoring plan.

CAR has been closed.

CAR	07	**Section no.**	GS MR	**Date** 15/01/2024

Description of CAR

1. Based on the review of the GS MR and registered PDD, VVB has found that some data & parameters for ex-ante and data & parameters monitored mentioned in the registered PDD is missing in the GS MR.

2. For Section E.4. of the GS MR, PD shall provide the values for "*project estimate*" as per the registered PDD.

3. Under the section E.5, PD shall provide vintage wise comparison for the whole monitoring period. PD shall revise the section as per GS Template Guide for Monitoring Report, version 1.1.

4. Under the section F, Safeguards principles are not in compliance with the GS Template Guide for Monitoring Report, version 1.1. PD shall revise the section accordingly.

5. PD is requested to provide the revised PDD on track change version.

Project Developer response	**Date:** 29/01/2024

1. Data and parameters for ex-ante and monitored values are now consistent between the PDD and MR.

2. Section E.4 has been updated

3. Approved PDD only had estimates for SDG 13 up to 2020. New estimates have been added to the PDD, but these are based on real numbers so also can't be used for comparison.

4. Section F has now been updated in the monitoring report as per requirements. This also required updates to the PDD. Please refer to both when reviewing. Supporting documentation can be found in the 'Safeguarding' folder.

5. A folder of tracked change documents has now been provided.

Documentation provided by Project Developer

4.

- xFA Policy Human Rights.pdf

- 2022 GESI Manual for Rai Matak + HMI. Tetun.docx
- 2022 GESI Manual for Rai Matak + HMI-English.docx
- 2022 Gender training.jpeg
- 2021 G&I Workshop Debrief .pdf
- 2022 Participants list_GALS training_HMI include.pdf
- 2021 Safeguarding Workshop - Jan21-Baguia.pdf
- 2022 SAFEGUARDING BRIEFING FOR HMI and Rai Matak Team.ppt
- 2021 Safeguarding + Child Protection Training.jpg
- 2022 Safeguarding training refresh.jpeg
- 2023 Safeguarding training attendance-HMI included.pdf
- Xpand Foundation _ ACNC-AIS 2021.pdf
- Xpand Foundation _ ACNC-AIS 2022.pdf
- Xpand Foundation _ ACNC- AIS- 2023.pdf
- Financial Report- Year ending 30 June 2021.pdf
- Financial Report- Year ending 30 June 2022.pdf
- Financial Report- Year ending 30 June 2023.pdf
- ACNC Registration.pdf
- HMI-RM contract template.docx

5. Folder "Track changes ON"

VVB assessment	**Date:** 08/02/2024

Based on the review of GS MR and Registered PDD VVB confirms that,

1) PD has updated section E.4 of GS MR and provided values for project estimate as per the revised PDD.

2) Based on the review of GS MR and registered PDD, VVB confirms that the response of PD is valid and appropriate.

3) Based on the review of supporting documents provided in the folder "Safeguarding", VVB confirms that PD has correctly revised section F of GS MR.

4) PD has now provided the track change version of PDD and MR.

CAR has been closed.

Table 2. FAR from this verification

FAR	01	**Section no.**		**Date:**15/01/2024
Description of FAR				
VVB, based on the review of file, "*Confirmed Tree Count for Farmer Payment*" have identified discrepancies between the manual counting and the Tree O2 counting. PD attributes that this variance is due to potential technical errors and instances where farmers have lost their phones containing the data. However, VVB has conducted thorough verification, considering actual Diameter at Breast Height (DBH), height, and tree counts based on the respective species during on-site inspections. The root cause for such observation needs to be identified and corrective action shall be taken by the PD for future improvement of the QA/QC of the field measurement including cross-check of the data. While doing so, PD shall clarify how the permanence is ensured during the monitoring period. However, this is further needed to be rechecked in the next periodic verification to ensure the accuracy of the data and parameters.				
Project Developer response				**Date:** 30/01/2024

Noted	
Documentation provided by Project Developer	
VVB assessment	**Date:**

APPENDIX 2: Competence Certificates

Carbon CHECK

Carbon Check (India) Private Limited

Certificate of Competency

Ms. Ahalee Bhowmik

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 Leader	☒ Technical Expert
☐ Technical Reviewer	☐ Health Expert	☐ Gender Expert	☐ Plastic Waste Expert
☐ CCB Expert	☐ Legal Expert	☐ Financial Expert	☐ Environmental, Health and Safety financial matters
☐ SDG+	☐ Social no-harm(S+)	☐ Environment no-harm(E+)	
☒ Local Expert for India and Bangladesh			

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	☐ TA 16.1		

Issue Date
5th December 2023

Expiry Date
31st December 2024

Priya Suman

Ms. Priya Suman
Compliance Officer

Mr. Sanjay Kumar Agarwalla
Technical Director

Revision History of the document:

Revision date	Summary of changes
Dec 2023	Initial Adoption

CCIPL_FM 7.9 Certificate of Competency_V4.0_112023
[1] Please refer to previous version of FM 7.9 for the revision history

Carbon CHECK

Carbon Check (India) Private Limited

Certificate of Competency

Mr. Maniruddin Dhabak

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 Leader	☒ Technical Expert
☐ Technical Reviewer	☐ Health Expert	☐ Gender Expert	☐ Plastic Waste Expert
☐ CCB Expert	☐ Legal Expert	☐ Financial Expert	☐ Environmental, Health and Safety financial matters
☐ SDG+	☐ Social no-harm(S+)	☐ Environment no-harm(E+)	
☒ Local Expert for India and Bangladesh			

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	☐ TA 16.1		

Issue Date

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Priya Suman

Ms. Priya Suman
Compliance Officer

Mr. Sanjay Kumar Agarwalla
Technical Director

Revision History of the document:

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Dec 2023	Initial Adoption

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[1] Please refer to previous version of FM 7.9 for the revision history

Carbon CHECK

Carbon Check (India) Private Limited

Certificate of Competency

Ilidio Nelson Belarmino

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 Leader	☐ Technical Expert
☐ Technical Reviewer	☐ Health Expert	☐ Gender Expert	☐ Plastic Waste Expert
☐ SDG+	☐ Social no-harm(S+)	☐ Environment no-harm(E+)	☐ CCB Expert
☐ Financial Expert	☒ Local Expert for Timor-Leste		

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
09th June 2023

Expiry Date
08th June 2024

Mr. Vikash Kumar Singh
Compliance Officer

Mr. Amit Anand
CEO

CCIPL_FM 7.9 Certificate of Competency_V2.1_012023

Carbon CHECK

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 Leader	☒ Technical Expert
☒ Technical Reviewer	☐ Health Expert	☐ Gender Expert	☒ Plastic Waste Expert
☒ CCB Expert	☐ Legal Expert	☒ Financial Expert	☒ Environmental, Health and Safety financial matters
☒ SDG+	☒ Social no-harm(S+)	☒ Environment no-harm(E+)	

☒ Local Expert for India/RSA and Spanish speaking 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	☐ TA 9.2	☐ TA 10.1	☒ TA 13.1	☒ TA 13.2
☒ TA 14.1	☒ TA 15.1	☐ TA 16.1		

Issue Date

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Expiry Date

31st December 2024

Priya Suman

Ms. Priya Suman
Compliance Officer

Mr. Sanjay Kumar Agarwalla
Technical Director

Revision History of the document:

Revision date	Summary of changes
2022[1]	Annual revision
Jan 2023	Annual revision
Dec 2023	Change in the template due to revision in TA and function

CCIPL_FM 7.9 Certificate of Competency_V4.0_112023

[1] Please refer to previous version of FM 7.9 for the revision history