THE NIHT TOPAIYO REDD+ PROJECT

Document Prepared by AENOR INTERNACIONAL S.A.U.

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Summary:

As of 2014, Papua New Guinea became the world's sole largest exporter of tropical timber wood, exporting 3.8 million cubic meters of tropical wood that year (Mittal, 2016). Every year, the region loses approximately 1.4% of its forested land (Shearman, et al., 2008), and with it, critical habitat to some 5% of the world's biodiversity (Food and Agriculture Organization, 2016) and alongside a massive global carbon sink.

The NIHT Topaiyo REDD+ Project is located in the forested areas of New Ireland and East New Britain in Papua New Guinea, where NIHT Inc. has partnered with the traditional landowners of New Ireland and East New Britain to put an end to deforestation initiated by industrial logging in the region. What was planned originally as a traditional timber operation, managed in concession by NIHT Inc., has evolved into a forest protection project through this REDD+ Project in agreement with the clans, since they held the ownership of the land.

The project plans to generate the majority of its emissions reductions through the avoidance of the initial planned industrial commercial timber operations. Commonly, after industrial logging, clan members use to take advantage of the road infrastructure left by the logging companies to access the forest looking for farm lands, wood, firewood, etc. In conclusion, this is a REDD project that avoids planned degradation (by legally sanctioned commercial harvest) and unplanned deforestation (by secondary agents).

The project maintains integrity of its forest through forest patrols and monitoring, inventories, sustainable land management and community engagement. Additionally, the project aims to alleviate clan's pressures on the forests through financial support. By providing alternative livelihoods and income source of carbon finance, it will be possible to avoid conducting industrial-scale commercial timber harvesting in the area, and instead provide revenues to communities through conservation and sustainable management initiatives. This project activity, beyond protecting local forests and biodiversity, contribute to social and economic development.

The project is a grouped project and will include multiple PAIs within a designated geographic area. During this monitoring period, the first Project Activity Instance (PAI) was added to the grouped project. The land in the PAI is under the ownership of the Kamlapar Incorporated Landowner Group (ILG) in the Konoagil Rural Local Level Government (LLG). In 2018, the Kamlapar ILG and NIHT entered into a Carbon Credit Contract, to partner in developing the timber assets owned by the Kamlapar ILG for carbon credit. This PAI adds 10,443 hectares of tropical lowland and highland forest to the grouped project.

The purpose of the validation and verification was the independent evaluation of the project's compliance with the following normative documents VCS Standard v4.0 issued 19 September 2019, VCS Program Guide v4.0 issued 19 September 2019, Program Definitions v4.0 issued 19 September 2019, AFOLU Non-Permanence Risk Tool v4.0 issued 19 September 2019, VM0009 Methodology for Avoided Ecosystem Conversion V3.0 issued 6 June 2014; and the assessment of the ex-post monitored anthropogenic GHG emissions reductions and/or removals that have occurred as a result of the project's activities.

The process was performed through a combination of desk review, interviews and communications with relevant personnel and remote inspections.

During the validation and verification 4 CARs and 19 CLs were reported. All these issues where appropriately closed by means of corrections, more clear explanations and other supported documents. Additionally, 1 FAR was raised for the next verification event.

AENOR carried out a final validation and verification report and deems with reasonable level of assurance that the project complies with all of the validation and verification criteria for VCS. The assessment team has no restrictions or uncertainties with respect to the compliance of the project with the validation and verification criteria. Hence, the audit team concludes that the GHG emissions reductions or removals, for the lands included in the project boundary, have been quantified in accordance with VCS rules.

AENOR can confirm that through the avoidance of carrying out exploitative industrial commercial timber harvesting in the project area and the cascading deforestation that follows, the project expects to generate 55,090,789 tons of CO_2e emissions reductions across the 30 year crediting period (1 June 2017 to 31 May 31 2047), assuming future additional PAIs over the project lifetime. During this monitoring period (01 June 2017 to 31 December 2019), with Kamlapar ILG added as the unique PAI, the project has accurately achieved and free of material errors 1,680,306 tCO_2e of net emissions reductions. A buffer discount rate of 21% was applied, resulting 1,327,442 VCUs eligible for issuance.

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1 INTRODUCTION

1.1 Objective

The purpose of the validation and verification audit activity was to conduct an independent assessment of the project in order to determine whether the project complies with the validation and verification criteria as set out in the guidance documents listed in Section 1.2 of this report, including the monitoring procedures; and that the GHG emission reductions and removals reported in the monitoring report are materially accurate.

1.2 Scope and Criteria

The scope of the validation and verification audit is to validate and verify the emissions reductions of the proposed project in Papua New Guinea against the Verified Carbon Standard, the identified methodology and associated tools, for the crediting period from 1 June 2017 to 31 May 31 2047 and the first monitoring period from 01 June 2017 to 31 December 2019.

The objectives of this audit included a validation of the projects estimated emission removals and the verification of the achieved emissions removals with the Verified Carbon Standard requirements and any additional requirements of VCS AFOLU projects, besides the assessment of the additionality and the non-permanence risk assessment report.

The scope was defined as follows:

- The project and its baseline scenarios.
- The physical infrastructure, activities, technologies and processes of the project.
- The GHG sources, sinks and/or reservoirs those are applicable to the project.
- The types of GHGs applicable to the project.
- The project crediting period.
- The project first monitoring period.

In accordance with Section 4.1.8 of the VCS Standard, the criterion for validation and verification was the VCS Version 4, including the following documents:

- VCS Standard v4.0 issued 19 September 2019
- VCS Program Guide v4.0 issued 19 September 2019
- Program Definitions v4.0 issued 19 September 2019
- AFOLU Non-Permanence Risk Tool v4.0 issued 19 September 2019

Unless otherwise indicated, the assessment was performed against the most recent version of the relevant VCS documents.

1.3 Level of Assurance

The assessment was 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 assertions are materially correct and is a fair representation of the GHG data and information.

All the versions of the validation and verification report were subjected to an independent internal technical review before being submitted to the client to confirm that all validation activities had been completed according to the pertinent AENOR instructions required. The technical review was performed by a technical reviewer qualified in accordance with AENOR's qualification scheme for VCS validation and verification.

Name	Role in the Team
Juan Carlos Gómez	Lead auditor
Carlos Jiménez	Auditor
Elena Llorente	Technical expert
José Luis Fuentes	Technical reviewer and Project Manager

José Luis Fuentes is the manager of the Climate Change Unit of AENOR. He is a Forestry Engineer and has a Master in Business Administration and a Post-Graduate in Environmental Management. He has more than 15 years of experience in auditing, consulting and training activities related to environmental and carbon management projects. Jose Luis has actively participated in the audit of international sustainable development projects in several carbon schemes, such as the Clean Development Mechanisms (CDM), Verified Carbon Standard (VCS), Climate, Community and Biodiversity Standards (CCB), Gold Standard (GS) and carbon footprints (ISO 14067 and ISO 14064). Jose Luis has extensive technical knowledge about the regulatory framework, policies and technical provisions emanating from the Paris Agreement, the Kyoto Protocol and the Conferences of the Parties.

Juan Carlos Gómez has more than 5 years of professional experience in climate change. He is a Forestry Engineer and holds Master in Sustainable Development and Corporate. He has developed his entire career in the field of climate change. He is an expert in the development of climate change mitigation and adaptation policies and has worked in LATAM countries and Africa, auditing REDD+ under VCS and CCB, and forestry projects under the CDM and JI.

Carlos Jimenez is a Forestry Engineer and holds Master in Rural Development. He has 8 years of experience in natural resources management and sustainable development. His experience covers working with public and private sector, as well as civil society organizations; with focus in forest risk commodities, community-based development projects, and consultancy on ecosystem services. Since 2016 he works as an auditor of sustainable forest management (FSC) and forest carbon certification schemes (VCS, CCB) in Latin America and Asia.

Elena Llorente has a degree in Environmental Sciences and more than 14 years of professional experience in climate change and sustainability projects. She has worked for the UNFCCC, specifically in the management of carbon and climate change as an auditor and technical reviewer of projects and programs of mitigation activities under different types of carbon standards such as CDM and JI of the UNFCCC, VCS and Gold Standard.

1.4 Summary Description of the Project

As of 2014, Papua New Guinea became the world's sole largest exporter of tropical timber wood, exporting 3.8 million cubic meters of tropical wood that year (Mittal, 2016). Every year, the region loses approximately 1.4% of its forested land (Shearman, et al., 2008), and with it, critical habitat to some 5% of the world's biodiversity (Food and Agriculture Organization, 2016) and alongside a massive global carbon sink.

The project is located in the forested areas of New Ireland and East New Britain in Papua New Guinea, where NIHT Inc. has partnered with the traditional landowners of New Ireland and East New Britain to put an end to deforestation initiated by industrial logging in the region. What was planned originally as a traditional timber operation, managed in concession by NIHT Inc., has evolved into a forest protection project through this REDD+ Project in agreement with the clans, since they held the ownership of the land.

The project plans to generate the majority of its emissions reductions through the avoidance of the initial planned industrial commercial timber operations. Commonly, after industrial logging clan members use to take advantage of the road infrastructure left by the logging companies to access the forest looking for farm lands, wood, firewood, etc. In conclusion, this is a REDD project (VCS Sectorial Scope 14 Agriculture, Forestry and Other Land Use - AFOLU) that avoids planned degradation (by legally sanctioned commercial harvest) and unplanned deforestation (by secondary agents), so it is classified as Avoided Unplanned Deforestation and Planned Degradation (AUD) according to the methodology (VM0009 Methodology for Avoided Ecosystem Conversion V3.0 issued 6 June 2014).

The project maintains integrity of its forest through forest patrols and monitoring, inventories, sustainable land management and community engagement. Additionally, the project aims to alleviate clan's pressures on the forests through financial support. By providing alternative livelihoods and income source of carbon finance, it will be possible to avoid conducting industrial-scale commercial timber harvesting in the area, and instead provide revenues to communities through conservation and sustainable management initiatives. This project activity, beyond protecting local forests and biodiversity, contribute to social and economic development.

The project is a grouped project and will include multiple PAIs within a designated geographic area. During this monitoring period, the first Project Activity Instance (PAI) was added to the grouped project. The land in the PAI is under the ownership of the Kamlapar Incorporated Landowner Group (ILG) in the Konoagil Rural Local Level Government (LLG). In 2018, the Kamlapar ILG and NIHT entered into a Carbon Credit Contract, to partner in developing the timber assets owned by the Kamlapar ILG for

carbon credit. This PAI adds 10,443 hectares of tropical lowland and highland forest to the grouped project.

Through the avoidance of carrying out exploitative industrial commercial timber harvesting in the project area and the cascading deforestation that follows, the project expects to generate 55,090,789 tCO_2e emissions reductions across the 30 year crediting period (1 June 2017 to 31 May 31 2047), assuming future additional PAIs over the project lifetime. During this monitoring period (01 June 2017 to 31 December 2019), with Kamlapar ILG added as the unique PAI, the project has accurately achieved and free of material errors 1,680,306 tCO2e of net emissions reductions. A buffer discount rate of 21% was applied, resulting 1,327,442 VCUs eligible for issuance.

2 VALIDATION AND VERIFICATION PROCESS

2.1 Method and Criteria

The validation and verification was performed through a combination of document review, interviews with relevant personnel and remote inspections, as discussed in Sections 2.2 through 2.4 of this report. At all times, the project was assessed for conformance to the criteria described in Section 1.2 of this report. As discussed in Section 2.5, findings were issued to ensure that the project was in full conformance to all requirements.

A project specific sampling plan was developed to guide the validation and verification auditing process to ensure efficiency and effectiveness. The purpose of the sampling plan was to present a risk assessment for determining the nature and extent of the validation and verification procedures necessary to ensure the risk of auditing error was reduced to a reasonable level. The validation and verification sampling plan methodology was derived from all items in our auditing process stated above. Specifically, the sampling plan utilized the VCS guidance documents and ISO 14064-3. Any modifications applied to the validation and verification sampling plan were made based upon the conditions observed for monitoring in order to detect the processes with highest risk of material discrepancy.

The validation activities in which risks were assessed were the evaluations of the applicability, baseline scenario, additionality, leakage, non-permanence risk analysis, monitoring system, safeguards, etc. In case of the verification, the accuracy of GHG emission reduction and removal calculations was reviewed, according to the monitoring results, as well as the quality of the related evidences.

The carbon stock changes, and the land used classes in the project area were also 100% verified and crosschecked with validated values. For data provided for the reference region, AENOR requested onsite samples of data.

AENOR carried out a deep and meticulous review of the spreadsheets in order to verify the correct application of the methodology (formulae, equations, etc.) and checked that data required calculating the GHG removals were appropriately provided. Based on the assessment carried out, AENOR confirms with a reasonable level of assurance that the claimed emission reductions are free from material errors, omissions, or misstatements.

AENOR confirms that sufficient evidence was presented for the reported net anthropogenic GHG emission reductions and that there is a clear audit trail that contains the evidence and records that validate the stated figure in this verification report since:

- Sufficient evidence available: The project participant has provided the 100% of data used in the calculations to achieve the final amount of GHG emission reductions reported.

- Nature of evidence: The raw data were collected from reliable sources. They are detailed in the project documents and have been provided to the verification team and were checked during the interviews.

- Cross-checked evidence: AENOR cross-checked the collected information through interviews with stakeholders and reproducing calculations.

Hence, AENOR confirms that the stated figures in the Project Description and Monitoring Report are correct and confirms that is able to certify net anthropogenic GHG removals based on verifiable and reliable evidence.

2.2 Document Review

The Project Description and Monitoring Report submitted by the Project Proponent (PP) were reviewed against the approved methodology and against VCS requirements. Additional background documents related to the project design, baseline, additionality, ownership, start date, were also made available during audit, along with the non-permanence risk report. Other documents reviewed included data from monitoring, carbon rights contracts, management agreements, maps and aerial images, monitoring and grievance SOPs, biomass and carbon calculation spread sheets, and responses to Corrective Action Requests (CARs) and Clarifications (CLs). All documents were provided digitally to the audit team.

For a listing of all documents received from the client for this verification, please see Appendix I.

2.3 Interviews

Interviews were performed as part of the validation and verification process in order to confirm and verify the information provided in the documents (see Appendix I). The AENOR audit team met with individuals with various roles in the project. This included a series of interviews with in-country staff that support the mission of the project. In addition, interviews discussions were conducted with project members, leaders of the local communities and other project-related stakeholders. The following table summarizes the interviews carried out during the process.

Stakeholder	Interview attendees	Topics	Date
NIHT EcoPartners	- Joel DeBoer, EcoPartners - Sam Frankel, EcoPartners - Stephen Strauss, NIHT - George Gates, NIHT	- Kick off call. - PD, MR and background evidences.	21st April, 2020
		- Carbon accounting	19th May, 2020
Local representatives and traditional community leaders of the PAI (Kamlapar ILG)	- Matmon Unde, ILG Chief - Gideon Unde, ILG Chairman - David Keseba, ILG Business Manager	- Socialization process, FPIC, customary rights. - Expectations and benefits. - Participation in project design and community commitment. - Social and environmental impacts. - Benefit sharing mechanism. - Grievances SOP and Project committees.	21st May, 2020
PAI (Kamlapar ILG) Project committee members	- Gideon Tomolia, Membership Committee - Alex Eremas, Luke Raphael, Distribution Committee - Ome Keseba, Community Development Committee - David Keseba, Finance Committee - Joel Baumat, Grievance Committee		
Kamlapar clan members participating in project socialization, including women group	- Tobung, Young, Jophet, Seth, Alice, Everlyn, Lynn Kalohu, Marksie, Paul Toinuk.		
Forest inventory crew	- John Daniels, timber cruise coordinator - Allan Penias, timber cruise member - Ivy Kiel, former timber cruise member and current forester from the PNG Forest Authority	- Timber cruise role. - Training of the cruise. - Development of the activity for the inventory and monitoring period. - Measurement procedures. - Cross-check of plots. - Quality assurance. Limitations in process.	19th May, 2020
Topaiyo Holdings representative	- Lennie Darrius, Topaiyo Holdings former officer - George Kinavi, Topaiyo Holdings former officer	- Background of the organizations involved. - Project ownership and start date. - Expectations and benefits. - Social and environmental impacts. - Benefit sharing mechanism.	20th May, 2020
Local governmental authority linked to the project.	- Gideon Bogosia, Economic Development CEO of New Ireland Province	- Role of the institution. - Expectations and benefits. - Participation in project design. - Legal requirements. - Social and environmental impacts. - Benefit sharing mechanism. - Grievances SOP. - Project performance monitoring.	28th May, 2020
CCDA (Climate	- Eunice Dus, Senior REDD+	- Role of the institution.	1st June,

Stakeholder	Interview attendees	Topics	Date
Change and Development Authority in Papua New Guinea)	Officer - Mitigation Division in CCDA - Sonia Baine, REDD+ Officer - Mitigation Division in CCDA	- Expectations and benefits. - Project socialization with clan. - Participation in project design. - Legal requirements. - Social and environmental impacts. - Benefit sharing mechanism. - Grievances SOP. - Project performance monitoring. - Risks in the long run. - Double accountability avoidance.	2020

Due to the COVID-19 pandemic situation, all interviews were carried out through videoconference, as explained in Section 2.4. The interviews were carried out between April 21st and June 1st, 2020.

2.4 Site Inspections

Due to the exceptional situation caused by the COVID-19 crisis and the travel restrictions established by governments for safety reasons, it was not possible to carry out a site visit as part of the verification process of the project.

In accordance with VERRA's COVID-19 Travel Guidance for Projects (dated 18 March 2020) and since that the VCS Programs does not explicitly mandate site visits, an exemption of the site was requested on the ground of the crisis situation. This exemption was for submitted by mail to Verra on 6 April 2020, regarding the Verra guidance on site visits for VVBs, specifically exemption from Sections 3.2.6 (recommendations on site visits), 3.4 and 5.1 (guidance as it relates to in-person interviews) of the VCS Validation and Verification Manual v3.2. While VCS rules do not explicitly require that VVBs conduct a site visit, or in-person interviews, Section 4.2.1 of the VCS Standard, v4.0 does require that validation and/or verification be conducted to a reasonable level of assurance.

Upon review of the circumstances described, Verra was able to grant the project an exemption for the validation onsite visit of The NIHT Topaiyo REDD+ Project, received by mail on 8th April 2020 and signed by Sam Hoffer, Verra Programs Director.

According to this, AENOR, as VVB, proposed to carry out a remote verification audit that ensured the achievement of the assurance level required by VCS program. The remote audit was based on the following auditing techniques:

- Document review of the information provided in the in the PD, MR and supporting information and evidence provided by the PP (carbon calculations, GIS database, agreements, measurements and training records, etc.).
- Teleconference with stakeholders (see section 2.3 Interviews).
- Remote check of field aspects, such as plot measurements, trainings, forests conditions. Although the project has been running form 1 June 2017, the only current project activity implemented is the avoidance of commercial industrial logging in the forested area, since the other activities are dependent on the issuance and sale of carbon credits.
- Cross checks amongst the above evidences to ensure consistency.

- Review of the appropriateness of formulae and accuracy of calculations, based on the selected methodologies, tools and other applicable methodological regulatory documents.

2.5 Resolution of Findings

All documentation provided by the PP was assessed against the applicable version of the relevant VCS guidance document. Several clarification requests (CL) and corrective action requests (CAR) were raised and submitted to the PP, which addressed them either by providing to the audit team the requested information or by making the appropriate corrections. Updated versions of the documentation were submitted by the PP and the audit team reassessed them against the guidance documentation. This process was repeated iteratively until all CL and CAR were fully closed. Specifically, 13 CLs and 2 CARs were raised for validation and 6 CLs and 2 CARs for verification.

All findings issued by the AENOR audit team during the verification process have been closed. In accordance with Section 4.1.13 and 4.1.14 of the VCS Standard, all findings issued during the validation and verification process, and the inputs for their closure, are described in Appendix II and Appendix III of this report.

2.5.1 Forward Action Requests

One FAR was raised for the next verification event:

1. The PP was requested to provide evidences of the meetings carried out with clan members and other stakeholders, as well as the trainings held. Although the PP provided a list of the events and some pictures, which were crosschecked with the stakeholders consulted, for upcoming verifications the PP should consider getting additional and systematic evidences of this meetings (e.g. attendee's lists, pictures, agreements or gathering minutes, etc.) in order to strengthen the documental evidence of dates, attendees, topics and conclusions.

3 VALIDATION FINDINGS

3.1 Project Details

3.1.1 Project type, technologies and measures implemented, and eligibility of the project

This project falls under VCS Sectorial Scope 14 "Agriculture, Forestry and Other Land Use" in the category of REDD (AFOLU-REDD+). The project plans to generate its emissions reductions through the avoidance of the initial planned industrial commercial timber operations. Commonly, after industrial logging clan members use to take advantage of the road infrastructure left by the logging companies to access the forest looking for farm lands, wood, firewood, etc. In conclusion, this is a REDD project that avoids planned degradation (by legally sanctioned commercial harvest) and unplanned deforestation (by secondary agents). According to methodology (VM0009 Methodology for Avoided Ecosystem

Conversion V3.0 issued 6 June 2014), this corresponds to a baseline type F-P1.b (Avoided Unplanned Deforestation and Planned Degradation - AUD).

Besides this, the project area qualifies as forest, and that the project accounting area was in a forested status for at least 1 0 years prior to project start.

This is a grouped project within the designated geographic area of New Ireland and East New Britain, with the first PAI representing the Kamlapar Incorporated Landowner Group (ILG) in the Konoagil Rural Local Level Government (LLG).

3.1.2 Project design

The project is a grouped project that will eventually include multiple PAIs within the designated geographic area. The project is beginning with only the Kamlapar PAI for this validation and initial monitoring period. There are twelve additional ILGs that have committed to participating in the project but plan to be added as PAIs in future verification periods reports. The twelve ILGs that have committed to participating in the carbon project are also located in Konoagil and include Boi Boi Marit, Kamrai Labei, Koroi Boi Boi, Koroir Kabiawai, Leo, Marnai, Sor, Silbat, Tokboi, Bongian, Limut, and Mongon Land Groups. Additional clans are undergoing the process of receiving official recognition as ILGs but have already committed to the project.

The PP has set the following eligibility of the project activity instances that will be treated individually as accounting areas:

1. The project activity instance shall be additional per the application of the VCS AFOLU Project Activities (VT0001) version 3.0 in Section 3.5 by demonstrating the following attributes:

    a. The project activity instance shall be in area that is designated for commercial logging.

    b. In the absence of the project activity instance, commercial logging would proceed as a harvest block where all legally harvestable trees of merchantable quality are eligible for removal subject to operability constraints.

    c. The PAI shall not be protected from industrial logging by a legally binding agreement prior to the project start date.

2. The PAI shall be entirely forest as defined by FAO 2010 or a more conservative definition as of ten years prior to the project start date.

3. The PAI shall not contain peat soils.

4. The PAI shall not include the grazing of livestock.

5. The baseline scenario shall be consistent with section 6 of the methodology: the baseline driver shall be type F-P1.b, it means, planned degradation by legally sanctioned commercial harvest followed by unplanned deforestation by secondary agents (AUD).

6. The PAI shall be in the designated geographic area of the islands of New Ireland and East New Britain within Papua New Guinea. The project activity instance shall use and apply the following technologies or measures:

a. Prohibit commercial logging unless under a government sanctioned or FSC certified management plan for low intensity selective logging.

b. Conduct a forest protection patrol at least once during each reporting period.

7. In the absence of a Forest Reference Emissions Level (FREL) applied to the project as approved by the national or sub national government(s), the addition of the area of the project activity instance shall not cause the size of the project area to exceed the total size of the reference areas for the project.

8. Meet the following area selection criteria as specified in Appendix D of the VM0009 methodology in both the reference area and proxy area:

a. All PAIs must contain a village or community within its boundaries or have one located within 2 km of the boundaries of the area.

b. Secondary agents must have legal and/or customary access rights to the area.

c. The majority of secondary agent households within the area must practice subsistence agriculture, fishing, or a similar livelihood.

d. To ensure that a PAI has similar landscape configuration to the reference area:

i. The elevation should not exceed 2,000 meters anywhere within the PAI.

ii. The slope should not exceed 70 degrees anywhere within the PAI.

9. An enforceable and irrevocable agreement with the holder(s) of the statutory, property or contractual rights of the project activity shall vest project ownership in NIHT, Incorporated, including the technologies and measures that generate GHG emission reductions and/or removals. As part of this agreement, project participants will agree to comply with all relevant laws and statutes, as well as adhere to principles of land rights, safety and workers' rights, and anticorruption measures.

10. Primary agents must enroll the entirety of their lands to which they control logging rights within PNG, or sign an agreement with NIHT, Incorporated that they intend to enroll the entirety of their lands and commit to no industrial logging until this occurs

11. Commercial timber harvesting must not have occurred within the PAI for 10 years prior to joining the project.

The audit team considers that these eligibility criteria comply with VCS requirements, specifically with Sections 3.5.15 of the VCS Standard. Furthermore, the audit team confirms that the first instance of the project complied with the set eligibility criteria.

3.1.3 Project proponent and other entities involved in the project

The project proponent (PP) is NIHT, Incorporated. New Ireland Holdings, Ltd. is the in-country (PNG) subsidiary of NIHT Inc. that assists in monitoring and reporting activities. In both cases, are directed by Stephen Strauss.

Ecological Carbon Offset Partners, LLC. is a contracted consultant that provides advice in remote sensing, land use change analysis and VCS validation and verification support services.

The audit team finds that contact and entity information provided in the PD conforms to the VCS requirements.

3.1.4 Ownership

Based on the VCS Standard Section 3.6.1, the project demonstrates that the proponent has ownership and or control over the emission reductions under subsection 4:

"Project ownership arising by virtue of a statutory, property or contractual right in the land, vegetation or conservational or management process that generates GHG emission reductions and/or removals (where such right includes the right of use of such reductions or removals and the project proponent has not been divested of such project ownership)".

The project will only include PAIs (as an Eligibility Criterion) when an enforceable and irrevocable agreement with the holder(s) of the statutory, property or contractual rights of the project activity shall vest project ownership in NIHT, Inc., including the technologies and measures that generate GHG emission reductions and/or removals.

The Kamlapar ILG is the first project activity instance and project ownership has been demonstrated through a standing timber agreement ('Contract for Sale of Hardwood Timber') and carbon credit contract ('Kamlapar Contract Final') between NIHT and the Kamlapar ILG and is included in the recognition of Proof of Right and Ownership by the New Ireland Provincial Government ('Assignment of Contractual Rights to NI Holdings, Ltd.pdf', 'Kamlapar ILG Contract for Carbon Credits and Assignment – Executed', 'Approval by New Ireland Provincial Government').

According to the evidences provided, AENOR finds that the PP project ownership is unconditional, undisputed and unencumbered, in accordance with VCS requirements.

3.1.5 Project start date

The project start date is 1st June, 2017. This is the date of publishing NIHT's new business plan ('Business Plan 7.17'), a plan that marked the solidification of the proponent's commitment to conservation instead of timber harvesting within the initial PAI. This event corresponds with the first project activity that leads the GHG emissions reductions of the project (preventing large scale unsustainable industrial timber harvesting and production).

AENOR checked with the submitted records that established date is appropriate and consistent. Then, in opinion of AENOR it is considered reasonable and correct based on the VCS requirements for start date established in Section 3.7 of the VCS Standard.

3.1.6 Project crediting period

The crediting period of the grouped project is 30 years-long, from 1 June, 2017 to 31 May 31 2047.

According to Section 3.8.3 of the VCS Standard, the crediting period of AFOLU projects will have a minimum of 20 years and a maximum of 100 years. Therefore, the project activity is in line with the length of the crediting period, and it has the option to renew more times. Per the VCS guidelines, a mandatory baseline re-evaluation is to be executed at a minimum of every 10 years after the project start. Therefore, there the project consider this mandatory baseline re-evaluation on or before 1 June 1 2027 and on or before 1 June 1 2037.

At this regard, AENOR can confirm that PP have developed credible and robust plan for managing and implementing the project over the crediting period in compliance with Section 3.8.4 of the VCS Standard.

3.1.7 Project scale and estimated GHG emission reductions or removals

The project is classified as “large project” according its scale (more than 300,000 tonnes of CO2e per year), since it will reduce emissions on an average of 1,836,360 tCO_2e per year during the 30 years of crediting period, which means 55,090,789 tCO_2e in total.

3.1.8 Project location

The project area boundaries are the administrative boundaries of the provinces of New Ireland and East New Britain within PNG. This is a grouped project and PAIs will be added to the PAA as additional areas that fulfill the Eligibility Criteria are added to the project. The first PAI, which includes 10,443 ha of tropical lowland and highland forest, is located in the Konoagil LLG within the Namatanai District of New Ireland in an area controlled by the Kamlapar clan.

The location of the project area of the first instance has been presented in shape files, and the coordinates of project area have been provided. During the remote audit, AENOR verified the location of the PAI.

3.1.9 Conditions prior to project initiation

The baseline scenario is the same as the existing conditions prior to the project initiation, although logging would have been much more widespread without the implementation of the project. While there has been some logging within the designated geographic area, especially within East New Britain, many areas remain intact or have largely recovered from historical logging. The majority of the designated geographic area is covered in intact tropical rainforests that have high biodiversity.

Though most of this forest remains untouched or sufficiently recovered to be classified as primary forest, the growing market for tropical roundwood timber places a large threat on the areas with the highest biomass. Since these primary forests have significant biodiversity, the benefits of protecting these forests extend beyond carbon storage and sequestration. However, without intervention, logging is a significant threat to these remaining forests.

Regarding conditions prior to the project initiation, the PD and MR describes in a complete way the climate, hydrology, topography, relevant historic conditions, soils, vegetation and ecosystems for the area involved in the project. During the remote audit, AENOR verified that project is being implemented in forested lands, under the designated project boundaries, belonging to Kamlapar clan, with two settlements (Kig and Watpi).

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

Section 1.14 of the PD provides information related the compliance with the applicable laws, statues and other regulatory frameworks related to land rights, safety and workers' rights and anti-corruption. The main and relevant normative are detailed, and its enforcement analysed.

According to the information provided, including the consultation on legal requirements to the Economic Development CEO of New Ireland Province and the Climate Change and Development Authority staff by AENOR audit team, the project fulfils with legal regulations mentioned in the PD. Thus, AENOR deems that project complies with applicable laws, statues, and other regulatory frameworks.

3.1.11 Participation under other GHG programs

GHG emissions reductions generated by the project will not be used for compliance with binding limits to GHG emissions since such limits are not enforced in PNG, and there is no emissions trading program in place in the country, as was confirmed in consultation with Climate Change and Development Authority staff.

According to a risk-based internet review, the project has not been registered nor is seeking registration under other GHG program, nor has it been rejected by other GHG program. The project only seeks carbon credits under the VCS program currently.

3.1.12 Other forms of credit

The project has not sought or received other forms of environmental credit.

3.1.13 Additional information relevant to the project

<u>Leakage management for AFOLU projects</u>

Activity-shifting leakage and market leakage do not occur (see 3.4.6 Quantification of GHG Emission Reductions and Removals section in this report).

Commercially sensitive information

No commercially sensitive information has been excluded from the public version of the PD and MR.

Sustainable development contributions

In 2010, Papua New Guinea began executing the Vision 2050 plan developed by the National Executive Council (NEC) of PNG which focuses on seven pillars. In terms of UN SDG, the project contributes to Goal 1: No Poverty, Goal 3: Good Health and Well-being, Goal 4: Quality Education, Goal 5: Gender Equality, Goal 6: Clean Water and Sanitation, Goal 7: Affordable and Clean Energy, Goal 8: Decent Work and Economic Growth, Goal 9: Industry, Innovation and Infrastructure, Goal 13: Climate Action, Goal 15: Life on Land, Goal 16: Peace and Justice Strong Institutions, and Goal 17: Partnerships to achieve the Goals.

AENOR assessed these contributions to sustainable development through the review of the project design document and monitoring results, as well as the stakeholder's consultation, and confirms it credibility.

Finally, regarding the project description above, AENOR confirms that is accurate, complete, and provides an understanding of the nature of the project, and confirms that the project has been implemented as described in the project description.

3.2 Participation under Other GHG Programs

As the project has not been registered under any other GHG program, this section is not applicable.

3.3 Safeguards

3.3.1 No Net Harm

The project is not expected to generate negative environmental impacts, because the project activity prevents industrial logging and degradation by secondary agents as a result of greater accessibility within the region. The project will have positive outcomes for both climate change mitigation (through carbon storage and sequestration) as well as biodiversity impacts (through the preservation of key habitats). Preservation of the forest in the project area will not only improve forest health but will also preserve many of the endemic and endangered flora and fauna of the species-rich region.

The project proponent also does not expect any negative socio-economic impacts. Community-focused project activities are aimed at increasing economic growth in the area while keeping a specific focus on improving the lives of the marginalized (as shown in project activity toward women's rights and reduction of inequalities). The logging that has historically taken place has not provided income to all clan members but rather to a select few. This project aims to equal distribution of funds, transparency and conservation of ecosystem services, including provisioning, regulating, cultural, and supporting services. From the start, the project proponent has built a relationship with the clans based on each clan's right to self-determination. Clan leadership voted that every man, woman, and child should

receive their fair share of the distribution of funds and this is written into the design of the benefit distribution mechanism. In addition, each clan that joins the project must have five committees to help manage the distribution and project implementation:

- Membership Committee: ensures that each person is identified and verified as a clan member.
- Distribution Committee: manages distribution of each member's fair share and assists in identifying projects that empower all clan members.
- Finance Committee: manages and monitors the spending of the distribution on clan-based projects.
- Community Development Committee: works closely with the Distribution Committee to recommend projects that benefit all clan members and monitors the effect of the funding on clan members.
- Grievance Committee: Ensures that all issues and comments from clan members are shared with the project proponent and in a public forum.

These committees are made up of 3 to 7 people (as determined by each clan) and are required by the project structure to include at least 40% female representation. Project communication is generally handled through these committees when open attendance meetings are not an option.

On the other hand, through these committees, clan member concerns have been expressed and addressed, pursuing projects leading to increased access to education, healthcare (specifically women's healthcare), electricity, and support for clan business ventures. Since the rest of activities will begin one the first batch of carbon credits are sold, this aspects still remain being decided.

The project has developed a grievance structure should community members have complaints or comments, which will help insure community satisfaction with the project and mitigate any unforeseen negative impacts.

Documents supporting this information were provided, that was also confirmed though the stakeholders consultations (see section 2.3 Interviews, above). Thus, AENOR confirms no net harm is a consequence of the project implementation and preventive a mitigation measures are in place in case they arise.

3.3.2 Local Stakeholder Consultation

Stakeholder meeting and consultation began before the project start date. As additional PAIs are added to the project, secondary agents of deforestation are expected to work with the PP to ensure that similar processes that were completed with the initial PAI will be followed in all additional PAIs.

Meetings with stakeholders and communities in the first PAI, the Konoagil region, in which NIHT originally intended to implement a timber project, began in September 2015. These meetings have continued, with the most recent meetings being held in September 2019.

Consultation with stakeholders was in large part organized through the clan leadership, who along with clan committee members would announce dates and information on these meetings to members of their clans. Meeting types included individual clan meetings, clan meetings with clan leaders, meetings with remote villages conducted by timber cruise teams (February 2019 –April 2020), open attendance meetings, and clan committee meetings. Meetings were documented with a designated note taker writing meeting minutes and taking pictures of the meeting.

There are multiple mechanisms for on-going communication with local stakeholders. The project proponent travelled to the project area at least four times a year since 2015 and also had a local team stationed in the project area full time from September of 2019 until now.

Open lines of communication were maintained through the sharing of email addresses and phone numbers of both the PP's local team and the PP, and conference calls have been held a minimum of three times a week. To ensure access to information, the PD summary was translated into Tok Pisin (Pidgen) and was printed and distributed over one hundred times throughout the PAI with existing networks within the clan, in combination with comments sheets. The mechanism for disseminating important project information and updates to the clans begins by the PP contacting clan leadership and committees which then share the information with clan members.

To make certain that the clan members were in support of and accurately understood the project, members from the CCDA in Papua New Guinea, met with the Kamlapar Clan and Silbat Clan in late January, 2020. The CCDA confirmed, through video conference with the audit team, that the clans were aware of the project and in favor of its implementation (CCDA meeting Evidence). NIHT initially introduced the project to the CCDA in 2018 and will continue to work with the CCDA to ensure that the project is executed correctly and to ensure transparency and partnerships with local agencies.

Local stakeholders showed to have inputs on the project plan, which were used to make adjustments to the project, as the following examples regarding the design of the benefit distribution mechanism:

- Each clan member receives their equal share of 56% of the net revenue derived from the sale of the carbon credits, instead of by amount of land owned by each clan
- Setting aside children's shares into a trust to be held until they turn 18.
- Holding 10% of total distribution in a fund in case individuals are missed in the initial process.
- The use of proceeds to be used for clan projects.

Further developments in project design, implementation, or monitoring will be communicated through meetings with the clan leadership, committee chairs, and events open to the public.

Risks, costs, and benefits that the project may bring to local stakeholders were identified and communicated to the local stakeholders. There is a risk that, without oversight, individual clan leadership may not use the funds for projects as recommended by the Distribution Committee. This risk was a concern that stakeholders brought up during stakeholder consultation meetings and mitigation efforts are discussed in section 3.3.5 AFOLU-Specific Safeguards. An additional risk may be the

financial loss from not participating in a timber project. The possibility of financial loss is being mitigated by the income from the carbon project, as well as the additional project benefits outlined below. The only identified cost of the project to the local clans and their members is the costs associated with receiving official recognition as Incorporated Landowner Groups (ILGs) in order to sign the agreements with NIHT. These costs are minimal in comparison to project benefits.

In terms of protections to stakeholders through workers' rights, Papua New Guinea maintains very little legislation or regulations. Due to a lack of laws, the project proponent has reverted to United States' labor law to ensure fair pay and treatment of all workers involved in the project, though currently only one individual works in-country. Other employees have worked as consultants for the project proponent rather than as employees, as the timber cruise members. The project proponent plans to hire more in-country employees as the project progresses, in which case Papua New Guinea's Employment Act of 1978 will be referenced (Independent State of Papua New Guinea, 1978). These rights will be clearly communicated to all hires.

All updates regarding the validation and verification of the project, including future verifier's site visit, will be communicated to local stakeholders using the methods discussed above.

By means of documents reviewed and the interviews performed, AENOR considers that the summary of the comments received during the consultation process included in the PD is complete. The main conclusions of the meetings and opinions collected from meetings are included in the PD and records of the socialization meetings are kept (summarized in document NIHT_Topaiyo_Meetings_v1.1).

Hence, in the opinion of the AENOR team the local stakeholder consultation process was suitably performed and the PP's response to the inputs was appropriate and taken into account for the project design. The audit team deems that the PP communicated the information about the project design and implementation, risks, costs and benefits, relevant laws and regulations and the process of VCS Program validation and verification in accordance with the requirements established by the Verra.

3.3.3 Environmental Impact

The project does not expect any negative environmental impacts, as the main project activity is preventing industrial logging and further degradation by secondary agents as a result of greater accessibility within the region.

AENOR audit team, after reviewing documents and records and consult to several stakeholders, deems that this conclusion is adequate. Either way, due to project activities, forest monitoring is implemented so any later negative environmental impact that may arise is identified and considered in next verifications.

3.3.4 Public Comments

The project summary was exposed to public consultation on Verra's website from 10 June 2020 to 10 July 2020. During the validation process 8 public comments were received. The audit team reviewed the public comments received and checked the PD updates carried by the PP. AENOR is able to confirm

that the PP has taken due account of all the comments, as per requirement 3.16.8 of the VCS Standard v4.0.

3.3.5 AFOLU-Specific Safeguards

The biggest concern expressed by communities was mitigating the risk of the misappropriation of funds allocated to a community account. The following safeguards have been implemented to ensure transparency of use of funds and deter misappropriation of funds.

1. Recent and accurate census data in the designated geographic area is limited to population numbers at the provincial level, so the PP has been working with the Membership Committee of the current clan –Kamlapar ILG- (and will be similar for the next PAIs added) to quantify realistic numbers of community members impacted. The PP has gathered population data as possible during clan meetings and continues gathering information that will be used both to assess number of people impacted and fair benefit distribution. Each membership list must be approved, validated, and signed by both the Clan Chief and the ILG Chairperson. To date, this process has identified over 42,000 stakeholders.

2. The PP is working with the Distribution and Finance Committees and the clan's accountants to track use of funds, as well as working with the community committees to assist clan members with budgeting and use of proceeds plans to ensure all funding is properly managed and applied. The PP has set up a monitoring and auditing process for every clan whereby a NIHT team can monitor the project accounts in real time using the planned community centers through QuickBooks accounts managed by the Finance Committee. Accurate training has been delivered. This will ensure transparency within all communities

3. All project partners and PAIs will be required to set up safeguards against the misappropriation of funds. Representatives of the primary agent or PP will have to demonstrate every monitoring report how they are engaging with all communities and following FPIC principles in these meetings. Distribution of payments will be maintained in a database the project proponent can audit daily. Today, the only current project activity implemented is the avoidance of commercial industrial logging in the forested area, since the other activities are dependent on the issuance and sale of carbon credits; and no benefits or budget have been managed.

4. The Incorporated Landowner Groups (ILGs) maintain their ownership of the land and the land will never be hypothecated or assigned. If an ILG is not the governing structure of a PAI, similar agreements must be made maintaining local community ownership. The standing timber, the asset being utilized for this program, is protected in this way and owned by the ILGs or communities themselves. NIHT's contracts only address the timber/carbon rights necessary for a carbon credit project, and NIHT has no right to the land or any other asset that the ILGs or the clans own. To ensure the autonomy of ILGs and communities, the project proponent ensures clear communication of project updates and information through clan leadership and local committees.

5. Each clan working with the PP has a Grievance Committee (only one PAI to date), which worked developing a Standard Operating Procedure (SOP) for resolving any conflicts or grievances that may

arise between the project proponent and local stakeholders. Each grievance process SOP must be in place prior to the first distribution (not yet until the first batch of carbon credits is sold). The plan must be in writing and cover all aspects of the business: carbon credits, distribution of funds, and clan membership.

According to the evidences presented and the interviews held, AENOR confirms that the project has been designed appropriately and is being implemented in such a way that ensures not to create any negative impacts on local stakeholders, as well as procedures to prevent, correct or mitigate such impacts where and when necessary.

3.4 Application of Methodology

3.4.1 Title and Reference

The project is using the methodology VM0009 for Avoided Ecosystem Conversion v3.0 (issued 6 June 2014). Additionally, the project has used the VCS Tool for the Demonstration of Additionality in VCS AFOLU Project Activities (VT0001) version 3.0 (issued 1 February 2012) to assess the additionality of the project and to select the most likely baseline scenario, which corresponds to F-P1.b (Avoided Unplanned Deforestation and Planned Degradation - AUD).

3.4.2 Applicability

The PD states all evidences used to demonstrate each condition of the applicable methodology and the tools used for additionality demonstration. The assessment was carried out for each applicability criterion and included, among others, the review of evidence and sources provided in the PD, and the compliance check of the local project setting with the applicability conditions in regard to baseline and eligible project activities as follows:

Applicability of the methodology VM0009 for Avoided Ecosystem Conversion v3.0, issued 6 June 2014.

1. The drivers of conversion in the baseline scenario are consistent with those described in section 6 of the methodology for F-P1.b projects: this is an avoided planned degradation by legally sanctioned commercial harvest and unplanned deforestation by secondary agents. This makes the project activities eligible for Avoided Unplanned Deforestation and Planned Degradation (AUD).

2. The eligibly criteria for PAIs require that the project area qualify as forest. The PP selected a conservative definition of forest as an area that met the threshold of canopy cover for at least 10 years prior to the project start date. The canopy cover threshold selected was 30%, using the upper threshold of guidelines from the UNFCCC (2002), which is more conservative than the 10% threshold provided by the *Forestry Department (2000)* and the *Government of Papua New Guinea (2017)* in their submission for PNG's National REDD+ Forest Reference Level. This is conservative, as it reduces the forest area that may have been deforested in the baseline scenario, reducing baseline emissions .This definition of forest is used in all analyses that only include forested areas. On the other hand, the PP demonstrated

that the project accounting area was in a forested status for at least 10 years prior to project start, which was proved through accurate satellite images.

3. The baseline degradation is planned, and thus condition 3 of applicability (for unplanned baselines) is not applicable to project.

4. The baseline type is F-P1.b, and thus this condition (for baseline type F-U1) is not applicable to the project.

5. The baseline type is F-P1.b, and thus this condition (for baseline type G-U1) is not applicable to the project.

6. The baseline type is F-P1.b, and thus this condition (baseline type F-U2) is not applicable to the project.

7. Soils in the designated geographic region are predominantly brown forest soils and rendzinas (European Soil Data Centre, 1965), so no peat soils are present. Additionally, the Eligibility Criteria for project PAIs require that the project area does not contain peat soil.

8. For each project accounting area, a reference area has been delineated for the baseline type F-P1.b. This reference area meets the methodology requirements, including the minimum size requirement, of section 6.8.1 of the methodology.

9. As of the project start date, historic imagery of the reference area exists with sufficient coverage to meet the double-coverage requirements of section 6.8.4 of the methodology.

10. Project activities are planned to mitigate ecosystem conversion by addressing the primary driver of conversion (legal commercial timber harvest) though the development of economic opportunities (i.e., this project and carbon credits as alternative source of income for locals) that will encourage the protection and maintenance of forested lands rather than carrying out unsustainable commercial logging practices to generate revenue for the region. This is in accordance with section 8.3.1 of the methodology.

11. An activity-shifting leakage area will be required if a PAI added to the project is controlled by a primary agent that is actively logging in areas not included in this project. At validation and initial verification, this is not applicable as the primary agent in the initial PAI is not actively logging elsewhere in PNG (see section 3.1.13 Additional information relevant to the project, in this report).

12. If an area within the designated geographic area that has been logged recently is added as a PAI, a market leakage deduction will be necessary and a market leakage area may be required. At validation and first verification, there is only one PAI and it has not been logged recently so no market leakage area is required.

13. Soil organic carbon is not a selected carbon pool for this project.

14. No livestock are being grazed within the project area in the project scenario as per the Eligibility Criteria for PAIs. This was confirmed with the local stakeholders consulted.

15. All GHG emissions from project activities that are not *de minimis* will be monitored and deducted from emissions reductions. Initial project activities of preventing logging, forest patrols, and monitoring for disturbances do not result in significant GHG emissions.

Applicability of the VCS VT0001 Tool for the Demonstration of Additionality in VCS AFOLU Project Activities v3.0, issued 1 February 2012.

1. AFOLU activities proposed on the land within the proposed project boundary do not lead to violation of any applicable law even if the law is not enforced, as discussed in 3.1.10 Project compliance with applicable laws, statutes and other regulatory frameworks, of this report.

2. The baseline methodology provides a stepwise approach justifying the determination of the most plausible baseline scenario, which properly corresponds to F-P1.b (Avoided Unplanned Deforestation and Planned Degradation, according to VM0009) and is enforced in terms of baseline scenario and additionality of a project activity. The PP does not propose any new baseline.

AENOR, based on records provided including spreadsheets calculations of the emissions reductions, verified the applicability conditions of the methodology and tool. In conclusion, the project activity complies with the applicability conditions of the methodology and tool selected by the PP. Compliance of the first PAI (Kamlapar) with these conditions is included in section 3.4.5 Additionality in this report.

3.4.3 Project Boundary

The GHG sources considered (according to Table 2a in VM0009 v3) are:

Gas	Sources	Inclusion	Justification
CO2	Flux in carbon pools	Yes	Major pool considered in the project scenario
CH4	Burning of biomass	No	Conservatively excluded as burning will not be a part of project activities
CH4	Livestock	No	Emissions from grazing are not included because PAIs do have grazing of livestock in their lands, as an eligibility condition (nº 14).
N2O	Burning of biomass	No	Conservatively excluded as burning will not be a part of project activities
N2O	Livestock	No	Emissions from grazing are not included because PAIs do have grazing of livestock in their lands, as an eligibility condition (nº 14).
N2O	Synthetic fertilizer	No	Excluded as synthetic fertilizer will not be a part of project activities

According to the VCS requirements, sources of emissions that are expected to increase in the project scenario compared to the baseline case must be included if the exclusion would lead to a significant overestimation of the total net anthropogenic GHG emission reductions generated during the fixed baseline period. Furthermore, that sources considered insignificant according to the latest VCS Methodology Requirements can always be neglected. The selected carbon pools for forest project accounting areas were presented, as well as proper evidence for the conservative exclusions (according to Table 2b in VM0009 v3):

Pool	Required	Inclusion	Justification
Above-ground Merchantable Tree (AGMT)	Yes, if baseline scenario or project activity include the harvest of long-lived wood products.	Yes	Major pool considered when accounting for emissions from long-lived wood products. Timber harvesting is a primary driver of deforestation in the baseline scenario and may be included as a project activity at a later date.
Above-ground Other Tree (AGOT)	Yes	Yes	Major pool considered.
Above-ground Non-Tree (AGNT)	Yes, if the baseline scenario includes perennial tree crops. Otherwise, accounting for this carbon pool is optional.	No	As perennial tree crops are not part of the baseline scenario, this pool has been conservatively excluded.
Below-ground Merchantable Tree (BGMT)	Optional	Yes	This pool is included as it is a major carbon pool in merchantable trees.
Below-ground Other Tree (BGOT)	Optional	Yes	This pool is included as it is a major carbon pool in non-merchantable trees.
Below-ground Non-Tree (BGNT)	Optional	No	This pool is conservatively excluded.
Litter (LTR)	No	No	This pool is always conservatively excluded per methodology requirements.
Deadwood (DW)	Yes, if AGMT is selected.	Yes	The proportion slash is calculated from the AGMT pool.
Standing Deadwood (SD)	Optional	No	This pool is conservatively excluded.
Lying Deadwood (LD)	Optional	No	This pool is conservatively excluded.
Soil Organic Carbon (SOC)	Optional	Maybe	This pool is conservatively excluded from the initial PAI and ex-ante crediting estimates, but may be added in future monitoring periods.
Long-lived Wood Products (WP)	Yes, if AGMT is selected.	Yes	This pool is calculated from the AGMT pool.

The baseline includes logging, as industrial commercial logging was foreseen for the project area; on the other hand logging is not included currently as a project activity. That said, trees are categorized as merchantable or non-merchantable based on the guidelines provided in the 'PNG Logging Code of Practice 2014'(PNG Forest Authority, 2014), which determines that merchantable trees are greater than 50 cm in diameter at breast height, or directly above fluting; always excluding trees in Exclusion Zones. This categorization is included in the SOP NIHT Field Measurement Protocol v1.9, as was used as reference in the inventory, as showed in the inventory workbook ('NIHT Treelist'). Exclusion Zones were accounted for geospatially by stratifying PAAs based on whether or not the area is within an Exclusion Zone (steep areas, stream management zones, and areas located near communities). As new PAIs are added to the project they will be similarly stratified.

GIS-based maps of the project accounting area were presented. The landsat image of the current project accounting area at project start (May 5th, 2017) and 10 years prior (composite image of images taken on October 24th, 2007 and December 11th, 2007, due to issues with the Landsat7 sensor) show that they were comprised of forest at the project start date and 10 years before.

The designated geographic area for this project is the administrative boundaries of the islands of New Ireland and East New Britain in PNG. A GIS-based map of the designated geographic area within which all PAIs will be located, including the boundaries of the Kamlapar ILG, the first PAI, was presented.

Taking into account the justifications, assumptions and supporting information provided and the design of the project, AENOR deems that project boundary is correctly defined and in compliance with the applicable methodology and VCS requirements.

3.4.4 Baseline Scenario

Per Eligibility Criteria #1 (see section 3.4.2 Applicability in this report), all PAIs are required to demonstrate they were designated for industrial logging prior to joining the project, making this the most plausible baseline scenario. Then, the baseline scenario is degradation due to commercial logging of the project area by the primary agent, followed by cascade of deforestation driven by the secondary agent of deforestation; which corresponds to F-P1.b project in the methodology.

The following is a list of agents and drivers of deforestation within the project area in the baseline scenario:

Conversion type	Conversion Agent	Conversion Driver
Primary	Commercial logging operator that owns the rights to implement commercial logging within the project area: NIHT, Incorporated	Commercial logging that harvests and exports all merchantable timber within project area resulting in significant degradation of the project area. Primary agents have the mobility to reach any accessible point within an area due to their construction of roads, allowing access to previously inaccessible areas.
Secondary	Communities and local villages within or neighboring project area	Conversion to non-forest land uses of areas now accessible by the secondary agent due to the activities (and infrastructure built) of the primary agent. Many of these areas would likely be converted for agricultural purposes.

In the case of the initial PAI, this primary agent is the PP, NIHT Inc., which owns the rights to legally harvest within this PAI, but has decided to instead implement project activities as part of this carbon project. The Kamlapar ILG is officially recognized by the government of Papua New Guinea and they are allowed to legally harvest within the harvestable areas of their ILG boundaries. The ILG made an agreement transferring these timber extraction rights to the PP (Contract for Sale of Hardwood Timber, 12th Sept. 2015). If it were not for project activities and carbon finance, the project proponent would have legally extracted timber from the harvestable areas of this PAI in the baseline scenario (Kamlapar Contract Final - Carbon Credit Contract, 18th Feb. 2020). Even though these timber extraction rights have been transferred to the PP, the local clans and communities still maintain traditional use rights to the area within the PAI.

After the operation would have provided access to areas that were previously inaccessible to the secondary agents, and after the primary agent had completed operating within a harvest block and was no longer patrolling the area to protect from encroachment, cascading deforestation have occurred due secondary agents (closed communities) immigrating to convert previously forested areas to non-forest, typically for subsistence and/or cash crops. Oil palm and coconut are some of the more likely cash crops in this region as both cash crops have been grown on the islands of New Ireland and East New Britain, with extensive agriculture continuing to expand on East New Britain.

Following the legal requirements of timber harvesting within PNG, NIHT would have construct logging roads and harvest every merchantable tree within harvest blocks within the designated geographic (PAI Kamlapar in this case). This timber would then be exported as roundwood. The NIHT Timber Plan in Konoagil and initial monitoring report provide further detail on how this logging would have been completed in the initial PAI and other areas NIHT is legally allowed to harvest. The PP properly demonstrated that in the baseline scenario the primary agent would have developed infrastructure (forest roads, skid trails, and landings) within the PAA, that would have led to access that could result in deforestation, according to forest management practices in the country and literature (UN FAO, 2011).

Finally, some secondary illegal logging would likely occur. The rate of this conversion is determined by the historical analysis of conversion within the reference area. Mobility of secondary agents is typically limited to distances that can either be travelled by foot (approximately 5 km) or other simple transportation such as pack animals (approximately 25 km).

The previous hypotheses were consistently considered to approach the baseline calculations, based on experience in the area and academic literature. Kamlapar PAI complies with this scenario.

PAIs will be limited to areas within the designated geographic area that fulfill the Eligibility Criteria. As new PAIs are added to the project, all of their inaccessible areas will be identified and removed from the PAA. The PAA will then be further stratified into harvestable and non-harvestable areas using Exclusion Zone criteria in the PNG Logging Code of Practice 2014 (slope zones, stream management zones, and areas located near communities).

The primary agent of conversion is constrained to only the harvestable areas of the PAA. This conservatively assumes that commercial logging agents will only work within legally harvestable areas, extracting all merchantable trees within a harvest block. On the other hand, the secondary agent is not confined to only harvestable areas since the activities of the primary agent provide access to the entire PAA. While it is possible that the secondary agents would prioritize conversion activities in non-harvestable areas, there is nothing to legally prevent them from converting these areas following the departure of the primary agent.

That said, under the VM0009, the project is classified as an Avoided Planned Conversion (APD) project, specifically as an Avoided Unplanned Deforestation and Planned Degradation (AUD). This project is eligible for REDD as an Avoiding Planned Deforestation and/or Degradation (APDD) project as defined in VCS Standard v4.0. These projects involve 'activities that reduce net GHG emissions by stopping or reducing deforestation or degradation on forest lands that are legally authorized and documented for

conversion'. As per the Eligibility Criteria, all PAIs will be constrained to forested areas on which logging is planned and legally authorized, i.e. planned degradation.

The following table describes how the baseline emissions models from the methodology are applied to each carbon pool as well as the additional assumptions used in identifying the baseline scenario for the project. All values come from a biomass inventory completed within the first PAA (NIHT_KamlaparILG_Treelist_v1.18 for Kamlapar PAI, NIHT_PAI1_ProxyArea_Treelist_v1.4 for Proxy Area, according procedures described in "NIHT Field Measurement Protocol"). As additional PAIs are added to the project, the sampling frame will be expanded to include these PAAs.

Baseline carbon pool	Assumptions
AGMT	For a project type F-P1.b (commercial logging), the following assumptions are made as to what will become of aboveground merchantable biomass: a. All commercial portions of commercially viable trees are assumed to be removed and converted to long-lived wood products. b. Non-merchantable portion of merchantable trees (the slash) will be decayed linearly over 10 years (as this is conservative, even if some would be used for burning or fuels). These assumptions and steps are applied in baseline accounting, as the without-project scenario would have included legal commercial logging. The aboveground merchantable trees would have been cut and sold as wood products, treated as commercial products, and otherwise followed standard industrial commercial logging practices of the region. In the baseline scenario, every tree meeting the merchantability criteria is harvested and the merchantable timber is converted to long-lived wood products. However, the proxy area analysis found residual biomass in AGMT of 45.5tCO2e ha-1, so baseline emissions conservatively estimate this residual biomass remains following harvesting. Greater than 90% of timber from PNG is exported as roundwood (ITTO, 2018), so all merchantable timber (i.e. the AGMT that is not slash) in the baseline scenario would be converted to roundwood. The proportion of slash was estimated by calculating the merchantable volume of AGMT using equation B.17 of the methodology, a standard equation for calculating the volume of a truncated cone. This merchantable volume was converted to biomass by multiplying by the species specific gravity. The biomass of slash was estimated by subtracting the merchantable biomass for each tree from the total AGMT. The proportion slash was calculated for each plot in the harvestable strata of the PAI by dividing the total biomass of slash in AGMT by the total biomass of AGMT for each plot. Even though much of this slash would likely be burned and emitted immediately, it is conservatively accounted for as decaying over a period of 10 years.
AGOT and AGNT	The AGOT pool is not harvested by the primary agent of deforestation and is conservatively assumed to remain undamaged as a result of harvesting activities. In areas where the secondary agents of deforestation are active, they clear remaining trees until the residual AGOT biomass remains as determined by the proxy area analysis. The proxy area analysis indicates that 49.2tCO2e ha-1 remains in AGOT following a deforestation event by the secondary agents and drivers. AGNT is an excluded pool.
BGMT, BGOT, and BGNT	The only below-ground portion of trees and other below-ground biomass affected during the commercial baseline logging is conservatively assumed to be that of merchantable trees harvested during logging. The BGMT and BGOT pools are respectively calculated from AGMT and AGOT pools using the IPCC default root-to-shoot ratio for wet tropical forests of 0.37 (IPCC, 2006). This below-ground biomass will be decayed over 10 years in

Baseline carbon pool	Assumptions
	trees removed by the primary and secondary agents. These assumptions are in line with the baseline scenario as logging in PNG does not usually involve using or removing below-ground biomass. It is conservative for the AGOT pool since it assumes the BGOT pool is allowed to decay over time, even though it is likely that some of this pool would be removed and the emissions would happen immediately due to burning.
SD	Standing deadwood in the baseline scenario would be removed, burned, or converted to fuel wood. For baseline type F-P1.b, the SD pool is assumed to be insignificant in affecting baseline scenario emissions and it has been conservatively excluded from accounting.
LD	Similar to SD, in baseline type F-P1.b, lying dead wood would be removed, burned, or converted to fuel wood during the harvest process. Like the SD pool, it has been conservatively excluded.
SOC	The baseline scenario does not account for any changes in the SOC pool. Since it is likely that the disturbances of the primary and secondary agents of deforestation would likely result in an increase in emissions from this pool, this is conservative.
WP	Since logging is the main driver of deforestation in the project's baseline scenario, carbon biomass stored in long-lived wood products will be accounted for as explained for AGMT above. All of the AGMT not considered slash is converted to roundwood, the primary timber export of PNG.

AENOR deems that assumptions, justifications and data used in the identification of the baseline scenario are appropriately justified and can be deemed reasonable. Documentary evidence used in determining the baseline scenario is relevant, and correctly quoted and interpreted in the project description. Relevant national and/or sectoral policies and circumstances have been considered and are listed in the PD. The procedures for identifying the baseline scenario have been correctly followed according to the steps in the combined tool and the identified scenario reasonably represents what would have occurred in the absence of the project. Thus, AENOR considers that the identified baseline scenario is correctly justified.

3.4.5 Additionality

The project has used the VCS Tool for the Demonstration of Additionality in VCS AFOLU Project Activities (VT0001) version 3.0 to assess the additionality of the project and to select the most likely baseline scenario. According to the above tool, the following steps were analyzed:

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

Sub-step 1a(a): Identify credible alternative land use scenarios to the proposed VCS AFOLU project activity:

i. Continuation of pre-project land use. The following land uses occurred in the project area prior to project initiation:

- Per Eligibility Criteria #1, all PAIs are required to demonstrate they were designated for industrial logging prior to joining the project, making this the most plausible baseline scenario.

ii. Project activity on the land within the project boundary performed without being registered as the VCS AFOLU project:

- It is possible, though highly unlikely, that the PP could fundraise to pay for the implementation of technologies and measures to protect the first PAI.

iii. Activities similar to proposed project activity on at least part of the land within the project boundary resulting from legal requirements or observed similar activities:

- It is possible, though highly unlikely, that laws could be instated by either local governments or by the government of PNG that ban industrial logging or instate sustainability quotas and conservation targets, preventing the commercial logging of the first PAI.

Sub-step 1a(b): Credibility of identified land use scenarios

- Scenario 1 is applicable to all PAIs that fulfill the Eligibility Criteria as all PAIs are required to demonstrate that the area was designated for commercial logging. Scenario 2, however, is not credible, as there is a lack of conservation funding in the area, and commercial logging is exceedingly more profitable than philanthropic conservation. This is especially the case due to the lack of regulation around tax evasion as well as high mark-up of tropical roundwood prices when sold overseas (Mittal, 2016). It would be extremely challenging for the PP to secure conservation donations to overcome the opportunity cost of commercial logging. Scenario 3 is also not credible, as the government of PNG collects taxes from commercial logging exports and concession fees, and is not likely to change any laws as it may reduce their tax basis (Mittal, 2016).

Sub-step 1a(c): List of credible alternative land use scenarios

- PP carrying out commercial logging as a harvest block in the first PAI.

Sub-step 1b(a): Consistency of credible land use scenarios with enforced mandatory applicable laws and regulations

- In order to demonstrate that PAIs fulfill the Eligibility Criteria, it is necessary to demonstrate that the primary agent is able to legally implement an industrial logging operation. Thus, by fulfilling the Eligibility Criteria, the baseline land use scenario will be credible.

Sub-step 1b(b): Outcome of Sub-step 1b

- PP carrying out commercial logging in the first PAI.

Sub-step 1c: Selection of baseline scenario

- All PAIs that fulfill the Eligibility Criteria will have the selected baseline scenario of industrial logging of the PAI following the PNG Logging Code of Practice (2014) followed by conversion by secondary agents (project type F-p1.b).

Step 2. Investment analysis to determine that the proposed project activity is not the most economically or financially attractive of the identified land use scenarios

The VCS Additionality Tool requires that either step 2 (investment analysis) or step 3(barrier analysis) be undertaken (or both). The barrier analysis was selected.

Step 3. Barriers analysis

The following barriers analysis shows how project activities would not take place without the revenues arising from the sale of GHG credits.

Step 3a: Identify barriers that would prevent the implementation of the type of proposed project activity

- Investment barriers. Similar project activities have only occurred with outside funding like grants and non-commercial finance terms. Financing for conservation projects does not exist in PNG, and it is highly unlikely that the project would be able to support itself and its activities without some sort of financing.
- Institutional barriers. As shown in The Great Timber Heist: The Logging Industry in Papua New Guinea, a report produced by the Oakland Institute in 2016, there is a lack of law enforcement when it comes to the timber industry. Even if laws began to regulate timber and were aimed to create a more sustainable industry, it is highly unlikely that these would actually be enforced, and over-exploitation would continue to occur due to rampant corruption and lack of governmental capacity.
- Barriers related to local tradition. The communities in the region have limited access to education, especially environmental education opportunities. Because of this, conservation practice would be limited at best, as community members would not have the education background to practice sustainable timber and would not be knowledgeable of how to complete the forest inventories necessary for conservation practice.
- Barriers due to social conditions and land-use practices. The project would not have a workforce skilled in conservation technique and practice, and thus needs outside consulting in order to properly maintain a forest to its full capacity.

Step 3b: Show that the identified barriers would not prevent the implementation of at least one the alternative land use scenarios (except the proposed project activity):

- All barriers identified above will not prevent the land use scenarios identified in Step 1, as private corporations will be able to finance timber operations because of the high market value and profits of tropical roundwood. Lack of regulation eases logging and corporations will be able to bring in the skilled workforce that is necessary to operate a timber concession and harvest blocks.

Step 4. Common practice analysis

Due to lack of governmental and community resources, there are no operational projects or initiatives to reduce deforestation on this scale in the region. Although the PNG Government has proposed plans to reduce illegal logging and eliminate the export of illegally harvested roundwood, logging and timber exports within PNG continue to be executed at a high level (*The Oakland Institute*, 2016).There are no other initiatives in the region to reduce deforestation and promote sustainable land management. Because of this, the proposed project activity is considered additional.

Thus, project additionality and baseline scenario were assessed for the first PAI to conclude that all PAIs that fulfill all Eligibility Criteria are also additional (see section 3.4.2 Applicability, in this report) since the most plausible baseline scenario for them aligns with the VM0009 Methodology's F-P1.b project type. This is demonstrated as follows for Kamlapar ILG:

1. The PAI is additional per the application of the VCS AFOLU Project Activities (VT0001) version 3.0 (see above).

a. The PAI boundaries were delineated using the area of the Kamlapar ILG, which was formed so that commercial logging could commence.

b. If not for the implementation of the REDD project, the Kamlapar PAI would have been logged over a period of two years ('Konoagil Logging Plan').

c. The PAI was not protected from logging until the project proponent decided to protect the area instead of initiating timber harvesting (Business Plan 7.17).

2. The PAA was reduced to only areas that were classified as forest for at least 10 years prior to the project start date using a conservative definition of forest, according to GIS-based maps presented.

3. The soil in the PAI is primarily brown forest soils and rendzinas. There are no peat soils in the PAI boundaries.

4. There is no evidence of livestock grazing within the PAI. Subsistence agriculture and fishing is the primary livelihood for most communities, along with a few cash crop plantations.

5. The baseline scenario is consistent with baseline type F-P1.b projects. The Kamlapar ILG transferred the legal rights to commercial logging to the PP, which intended on harvesting the entirety of the harvestable areas of the PAI as established in the 'Konoagil Logging Plan'.

6. The project activity instance is located in the designated geographic area. It is located in the Konoagil LLG within the Namatanai District of New Ireland. The following technologies and measures have been implemented within the Kamlapar PAI:

a. Prohibition of all commercial logging, unless FSC-certified, as of project initiation.

b. Conducted forest patrols as part of project measures.

7. The addition of the PAI to the PAA does not exceed the reference area size of 110,000 hectares. The PAA of this initial PAI is 10,443 hectares.

8. The Kamlapar PAI and the reference area meet the similarity criteria established by the methodology to fulfill these eligibility criteria.

a. There are two very small villages along the coast within the PAI (Watpi and Kig).

b. The Kamlapar clan maintains customary and legal use rights to the areas within the boundaries of the Kamlapar PAI.

c. The majority of secondary agent households within the area must practice subsistence agriculture, fishing, or a similar livelihood.

d. The Kamlapar PAI meets the landscape configuration requirements:

i. The maximum elevation within the Kamlapar PAI is 1,553 meters above the sea level, which does not exceed the maximum elevation threshold established in the PD.

ii. The maximum slope within the Kamlapar PAI is 69.9 degrees and does not exceed the maximum slope threshold as established in the PD.

9. The contractual rights to timber for the Kamlapar PAI are controlled by NIHT Inc., so no additional agreement is necessary. The contract between the PP and the ILG (Kamlapar Contract Final) confers project management capacity and rights to GHG emissions reductions to NIHT Inc. (Topaiyo Legal Opinion Letter). The contract stands for 30 years.

10. The primary agent, which for this PAI is the project proponent NIHT, is committed to enrolling the entirety of areas in which clans have signed agreements with them. NIHT is not only committed to no industrial logging until these areas are enrolled, but is actively working with clans outside the PAI boundaries to prevent illegal logging until this happens (see 5.3 Monitoring Plan, in this report).

11. There has been no industrial logging within the Kamlapar PAI within the past 10 years. There have been no active concessions and there are no logging export records from within this area.

Hence, after the assessment of the explanations and justifications in the PD and the review of the submitted evidence, also detailed in the project document, AENOR deems credible and reliable the supported documents provided. Thus, additionality procedures are credible, and it the case of the first PAI are clearly demonstrated. Evidence for each additional PAIs will be provided in upcoming monitoring reports as well as supporting documents for the monitoring period in which the PAIs are added to the project.

3.4.6 Quantification of GHG Emission Reductions and Removals

Procedures for quantifying the GHG emission reductions generated by the project during the project crediting period were conducted in accordance with the methodology VM0009 Methodology for Avoided Ecosystem Conversion V3.0, issued 6 June 2014. The validation team performed an intensive quantification review of all input data, parameters, formulas, calculations, conversions, statistics and resulting uncertainties and output data to ensure consistency with the VCS documentation, methodology modules, and the PD.

Furthermore, the validation team reproduced calculations for selected samples to ensure accuracy of the results. Conversion factors, formulas, and calculations were provided by the PP in spreadsheet format to ensure all formulas were accessible for review. The validation team recalculated subsets of

the analysis to confirm correctness. Where applicable, references for analysis methods or default values were checked against relevant scientific literature for best practice.

Allometric equations

The selected allometric equation used to estimate biomass for trees and non-trees was the pan-tropical model from Chave et al. (2014), that is:

$$AGB_{est} = 0.0673 * (pD^2H)^{0.976}$$

The selected equation is a widely accepted equation for tropical ecosystems that has been credibly cited in numerous peer-reviewed studies. Additionally, this equation have been found to provide the best estimate when DBH, tree height, and wood density are included in measurements *(Chave, 2014)*. DBH and tree height were both measured in the field, as well as the species of each tree. The densities of available species were found in the Global Wood Density Database *(Zanne, 2009)* and applied in allometric equations for each tree.

As this is a pan-tropical question applicable "across tropical vegetation types"*(Chave, 2014)*, it was applied to all tree species measured in the carbon inventory (Proxy area and Kamlapar PAI). This allometric equation only provides an estimate of the AGB of each tree inventoried. AGB is converted to aboveground carbon (AGC) using the IPCC default value of 0.47.

BGB was estimated as a proportion of the AGB pool using the IPCC default root-to-shoot ratio for tropical ecosystems of 0.37 *(IPCC, 2006)*. Thus, each tree was estimated to have 37% of its' AGC estimate stored in belowground carbon (BGC). Total carbon stocks only include the AGC and BGC pools, thus 73.0% of the total average carbon stocks ($C_{Pb}{}^{[m]}$) are predicted from this allometric equation as:

$$C_{Pb}^{[m]} = AGC + BGC = AGC + AGC * 0.37 = 1.37 * AGC$$

$$AGC = \frac{C_{Pb}^{[m]}}{1.37} = 0.73 * C_{Pb}^{[m]}$$

This allometric equation was employed for both baseline estimates and in this first monitoring period. It is used for the inventories in both the PAA and in the proxy area.

Baseline Emissions

- Proxy Area

The methodology requires an inventory of a proxy area to estimate post-conversion carbon stocks in the baseline scenario. The PP demonstrated that the selected proxy area is sufficiently similar to the initial PAA and explained how the proxy area was delineated. This, through providing comparatives maps about vegetation, climatic conditions, topographic constraints to conversion (slope, aspect, and elevation), land use and land cover, soils, applicable infrastructure, ownership boundaries that

influence conversion, etc. It was showed that since the proxy area falls within the designated geographic area and the reference area, it shares many similarities with the initial PAA.

The proxy area boundaries were selected by identifying a concession in the reference area that had been degraded due to commercial logging and accessible by secondary agents. The Toriu Headwaters concession is controlled by KK Connections Ltd and had export records dating back to 16 July 2008. The project proponent was provided permission to access the area to complete an inventory, making it a suitable location for proxy area sampling. A sub-section of this concession that has been converted to non-forest was identified using remote sensing imagery and local knowledge. This area was further restricted to non-forest using Hansen data through the end of 2017 and the definition of forest (see Clause #2 in section 3.4.2 Applicability of this report).

Carbon stocks for post-conversion land cover classes were estimated from a biomass inventory within a sampling frame of the proxy area (NIHT_PAI1_ProxyArea_Treelist_v1.4). The procedures for this inventory are the same as those within the initial PAA (NIHT_KamlaparILG_Treelist_v1.18) and can be found in the document NIHT Field Measurement Protocol v1.9. From an interview with the timber cruise and the revision of a sample of plots of both inventories, it was confirmed that the procedures were accurately followed.

- Reference Area

The VM0009 Methodology requires the delineation of a reference area in order to estimate conversion rates for the baseline scenario. The PP provided a map of the delineated boundaries, demonstrating that the reference area was held by the identified baseline agent or agents and did not include the project area. The selected reference area is within the designated geographic area in the province of East New Britain, where logging has significantly expanded since 2000.

The PP provided evidences of the concessions names operating in the reference area (Taraiwara, Toriu Head Waters, Dengnenge, Makolkol), such as initial logging export dates records, their Forest Clearing Authority (FCA) identification numbers and villages or towns within 2km of the forestry concession area boundaries.

Global tree cover data produced as a part of the University of Maryland's research (i.e. Hansen data) on global forest cover and loss rates was used to estimate the amount of forest in the reference area as near to the start of the reference period as possible. The PP demonstrated the reference area had as much forest as the PAA during the historic reference period. Since the reference period begins in January 2008, the PP used Hansen deforestation data through the year 2007 to estimate the amount of forest in the reference area at the beginning of the reference period. Any areas that had been marked as deforested within the concession boundaries were removed from the reference area to provide this estimate. The four concessions that make up the reference area have a combined area of 110,000 hectares, the size threshold for the total PAA per Eligibility Criteria. In 2008, these concessions had a forest area of 108,598 hectares. The PAAs of each PAI would be similarly reduced to only forest areas in order to meet Eligibility Criteria #2.

PP provided evidences that the management practices of the baseline agent in the reference area (four concessions) were similar to those that would have been applied to the PAIs in no-project scenario; as well as the rationale for selection of reference area boundaries according to VM0009, based on the presence of areas logged by commercial timber operators during the historic reference period on East New Britain island (since the island of New Ireland had limited commercial harvests in the past 20 years) and the availability of timber exportation records.

The VM0009 methodology requires that the reference period be established by the date on which the primary agent acquired control of a landholding in the reference area. The Toriu Head Waters concession was the first of the four FCAs to export timber and was acquired on 15 January 2008, as listed in the 2011 National Forest Plan (PNG Forest Authority, 2011).This marks the beginning of the historic reference period. The historic reference period ends on February 23rd 2020, the date of the most recent image included in the reference area conversion analysis.

As the reference area falls within the designated geographic area, meets the relevant Eligibility Criteria for reference area selection compared to the PAIs. The PP provided documentation of the reference area to showed the area meets the Reference Area Selection Requirements in terms of elevation, slope, orientation, soils, socio economic conditions of the communities, infrastructure, deforestation drivers (primary and secondary, see section 3.4.4 Baseline Scenario in this report).

The PP provided a map to show the area of "double coverage"; meaning that sufficient historic imagery (from Landsat 7, Sentinel 3, and Landsat 8) is available in the reference area during the reference period to ensure double coverage in 98.2% (at least greater than 90%) of the reference area (Land cover Classification SOP). The PP provided a line plot of the historic image dates to confirm stationarity, evidence that all image pixels are not more than 30 m x 30 m, empirical evidence that imagery is registered to within 10% RMSE on average (see Full Point Interpretation Exercise - Satellite Image Metadata), and justification and location on the plots sample size.

The parameters α and β were estimated using the logistic function defined by equation A.4 and A.5 of the methodology:

$$F_{DF}(t,\eta) = \frac{1}{1 + \exp[-\eta(t,\theta)]}$$

F_{DF} = proportion of cumulative conversion
η = linear predictor given time and conversion covariates;
t = time
θ = parameter vector of covariates

$$\eta = \alpha + \beta t + \theta x^T + \delta_{PR} \qquad [A.5]$$

α = combined effects of β and θ at the start of the historic reference period
β = effect of time on the cumulative proportion of conversion over time
t = time since project start date
θ = parameter vector of covariates
x^T = covariate value
δ_{PR} = project lag parameter

Covariates were conservatively excluded and θ was not included in the model. These estimates were made using an R script that was shared with auditors (CDM_final_v5.R), in order to provide a logistic function of deforestation over time within the project area relative to the project start date. The values for α and β were -3.728 and 0.0005, respectively.

The protocol for interpreting land cover imagery was shared with auditors in the document "Landcover Classification SOP". Each point was classified into sub-classes of land covers, and for the purposes of the methodology these sub-classes were grouped into a class of forest, non-forest, or no image. Methodology calculates values for parameters based on the conversion rate of forest to non-forest, ignoring points in time that are unable to be classified due to cloud, cloud shadow, or areas of no image in Landsat-7 imagery. After and an independent check of the interpretation, no systematic errors were identified in the accuracy assessment. The VM0009 Methodology does not provide a threshold for accuracy, but overall accuracy of 83.3% obtained exceeds the thresholds of other methodologies. The estimated uncertainty σEM had a value of 0.103 (Standard deviation of observed conversion derived from an estimate of variance for a Bernoulli random variable; Lohr, 2009); according to the workbook presented (UncertaintyCalculations_RefRegionENB).

- Determining Parameters for the Biomass Emissions Model (BEM)

The document 'NIHT Timber Plan in Konoagil' details the logging that would have occurred in the initial PAI and surrounding instances controlled by the primary agent of the initial PAI (NIHT Inc.) under the baseline scenario. While commercial logging by the primary agent was never started due to their shift to a conservation project, harvest plans were prepared by a PNG forester, which demonstrates how the primary agent would have acted under the baseline scenario.

Per the VM0009 methodology, t_{SA} is the number of days after the primary agent begins commercial logging until when the secondary agent of deforestation is likely to begin degrading the project accounting area. T_{SA} was determined using available information on how secondary agents respond to the industrial harvesting that would have occurred in the baseline scenario. In the baseline scenario the scheduled harvesting would take 2 years and secondary agents would be unable to use the roads and other access points until the primary agent is no longer working and patrolling in the area. As suggested by the VM0009 methodology, the project proponent determined that using the logging period of the first harvest length is applicable to this project, as it would be legally-sanctioned commercial logging. Thus, the parameter t_{SA} has a value of 730 days.

The parameter t_{PA} is the number of days relative to the project start date when the primary agent began or would have begun legally-sanctioned commercial logging in the PAA. The value for t_{PA} is 0, since the PP would have begun logging in the PAI at the project start date (1st June 2017).

The parameter m is the average carbon in merchantable trees cut each year as a result of legally-sanctioned harvesting. It was calculated by multiplying the sum of [m=0] (296.5 tCO2e ha-1) and C_{BGMT}[m=0] (109.7 tCO2e yr-1) by the annual harvest area (3,892.1 ha). The annual harvest area was conservatively estimated using the annual allowable cut (AAC) estimated in the Konoagil Logging Plan

('NIHT Timber Plan in Konoagil') and feedback from a professional forester in PNG who has experience implementing logging projects within the country, since PNG does not provide an area for the maximum annual allowable cut (AAC) applicable to the project area. The parameter *m* has a value of 1,581,020.5 tCO2e yr-1. Carbon stocks for [m=0] and C_{BGMT}[m=0] were estimated from an inventory of merchantable trees within the harvestable areas of the initial PAI and will be updated for new PAIs as they are added to the project. The inventory workbook estimating [m=0] and C_{BGMT}[m=0] in addition to the *m* parameter was provided to auditors in "NIHT_KamlaparILG_Treelist".

The project shift parameter *γ* is the number of days between the beginning of the historical reference period and the project start date. As the reference area has multiple agents (logging companies) operating within it, per section 6.8.2.1 of the VM0009 methodology the reference period start date was established as the earliest date that an agent acquired control of the land. The PP presented timber export records from each concession within the reference region and identified the Toriu Head Waters (FCA 15-04) as the first established logging operation there. The first record of logging exports is dated 16 July 2008 and according to the PNG Forest Authority's 2013 National Forest Plan the Forest Clearance Authority for this area was issued 15 January 2008 (PNG Forest Authority, 2011). The value for the γ parameter is -3,425, the number of days between 15 January 2008 and the project start date of 1 June 2017.

The parameter *q* is the number of days between the onset of degradation and the beginning of conversion. The conservative methodological default value of zero days was selected.

- **Baseline emissions from selected pools**

Cumulative baseline emissions were quantified using the BEM of the methodology. Since the soil carbon pool was conservatively excluded, the Soil Emissions Model (SEM) was not required. The BEM estimates total emissions from biomass due to both deforestation and degradation, including emissions as a result of industrial harvesting in the baseline scenario, according to sections 6.6-6.18, 8.1 and Appendices F and G of the methodology VM0009 v3.0.

- Calculating Baseline Emissions from Biomass

Cumulative baseline emissions from biomass ($E_{B\ BM}^{[m]}$) for F.p1.b project types were estimated using equation [F.19] of the VM0009 methodology:

$$E_{B\,BM}^{[m]} = BEM_{P1}\left(c_{P\,BM}^{[m=0]}, c_{B\,BM}^{[m]}, t^{[m]}, x^{[m]}\right)$$

Equation [F.2] estimates BEM_{P1} for F.p1.bprojects:

$$BEM_{P1}(c_P, c_B, t, x) = \frac{m(t - t_{PA})}{365(1 + e^{t - t_{SA} - t_{PA} - t_{PAI}})} + \frac{A_{PAA}(c_P - c_B)e^{t - t_{SA} - t_{PA} - t_{PAI}} + \frac{HA_{P1}(c_P, c_B)t}{t_{PL} - t_{PAI}}}{(1 + e^{t - t_{SA} - t_{PA} - t_{PAI}})\left[1 + e^{\ln\left(\frac{365A_{PAA}(c_P - c_B)}{m(t_{SA} - t_{PAI})} - 1\right) - \beta(t - t_{SA} - t_{PA} - t_{PAI}) - \theta(x_{SA} - x - x_{PAI})^{\gamma}}\right]} - HA_{P1}(c_P, c_B)$$

Where:

$$HA_{P1}(c_P, c_B) = \frac{m}{365(1 + e^{-t_{SA} - t_{PA} - t_{PAI}})} + \frac{A_{PAA}(c_P - c_B)e^{-t_{SA} - t_{PA} - t_{PAI}}}{(1 + e^{-t_{SA} - t_{PA} - t_{PAI}})\left[1 + e^{\ln\left(\frac{365A_{PAA}(c_P - c_B)}{m(t_{SA} - t_{PAI})} - 1\right) + \beta(t_{SA} + t_{PA} + t_{PAI}) - \theta(x_{SA} - x - x_{PAI})^{\gamma}}\right]}$$

- Calculating Baseline Carbon not Decayed in DW

Current emissions from DW were estimated using equation [F.35] of the VM0009 Methodology:

$$E^{[m]}_{B\,\Delta DW} = E^{[m]}_{B\,DW} - E^{[m-1]}_{B\,DW}$$

Carbon not decayed in DW is estimated using equation [F.36] of methodology:

$$C^{[m]}_{B\,DW} = \sum_{i \in M} DEM_{DW}\left(E^{[m]}_{B\,\Delta DW}, t, t^{[m-1]}, t^{[m]}\right)$$

The Decay Emissions Model for carbon in dead wood and below-ground biomass was based on the default VCS decay models for these pools. Carbon not decayed in DW was removed from annual baseline emissions.

- Calculating Carbon Not Decayed in BGB ($C_B{}^{[m]}$)

Current emissions from BGB are estimated using equation [F.31] of the methodology:

$$E^{[m]}_{B\,\Delta BGB} = E^{[m]}_{B\,BGB} - E^{[m-1]}_{B\,BGB}$$

Carbon not decayed in BGB is estimated using equation [F.32] of the methodology:

$$C_{B\,BGB}^{[m]} = \sum_{i \in M} DEM_{DW,BGB}\left(E_{B\,\Delta BGB}^{[i]}, t, t^{[m]}, t^{[i-1]}\right)$$

The Decay Emissions Model for carbon in dead wood and below-ground biomass was based on the default VCS decay models for these pools. Carbon not decayed in DW was removed from annual baseline emissions.

- Calculating Carbon Stored in WP

As described in section 3.4, all AGMT that is not considered slash is sequestered in long-lived wood products, specifically as roundwood, the primary timber export from PNG. The amount of carbon stored in wood products was determined using equation [C.1] of the VM0009 methodology:

$$C_{B\,WP}^{[m]} = (1-w)\left(E_{B\,AGMT}^{[m]}\right)\sum_{ty \in T} p_{ty}^{[m]} l_{ty}\left(1-f_{ty}\right)^{95}$$

The values for parameters w, $l_{t,y}$, and f_{ty}, were all taken from tables 8 and 9 of Appendix C of the methodology. Carbon stored in wood products is removed from the annual BEM estimate.

- Calculating Cumulative Baseline Emissions

Cumulative total baseline emissions were estimated using equation [F.16] of the methodology:

$$E_{B}^{[m]} = E_{B\,BM}^{[m]} - C_{B\,BGB}^{[m]} - C_{B\,DW}^{[m]} - C_{B\,WP}^{[m]}$$

This equation provided an estimate of baseline emissions for each monitoring period by subtracting carbon stored in the BGB, DW, and WP pools from the biomass emissions estimate provided by the BEM.

<u>Project Emissions</u>

The VM0009 methodology calculates project emissions from biomass from fire, burning, logging, or other disturbances. These emissions were calculated using equation [F.41] of the methodology:

$$E_{P\,\Delta}^{[m]} = E_{P\,\Delta\,BRN}^{[m]} + A_{PAA}\left(c_{P}^{[m-1]} - c_{P}^{[m]}\right) - C_{P\,\Delta\,WP}^{[m]}$$

- **Calculating Emissions from Changes in Project Stocks**

Changes in project stocks will be observed through monitoring of carbon stocks within each PAI during each monitoring period. Additional monitoring will include routine field patrols that will be supplemented with an analysis of remote sensing imagery to identify the full extent of disturbances.

The changes in carbon stocks were calculated as the difference between project stocks between the current and prior monitoring period, according to equation [F.41]:

$$E_{P\Delta}^{[m]} = E_{P\Delta BRN}^{[m]} + E_{P\Delta LS}^{[m]} + E_{P\Delta SF}^{[m]} + A_{PAA}\left(C_P^{[m-1]} - C_P^{[m]}\right) - C_{P\Delta WP}^{[m]}$$

Loss from burning, wood products, and leakage were accounted for separately as described below.

- **Calculating Emissions from Burning**

No planned project activity requires burning of biomass, and it is not expected, thus it is not be included in carbon accounting.

- **Calculating Carbon Stored in WP**

Although some level of timber harvesting is expected as a project activity at some point, the PP has not yet implemented any timber harvesting or made plans with community partners to begin developing artisanal timber projects. When this activity is implemented, project emissions from carbon stored in wood products will be calculated using equation [C.2] of the methodology and reported during each monitoring period:

$$C_{P\Delta WP}^{[m]} = (1-w)\sum_{ty\in T} C_{P\,ty}^{[m]} l_{ty}(1-f_{ty})^{95}$$

- **Ex-Ante Estimate of Project Emissions**

Initial project activities have had no negative impacts on carbon stocks within the initial project accounting area and there have been no identified disturbances during the initial monitoring period. Thus, project emissions for this initial monitoring period are 0 tCO2e (see section 4 of this report). However, in order to provide an ex-ante estimate of project emissions across the project lifetime, it was conservatively estimated that there will be 20 ha of deforestation annually within each PAI once it is added to the project. This is conservative because historical disturbances within the area are minimal (see Non-Permanence Risk Report) and the greatest threat to these forests, industrial logging, is already prohibited as main activity of the project.

At this time, it is not known how frequently PAIs will be added to the project or how large they will be since this will depend on adoption of the project by local communities. In order to provide an estimate of ex-ante project emissions, the project proponent has made the assumption that one or two additional PAIs will be added every year or every two years, beginning just with the current one (Kamlapar PAI) until the end of the 30 year project lifetime.

The emissions factor for each ha of deforestation in this scenario is estimated as the difference between total carbon stocks in the initial project accounting area and the proxy area. This is conservative as it ignores the decay over time of the BGB and DW pools.

The ex-ante estimates of project emissions ante estimate of project emissions across the project lifetime are provided in the following table:

Year	Number of PAIs	Total Deforestation (ha)	Estimated project emissions (tCO2e)
1	1	20	0
2	1	20	0
3	1	20	0
4	2	40	13,020
5	3	60	19,530
6	3	60	19,530
7	4	80	26,041
8	5	100	32,551
9	5	100	32,551
10	6	120	39,061
11	7	140	45,571
12	7	140	45,571
13	8	160	52,081
14	9	180	58,591
15	9	180	58,591
16	9	180	58,591
17	10	200	65,101
18	10	200	65,101
19	11	220	71,612
20	12	240	78,122
21	12	240	78,122
22	13	260	84,632
23	14	280	91,142
24	14	280	91,142
25	15	300	97,652
26	16	320	104,162
27	16	320	104,162
28	17	340	110,672
29	18	360	117,183
30	19	380	123,693
Total	-	**5,540**	1,783,779

<u>Leakage</u>

Both activity-shifting leakage and market leakage will be managed by delineating and monitoring leakage areas when and where necessary. The necessity of these leakage areas will depend on the primary and secondary agents included in the project and their logging activities and mobility within PNG. Section 4.3 of the PD discusses these two types of leakage in more detail, including when these

leakage areas are necessary and how their boundaries will be delineated. At validation and first verification, the initial PAI will not require either monitoring of activity-shifting or market leakage areas.

- Activity Shifting Leakage

Activity Shifting Leakage does not occur. As the primary project activity has been the prevention of the expansion of logging within the region, this leakage is mitigated by ensuring that commercial logging does not expand outside of the initial PAI into neighboring areas. In addition to the agreement with the Kamlapar clan, the project proponent already has agreements in place with 22 clans within the Konoagil LLG of New Ireland. Under these agreements, commercial logging rights have been transferred to the PP, who has committed to the implementation of this REDD+ project. Thus, there is no possibility for legal industrial logging to expand into areas outside the Kamlapar PAI or any other PAI when join the project: by including Eligibility Criteria #10, it will be prevented primary agents from enrolling only some of their lands in the project while continuing to log elsewhere. Secondary agents are similarly restricted due to limited access to logged areas as required for their conversion activities.

Additionally, the project proponent has made educational efforts alongside members of the Kamlapar Clan to build social capital through recognition of the legal and traditional rights they have to their land and forests. Recent efforts made by outside actors claiming logging rights to the area were rebuffed by local community members and reported to the PP, eliminating a potential expansion of illegal logging. Additonally, the PP has also provided employment opportunities to local community members that have participated in forest patrols as part of the teams completing the inventories. This employment provides an alternative livelihood that monitors any disturbances to forests both inside and outside of the Kamlapar PAI boundaries.

- Market Leakage

Market Leakage does not occur. As there has been no recent industrial logging within the Kamlapar PAI, there has been no change to the supply of wood products or other goods and services as a result of project activities. Thus, there has been no need to reduce demand for any such goods and services at this time. Per Eligibility Criteria #11 of PAIs, only areas in which there has been no industrial commercial timber project for at least 10 years prior to the PAI start date will be eligible to join the project.

<u>Net GHG Emission Reductions and Removals</u>

Gross Emissions Reductions (GERs) were calculated for each PAA at each monitoring period using equation [F.53] of the methodology:

$$F_{\Delta GER}^{[m]} = F_{D\Delta}^{[m]} \quad F_{P\Delta}^{[m]} \quad F_{L\Delta}^{[m]} \quad F_{U}^{[m]}$$

Equations for calculating baseline, project, and leakage emissions have been described above. Uncertainty deductions are calculated with equation [F.57] for each monitoring period as:

$$E_U^{[m]} = E_{B\,\Delta}^{[m]} \left[\frac{1.64}{E_{B\,\Delta}^{[m]} + A_{PAA} c_P^{[m]} + A_{PX} c_B^{[m]}} \sqrt{\left(U_{EM}^{[M]}\right)^2 + \left(U_P^{[m]}\right)^2 + \left(U_B^{[m]}\right)^2} - 0.15 \right]$$

Net Emissions Reductions (NERs) are estimated with equation [F.55]:

$$E_{\Delta\,NER}^{[m]} = E_{\Delta\,GER}^{[m]} - E_{BA}^{[m]}$$

The following ex-ante estimate emission reductions are for the entire designated geographic area based on BEM estimates for the first PAI in Kamlapar. This assumes that future PAIs will have similarly stocked forests and harvest areas to this first PAI, which may not be the case due to uncertainty for future PAIs. However, per the methodology, ex-ante estimates are only required to determine whether changes within carbon pools or increased GHG emissions due to project activities are insignificant. As the project has only conservatively excluded selected pools such as SDW and LDW will account for all significant emissions due to project activities, these ex-ante estimates are only meant to provide potential crediting estimates across the project lifetime.

Thus, estimated baseline emissions will change as future PAIs are added to the project. The addition of future PAIs will require delineation of the area of the PAA as well as an inventory of carbon stocks within that specific PAA. At this regard, reported baseline emissions are only an estimate that assumes that future PAIs will have similar areas and carbon stocks to the original PAI. This design for estimating ex-ante baseline emissions across all PAIs is the same as was done for ex-ante project emissions (see above in this section). Future reported baseline emissions will likely change significantly at verification events due to the addition of new PAIs and inventory results. Project emissions will vary based on actual monitored disturbances within each PAA.

Year	Estimated baseline emissions or removals (tCO_2e)	Estimated project emissions or removals (tCO_2e)	Estimated leakage emissions (tCO_2e)	Estimated net GHG emission reductions or removals (tCO_2e)
1	426,685	0	0	426,685
2	803,415	0	0	803,415
3	450,206	0	0	450,206
4	657,076	13,020	0	644,056
5	1,523,244	19,530	0	1,503,714
6	1,500,952	19,530	0	1,481,421
7	1,293,835	26,041	0	1,267,795
8	1,845,782	32,551	0	1,813,231
9	1,858,083	32,551	0	1,825,532
10	1,632,365	39,061	0	1,593,304
11	2,170,003	45,571	0	2,124,432
12	2,120,914	45,571	0	2,075,343
13	1,823,037	52,081	0	1,770,956
14	2,330,369	58,591	0	2,271,778
15	2,270,602	58,591	0	2,212,011
16	1,951,454	58,591	0	1,892,862
17	2,372,912	65,101	0	2,307,810
18	2,326,222	65,101	0	2,261,120
19	1,975,567	71,612	0	1,903,956
20	2,389,585	78,122	0	2,311,463
21	2,344,709	78,122	0	2,266,588
22	2,005,590	84,632	0	1,920,958
23	2,398,849	91,142	0	2,307,707
24	2,357,572	91,142	0	2,266,430
25	2,013,246	97,652	0	1,915,593
26	2,395,149	104,162	0	2,290,987
27	2,359,385	104,162	0	2,255,223
28	2,020,955	110,672	0	1,910,283
29	2,398,732	117,183	0	2,281,550
30	2,858,073	123,693	0	2,734,381
Total	**56,874,569**	**1,783,779**	**0**	**55,090,789**

AENOR deems that values are correct and consistent with the sources. The values and estimates presented in the PD are considered reasonable based on the documentation reviewed, further references and the result of the remote interviews.

The PD describes in an appropriate way with evidence and justifications how the project activity fulfills with the applicability conditions of the tool.

Based on the information reviewed, it can also be confirmed that the sources used are correctly quoted and interpreted in the PD and supporting documents. All assumptions and data indicated in the PD and all relevant sources were checked and confirmed.

In essence, the methodology was correctly applied following the requirements. All values in the PD are considered reasonable in the context of the proposed VCS project activity. Data sources are quoted

correctly. Hence, the calculation of baseline emissions, project emissions and the estimated net GHG emission reductions are considered correct.

3.4.7 Methodology Deviations

No deviations were detected from the applicable methodology.

3.4.8 Monitoring Plan

The objective of the monitoring is to quantify the emissions reductions achieved by the project during each monitoring period, and consists of four main components, as follows:

Activity	Frequency	Method
Forest Patrols and Community Observations	Once every reporting period	Patrol teams monitor project area perimeters and various routes through project area.
Plot Measurements	Once before every baseline update	Inventory teams re-inventory carbon stocks and merchantability within project area, proxy area.
Identification of Significant Disturbances	Once every reporting period	Technical team reviews remote sensing products, satellite imagery, and field teams conduct ground-based verification of disturbances if necessary.
Tracking and Recording of Harvest Volumes	When biomass harvesting occurs within project area	Harvesting volumes, species, and collateral damage is recorded as specified in prepared harvesting management plans if harvesting is carried out within the project area.

These core monitoring components were able to help the project technical team to accurately assess the project's effectiveness and VCU generation during this first monitoring period. As new project activities are carried out within the project area, their specific monitoring methods will be added to the NIHT monitoring plan.

The teams responsible for carrying out monitoring activities and the roles within each team are as follows:

Team	Tasks
Field Patrol Team	- Field Patrol Lead –responsible for carrying out patrol, noting all relevant patrol data and observations in field patrol forms, and conducting ground-truthing of any identified areas with disturbances. - Field Patrol Supports –optional support personnel that can contribute to patrol logs or can act as in-field support for lead.
Carbon Inventory Field Team	- Carbon Cruise Manager –responsible for training team members, conducting quality control checks, data recording and transcription, and conducting ground-truthing of any identified areas with disturbances. - Carbon Cruise Technicians –responsible for taking measurements in the field based on training and inventory protocol, support manager in data collection and transcription.
Technical Team	- Technical Manager –responsible for overseeing technical work to methodological and standard requirements, conducting quality control checks. - Technical Analyst –responsible for conducting technical analyses related to remote sensing and carbon stock quantification, quality control checks.

The primary project activity is to prevent legal and illegal industrial logging within the project area and the cascading deforestation that typically follows these types of timber projects. During this monitoring period, the proponent carried out forest monitoring activities in conjunction with the forest inventory. Forest inventory crews were also trained to socialize information regarding the REDD+ project to community members during the inventories. There were no instances of encroachment or logging reported from the inventory team. In addition to on the ground monitoring, satellite imagery was acquired to manually detect changes in forest cover 10 years prior to the project start date. All non-forest areas that were identified in the PAI area were not included in the PAA.

During this monitoring period, NIHT hired and trained local PNG teams to perform the timber inventory and monitoring and created supervisory roles for community members who will oversee future timber cruises. Moreover, the project proponent hired and trained a member of the Kamlapar Clan to oversee the training and management of additional lead accountants. NIHT plans to hire additional staff for management and administrative positions at community centers and to assist with various aspects of the monitoring and reporting of activities.

The monitoring plan presented in the PD complies with the requirement of the methodology. The assessment team checked all parameters presented in the monitoring plan against the requirements of the methodology. For the monitoring of carbon stock changes, the requirements and parameter list as per methodology and associated tools were followed.

The list of parameters available at validation and the values used was also checked by AENOR and it is deemed complete and consistent with calculations and assumptions considered. The following table summarizes the data/parameters available at validation:

Data/Parameter available at validation	Value	Assessment procedure and result
α Combined effects of β and θ at the start of the historic reference period	-3.7278244	Correctly estimated. Correctly inputted in the calculation spreadsheets.
β Effect of time on the cumulative proportion of conversion over time	0.0004784	Correctly estimated. Correctly inputted in the calculation spreadsheets.
γ Time shift from beginning of historic reference period to project start date	-3425	Correctly estimated. Correctly inputted in the calculation spreadsheets.
$\hat{\sigma}_{EM}$ Estimated standard deviation of the state observations used to fit the logistic function	0.103	Correctly estimated. Correctly inputted in the calculation spreadsheets.
A_{PAA} Area of project accounting area	10443.029	Value is consistent with GIS data. Correctly inputted in the calculation spreadsheets.
A_{PX} Area of proxy area	447.722	Value is consistent with GIS data. Correctly inputted in the calculation spreadsheets.
m Average carbon in merchantable trees cut each year as a result of legally sanctioned commercial logging	1,581,020.5	Correctly estimated. Correctly inputted in the calculation spreadsheets.
n_d Number of spatial points in the reference area	831	Value is consistent with GIS data. Correctly inputted in the calculation spreadsheets.
$P_{L\,ME}$ Portion of leakage related to market	0	Correctly estimated.
q Lag between start of degradation and conversion	0	Correctly estimated. Correctly inputted in the calculation spreadsheets.
r_{RS} Expansion factor for above-ground biomass to below-ground biomass (root/shoot ratio)	0.37	Value is consistent with original source. Correctly inputted in the calculation spreadsheets.

Data/Parameter available at validation	Value	Assessment procedure and result
t_{PA} Time prior to the project start date when the primary agent began commercial logging in the project accounting area	0	Correctly estimated. Correctly inputted in the calculation spreadsheets.
t_{PL} Length of project crediting period	10,957.5	Correctly estimated. Correctly inputted in the calculation spreadsheets.
t_{SA} Arrival time of secondary agents after start of commercial logging	730	Conservative value. Correctly inputted in the calculation spreadsheets.

The list of parameters to be monitored is the following:

Data/Parameter monitored	Value	Assessment procedure and result
$A_{P_1}^{[m=0]}$ Area of project accounting area stratum 1 prior to first verification event	10443.029016	Value is consistent with GIS data. Correctly inputted in the calculation spreadsheets.
$c_B^{[m]}$ Baseline carbon stocks at the end of the current monitoring period	140.36	Correctly estimated.
$c_{B\ BGB}^{[m]}$ Carbon not decayed in BGB at the end of the current monitoring period	726,840	Correctly estimated.
$c_{B\ DW}^{[m]}$ Carbon not decayed in DW at the end of the current monitoring period	765,143	Correctly estimated.
$c_{B\ WP}^{[m]}$ Carbon not decayed in WP at the end of the current monitoring period	277	Correctly estimated.
$c_{B\ AGMT}^{[m]}$ Baseline carbon stocks in above ground merchantable trees at the end of the current monitoring period	45.5	Correctly estimated.
$c_{B\ BGMT}^{[m]}$	16.8	Correctly estimated.

Data/Parameter monitored	Value	Assessment procedure and result
Baseline carbon stocks in below ground merchantable trees at the end of the current monitoring period		
$c_{P\ AGMT}^{[m=0]}$ Project carbon stocks in above ground merchantable trees at project start	296.5	Correctly estimated.
$c_{P\ BGMT}^{[m=0]}$ Project carbon stocks in below ground merchantable trees at project start	109.7	Correctly estimated.
$c_{B\ b}^{[m]}$ Baseline scenario average carbon stock in selected carbon pools	140.4	Correctly estimated.
$c_{B\ BM}^{[m]}$ Baseline carbon stocks in biomass at the end of the current monitoring period	140.4	Correctly estimated.
$c_{P}^{[m]}$ Project carbon stocks at the end of the current monitoring period	465.9	Correctly estimated.
$c_{P}^{[m-1]}$ Project carbon stocks at the beginning of the current monitoring period	465.9	Correctly estimated.
$c_{P}^{[m=0]}$ Project carbon stocks prior to first verification event	465.9	Correctly estimated.
$c_{P\ 1\ BM}^{[m=0]}$ Project carbon stocks in stratum 1 prior to first verification event	465.9	Correctly estimated.
$c_{P\ AMGT}^{[m=0]}$ Project carbon stocks in above ground merchantable trees at project start	296.5	Correctly estimated.
$c_{P\ BM}^{[m=0]}$ Project carbon stocks in biomass prior to first verification event	465.9	Correctly estimated.

Data/Parameter monitored	Value	Assessment procedure and result
$c_{P\ b}^{[m]}$ Average carbon in biomass in the project accounting area	465.9	Correctly estimated.
$c_{P\ 1\ b}^{[m=0]}$ Average carbon in biomass for project accounting area stratum 1	465.9	Correctly estimated.
$C_{P\ \Delta WP}^{[m]}$ Project carbon stocks in wood products at the end of the current monitoring period	0	Correctly estimated.
$E_{\Delta GER}^{[m]}$ GERs for the current monitoring period	1,680,306	Correctly estimated.
$E_{\Delta GER}^{[i]}$ GERs for monitoring period i	1,680,306	Correctly estimated.
$E_{\Delta NER}^{[i]}$ NERs for monitoring period i	1,327,442	Correctly estimated.
$E_{B}^{[m]}$ Cumulative baseline emissions at the end of the current monitoring period	1,680,306	Correctly estimated.
$E_{B}^{[m-1]}$ Cumulative baseline emissions at the beginning of the current monitoring period	0	Correctly estimated.
$E_{B\ \Delta}^{[m]}$ Change in baseline emissions	1,680,306	Correctly estimated.
$E_{B\ \Delta BGB}^{[i]}$ Change in baseline emissions from below-ground biomass during monitoring period i	129,985	Correctly estimated.
$E_{B\ \Delta DW}^{[i]}$ Baseline emissions from dead wood in monitoring period i	135,820	Correctly estimated.
$E_{B\ AGMT}^{[i]}$ Cumulative baseline emissions from above ground commercial trees at the end of the current	2,337,699	Correctly estimated.

Data/Parameter monitored	Value	Assessment procedure and result
monitoring period		
$E_{B\ BGB}^{[m]}$ Cumulative baseline emissions from below-ground biomass at the end of the current monitoring period	726,840	Correctly estimated.
$E_{B\ BGB}^{[m-1]}$ Cumulative baseline emissions from below-ground biomass at the beginning of the current monitoring period	0	Correctly estimated.
$E_{B\ BM}^{[m]}$ Cumulative baseline emissions from biomass at the end of the current monitoring period	3,172,566	Correctly estimated.
$E_{B\ DW}^{[m]}$ Cumulative baseline emissions from dead wood at the end of the current monitoring period	900,963	Correctly estimated.
$E_{BA}^{[m]}$ Cumulative emissions allocated to the buffer account at the end of the current monitoring period	352,864	Correctly estimated.
$E_{L}^{[m]}$ Cumulative emissions from leakage at the end of the current monitoring period	0	Correctly estimated.
$E_{L}^{[m-1]}$ Cumulative emissions from leakage at the beginning of the current monitoring period	0	Correctly estimated.
$E_{L\ \Delta}^{[m]}$ Change in emissions due to leakage	0	Correctly estimated.
$E_{L\ ASF}^{[m]}$ Cumulative emissions from activity-shifting leakage in forested strata at the end of the current monitoring period	0	Correctly estimated.
$E_{L\ ME}^{[m]}$ Cumulative emissions from market effects	0	Correctly estimated.

Data/Parameter monitored	Value	Assessment procedure and result
leakage at the end of the current monitoring period		
$E_{P\,\Delta}^{[m]}$ Change in project emissions	0	Correctly estimated.
$E_{u}^{[m]}$ Cumulative confidence deduction at the end of the current monitoring period	0	Correctly estimated.
$p_{SL}^{[m]}$ Proportion of AGMT that is not merchantable and goes into slash estimated from inventory	0.385	Correctly estimated.
$t^{[i-1]}$ Time from project start date to beginning of monitoring period i	0	Correctly estimated.
$t^{[m-1]}$ Time from project start date to beginning of current monitoring period	0	Correctly estimated.
$U_{B}^{[m]}$ Total uncertainty in proxy area carbon stock estimate	38.32	Correctly estimated.
$U_{EM}^{[M]}$ Total uncertainty in Baseline Emissions Models	0.103	Correctly estimated.
$U_{P}^{[m]}$ Total uncertainty in proxy area carbon stock estimate	27.05	Correctly estimated.
$WC_{Pi}^{[m=0]}$ Weighted average carbon stocks for biomass or SOC in the project for the set of selected strata	465.9	Correctly estimated.

The procedures described in section 5.3 of the PD and section 4.3 in MR were reviewed by AENOR team and cross-checked against the applicable methodology and associated tools and were reproduced by the monitoring team on the field during the site visit. The audit team found to be in compliance with methodological requirements, and good practice as defined.

In the opinion of the AENOR team, all necessary parameters required by the selected methodology are contained in the monitoring plan. They are clearly described, and the means of monitoring detailed in the plan comply with the requirements of the methodology. Tables in section 5.1 and 5.2 of the PD and 4.1 and 4.2 detail the different data variable to monitor along with the data unit, recording frequency, purpose of data, QA/QC, etc. Thus, the monitoring plan is in compliance with the applicable methodology

The sampling design and stratification is also detailed in section 5 of the PD and 4 in MR. Equations for the estimation of the sample size have been checked by the audit team. Temporary sampling plots were used for sampling over time to measure and monitor changes in carbon stocks of tree biomass.

As stated in Section B.1.3 of the VM0009 methodology, there are no specific requirements with regard to the plot sample size, but instead credit generation is discounted based on the magnitude of the sampling error (uncertainty deduction depending on the standard error found within monitoring measurements above). Thus, the sample size was not determined with any desired precision. However, if the precision of the initial sample size results in a confidence deduction (according to F.57 of the methodology), the PP may decide to add additional plots to the sample in order to reduce this deduction. The results from equation F.57 of the methodology found that the project is not required to take an uncertainty deduction for this monitoring period and no additional sampling was completed.

In opinion of the AENOR assumptions considered for sampling design are reasonable and credible and consistent with calculation. Thus, AENOR deems the sampling plan correct.

After the review of evidence provided by the PP, interviews and communications with PP, AENOR confirms that monitoring arrangements described in the monitoring plan are feasible within the PD and that the means considered for the implementation, including data management, quality and assurance control procedures, are sufficient to ensure that the GHG net anthropogenic removals achieved resulting from the proposed VCS project activity can be reported ex post and verified. Therefore, in opinion of the AENOR team, the PP is able to implement the monitoring plan.

3.5 Non-Permanence Risk Analysis

PP has elaborated VCS Non permanence Risk Report for the validation process according to the AFOLU Non-Permanence Risk Tool v4.0. Below, it is explained the assessment and the issues raised on regard the non-permanence risk rating determined by the PP in the report dated on 27nd July 2020.

Risk factor	Risk Rating	Findings and mitigation activities
Internal Risks		
Project Management: It is assessed using table 1 of the VCS AFOLU Risk Tool.	-2	a) Not applicable. GHG credits are not based on planted species. Moreover, no GHG credits have previously been issued. Risk rating = 0. Properly justified. b) There is currently no known risk of encroachment in the project area by outside actors. Furthermore, no GHG credits have been previously been issued. Risk rating = 0. Properly justified. c) Management team includes individuals with significant experience in all skills necessary to successfully undertake project activities. See (e) below. Risk rating = 0. Properly justified. d) In country management currently consists of two members that maintain a presence in country that is less than a day's travel from the project area. Moreover, NIHT plans to hire additional in country management staff. Risk rating = 0. Properly justified. e) Management team includes individuals with significant experience in all skills necessary to successfully undertake project activities. The management team consists of project proponent(NIHT)which possesses a wealth of experience in accounting, human resources, technology, development projects, budgets, and project administration(see: "NIHT Management_v1.0". Monitoring and quantification of project GHG emissions reductions will be provided by the ecoPartners team. Risk rating = -2. Properly justified. f) Not applicable. Risk rating = -0 Properly justified.
Financial viability: It is assessed using table 2 of the VCS AFOLU Risk Tool.	0	a) – c) Not applicable. See (d) below. Risk rating = 0. Properly justified. d) Project has met the cash flow breakeven point as of 2019. See Budget and Cash Flow Breakeven spreadsheet. Risk rating = 0. Properly justified. e) – g) Not applicable. See (h) below. Risk rating = 0. Properly justified. h) Project has met the cash flow breakeven point as of 2019 (Budget and Cash Flow Breakeven spreadsheet). Risk rating = 0. Properly justified. i) Not applicable. Risk rating = 0. Properly justified.

Risk factor	Risk Rating	Findings and mitigation activities
Opportunity Cost: It is assessed using table 3 of the VCS AFOLU Risk Tool.	6	a) The baseline land use scenario for the Kamlapar PAI, and project area, is industrial logging. Industrial logging produces high net revenues and financial returns for the logging companies. The NPV analysis determined that the NPV of commercial logging was more than 100% of the Project Activity. Therefore the Project applied the highest opportunity cost rating possible in the risk assessment. Risk rating = 8. Properly justified. b) - f) Not applicable. See (a) above. Risk rating = 0. Properly justified. g) Not applicable. Project proponent is not a non-profit organization as defined in Section 2.2.3 of the VCS Non Permanence Risk Tool V4.0. Risk rating = 0. Properly justified. h) Mitigation: Project is protected by legally binding commitment to continue management practices that protect the credited carbon stocks over the length of the 30 year project crediting period (see project longevity). Risk rating = -2. Properly justified. i) Not applicable. Risk rating = 0. Properly justified.
Project Longevity: It is assessed using table 4 of the VCS AFOLU Risk Tool.	15	a) Not applicable. See (b) below. Risk rating=0 is justified. b) The project has all necessary documents in place that demonstrates standing timber rights and the support of the Kamlapar ILG and New Ireland Provincial Government (Contract for Sale of Hardwood Timber), as well as a signed Carbon Credit Contract agreement indicating NIHT will develop the timber assets within the Kamlapar ILG boundaries (Kamlapar Contract Final). As stated in the Carbon Credit Contract, it is understood by the ILG that this is a 30-year program that will provide carbon credit revenue to the clan for that time period. It also binds the ILG to the contract for 30 years. Project activities will be maintained for 30 years from the beginning of the project start date (i.e. Project longevity). Risk rating= 30–(30/2) = 15 is justified.
Total internal risk = 19 (total may not be less than zero)		
External Risks		
Land Tenure and resources access/impact: It shall be assessed using table 6	2	a) Not applicable. See (b) below. Risk rating = 0. Properly justified. b) Papua New Guinea enacted the Land Groups Incorporated Act in 1974, which allows clans to form Incorporated Land Groups (ILGs)and register customary landowning units, giving them legal recognition and land rights. The Project Proponent, NIHT entered into a contractual agreement with the

Risk factor	Risk Rating	Findings and mitigation activities
of the Risk Tool.		Kamlapar ILG to manage the standing timber and carbon credits. Therefore, the project proponent and the land owner are separate entities. Risk rating = 2. Properly justified. c) There are no existing disputes over land tenure or ownership in the project area. Risk rating = 0. Properly justified. d) Not applicable. Clear access/land user ights. Risk rating = 0. Properly justified. e) Not applicable. This project does not have a WRC component. Risk rating = 0. Properly justified. f) Not applicable. The Project area is not protected by a legally binding commitment, such as a conservation easement or protected area. Risk rating = 0. Properly justified. g) Not applicable. Risk rating = 0. Properly justified.
Community engagement: It shall be assessed using table 7 of the Risk Tool.	-5	a) Approximately 80% of the community members of the Kamlapar ILG have been consulted and have been an integral part of project development. Risk rating = 0. Properly justified. b) More than 20% of the communities who live within 20km of the Project boundaries and who rely on resources within the Project Area (such as fishing and subsistence agriculture) were consulted throughoutthe project development stage and continue to be the focus of on-going community consultation by NIHT. Risk rating = 0. Properly justified. c) The project plans to seek CCB validation and verification in the future. At this point, the project is working directly with the Kamlapar ILG to ensure that the revenue generated by carbon credit sales are distributed to all Clan individuals equitably and based on the benefit distribution mechanisms designed by the clans with their own buy-in and decision making processes. Risk rating = -5. Properly justified.
Political Risks: It shall be assessed using table 8 of the Risk Tool.	2	a) N.A. See (b) below. Risk rating = 0. Properly justified. b) Papua New Guinea presents a score of -0.56according to the World Bank Institute´s Worldwide Governance Indicators. Risk rating = 4. Properly justified. c) - e) N.A. See (b) above.

Risk factor	Risk Rating	Findings and mitigation activities
		Risk rating = 0. Properly justified. f) Papua New Guinea is receiving REDD+ readiness funding from the World Bank FCPF and UN-REDD. Risk rating = -2. Properly justified.
Total external risks = 0 (Total may not be less than zero)		
Natural risks		
Fire Risk: It shall be assessed using table 10 of the Risk Tool.	LS*M= 0	Significance: Insignificant Likelihood: Every 50 to less than 100 years Score (LS): 0 Mitigation (M) 1 (none) Significance, likelihood, and mitigation are properly justified.
Pest and disease outbreaks: It shall be assessed using table 10 of the Risk tool.	0	Significance: Insignificant Likelihood: Every 50 to less than 100 years Score (LS) 0 Mitigation 1 (none) Significance, likelihood, and mitigation are properly justified.
Extreme weather: It shall be assessed using table 10 of the Risk tool.	0	Minor significance. Significance: Insignificant Likelihood: Every 50 to less than 100 years Score (LS): 0 Mitigation: 1 (none) Significance, likelihood, and mitigation are properly justified.
Geologic risks: It shall be assessed using table 10 of the Risk Tool.	2	No carbon stock losses expected to be cause by geological risks. Thus LS= 0 is reasonable. Mitigation (M) measures: none. Then, M=1 is reasonable. Significance: Minor Likelihood: Every 10 to less than 25 years Score (LS): 2 Mitigation: 1 (none)
Total natural risks = 2		
OVERALL RISK RATING = 19 + 0 + 2 = 21. Then a minimum risk of 21% is considered.		

The non-permanence risk deduction to be applied for the project is 21%.

AENOR has checked that information provided in the Non-Permanence Risk Report is consistent with the support documents provided, and each risk factor was thoroughly assessed for conformance against proper rationale, assumptions and justifications. AENOR deems that information provided is reliable and appropriate. Thus, the overall risk rating is credible and realistic.

4 VERIFICATION FINDINGS

4.1 Accuracy of GHG Emission Reduction and Removal Calculations

All calculations of greenhouse gas emission reductions were checked by the audit team. No errors were discovered that materially affect the stated greenhouse gas emission reductions of the project during the monitoring period. The methods used to estimate greenhouse gas benefits of the project were consistent with the methodology and the validated part of the project.

The project is a grouped project that will eventually include multiple PAIs within the designated geographic area. The project is beginning with only the Kamlapar PAI for this initial monitoring period. The start date for the Kamlapar PAI is the same as the project start date, June 1, 2017.

NIHT Field Measurement Protocol was followed for inventory procedures, plot allocation, and measurement within the PAA in PAI Kamlapar. PAA PAI was stratified into harvestable and non-harvestable areas. Total average carbon in biomass in the PAA ($[m]$) was estimated from the sum of the two primary pools, aboveground and belowground biomass. Aboveground biomass was measured in the field in both strata while belowground biomass was derived from the aboveground biomass using the IPCC default root-to-shoot ratio of 0.37. Weighted averages based on the relative sizes of the strata were used to make these estimates. Aboveground biomass and carbon stocks in merchantable trees ($C_{B[m]=0}$) were estimated from measurements of trees exceeding a merchantable size of 50 cm DBH, only within the harvestable stratum. Belowground biomass and carbon stocks of merchantable trees ($C_{B[m]=0}$) were estimated with the same default root-to-shoot ratio within this sub-sample of trees. The estimated carbon stocks, standard errors, and sample size for each stratum in the PAA is as follows (NIHT_KamlaparILG_Treelist).

Carbon Pool	Stratum	Average Carbon Stock Value (tCO2e ha-1)	Standard Error (tCO2e ha-1)	Sample Size
Total Average Carbon Across all Pools ($\mathbf{C_{Pb}}^{[m]}$)	All	465.9	27.1	145
Total Average Carbon Across all Pools ($\mathbf{C_{Psb}}^{[m]}$)	Harvestable	493.4	39.7	106
Total Average Carbon Across all Pools ($\mathbf{C_{Psb}}^{[m]}$)	Non-Harvestable	385.3	71.6	39
$\mathbf{C_{BAGMT}}^{[m]=0}$	Harvestable	317.4	27.9	106
$\mathbf{C_{BAGMT}}^{[m]=0}$	Harvestable	117.4	10.3	106

Thus, there are only two strata for the initial PAI. The harvestable stratum has the highest total carbon stocks at 493.4 tCO2e ha-1 while the not harvestable stratum has total average carbon stocks of 385.3 tCO2e ha-1.

As this is the first verification event for the NIHT project and the Kamlapar PAI, the plots in the Kamlapar ILG have only been measured once. The first set of plots was measured in mid-2019 while the remaining plots were measured in early 2020.

Measurement methods established in the document 'NIHT Field Measurement Protocol' follow the measurement methods set out in Appendix B of the VM0009 Methodology and there are no deviations for this monitoring period.

There has been no commercial harvesting in the Kamlapar PAI and thus there are no log export monitoring records.

<u>Baseline Emissions</u>

Current baseline emissions $E_{B\Delta^{[m]}}$ are 1,680,306 tCO2e during this first monitoring period. Cumulative baseline emissions as of the end of the first monitoring period for each selected biomass pool are included in table below (NIHT Accounting Model). No soil emissions or pools are included as they soil organic carbon is not an included pool. The equations and calculations for these emissions are taken from the VM0009 Methodology and were included in the Baseline Emissions section of the PD and justified within section 3.4.6 Quantification of GHG Emission Reductions and Removals (above in this report).

Emissions Pool	VM0009Parameter	Total Emissions in First Monitoring Period (tCO2e)
Biomass Emissions Model	$\mathbf{E_{BBM}}^{[\mathbf{m}]}$	3,172,566
Carbon not Decayed - BGB	$\mathbf{C_{BBGB}}^{[\mathbf{m}]}$	-726,840
Carbon not Decayed - DW	$\mathbf{C_{BDW}}^{[\mathbf{m}]}$	-765,143
Carbon not Decayed - WP	$\mathbf{C_{BWP}}^{[\mathbf{m}]}$	-277
Cumulative Baseline Emissions	$\boldsymbol{E_B}^{[\boldsymbol{m}]}$	1,680,306

As of the end of the current and first monitoring period, it is estimated that the amount of carbon stored in DW ($^{[m]}$) is 765,143 tCO2e.

As of the end of the current and first monitoring period, it is estimated that cumulative baseline emissions from DW ($^{[m]}$) are 135,820 t CO2e. This is calculated by taking the difference between cumulative carbon initially stored in DW (prior to any decay (900,963 tCO2e) and carbon stored in non-decayed DW at the end of the current monitoring period (765,143 tCO2e). It is based on default VCS decay models for DW, which assumes a decay period of 10 years.

Cumulative baseline emissions from AGMT ($E_B{}^{[m]}$) for the current monitoring period are estimated to be 2,337,699 tCO2e.

As this is the first monitoring period, baseline emission from DW ($^{[m]}$) are 0 tCO2efor all prior monitoring periods.

As this is the first monitoring period, baseline emission from AGMT ($E_B{}^{[m]}$) are 0 tCO2e for all prior monitoring periods.

As of the end of the current and first monitoring period, it is estimated that the amount of carbon stored in non-decayed BGB ($C^{[m]}$) has a value of 726,840 tCO2e.

Cumulative baseline emissions from decayed BGB ($E^{[m]}$) for the current monitoring period are estimated to be 129,985 tCO2e. This is calculated by taking the difference between cumulative carbon initially stored in BGB of felled trees (prior to any decay, calculated by equation F.31 of the VM0009 Methodology) as of the end of the current monitoring period (856,825 tCO2e) and carbon stored in non-decayed BGB at the end of the current monitoring period (726,840 tCO2e). It is based on default VCS decay models for BGB, which assume a decay period of 10 years.

As this is the first monitoring period, baseline emission from BGB ($E^{[m]}$) are 0 tCO2e for all prior monitoring periods.

Carbon stored in long-lived wood products ($^{[m]}$) after 100 years are estimated to be 277 tCO2e. All AGMT that is not considered slash is sequestered in long-lived wood products, specifically as roundwood, the primary timber export from PNG. The proportion slash is calculated from the merchantable biomass of each tree compared to the total biomass and calculated within the harvestable stratum within the workbook 'NIHT_KamlaparILG_Treelist'.

<u>Project Emissions</u>

Project emissions calculations are described within section 3.4.6 Quantification of GHG Emission Reductions and Removals (above in this report).

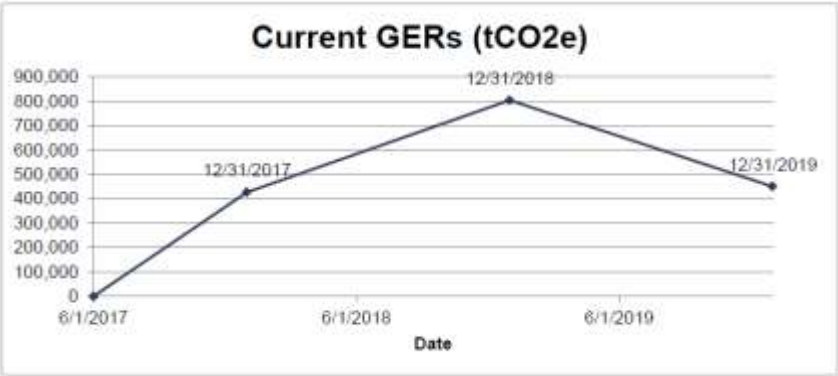
The VM0009 Methodology captures carbon emissions by measuring changes in carbon stocks over time. As this is the first verification event for the Kamlapar PAI, occurring simultaneously alongside project validation, there have been no changes to carbon stocks within the initial PAI. Any disturbances to forest carbon stocks are being primarily observed through forest patrols (fires, logging, etc.), which have not made note of any significant disturbances. Additional observations for large-scale disturbances are made at the end of each monitoring period using satellite imagery. Landsat images near both the beginning and end of the monitoring period were downloaded and compared. No significant disturbances to forest carbon stocks are observable. Thus, project emissions within the Kamlapar PAI during this initial monitoring period are 0 tCO2e.

<u>Leakage</u>

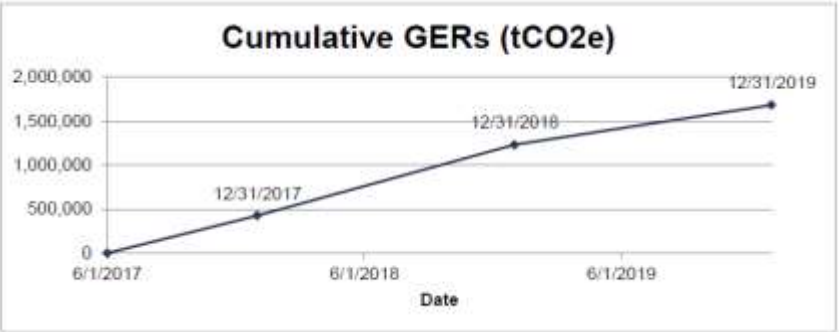
At validation and first verification, the initial PAI will not require either monitoring of activity-shifting or market leakage areas (0 tCO2e). as justified in within section 3.4.6 Quantification of GHG Emission Reductions and Removals (above in this report).

Net GHG Emission Reductions and Removals

Gross Emissions Reductions (GERs) for the current monitoring period are 1,680,306 tCO2e (same as estimated baseline emissions or removals, since projects emissions and leakage emissions are 0). This figure demonstrates annual vintage year GERs:



This figure shows cumulative GERs across the first monitoring period.



The confidence deduction ($^{[m]}$) is estimated to be 0 tCO2e for this monitoring period (see section 4.2 in this report). Standard errors and their sources used to determine this confidence deduction are included below. The confidence deduction calculations and specific sources for uncertainty calculations are found in the 'NIHT_Accounting Model'.

Uncertainty Source	Value	VM0009 Parameter Derived from Source	Description	Source
Logistic Function of Conversion in Reference Area	0.10 (unitless)	$U_{EM}{}^{[m]}$	Total uncertainty in Baseline Emissions Model	Reference Area Point Interpretation
PAA Inventory	27.75 tCO2e	$U_{P}{}^{[m]}$	Total SE of all pools estimated from PAA inventory	Kamlapar PAI Inventory and Treelist
Proxy Area Inventory	38.32 tCO2e	$U_{B}{}^{[m]}$	Total SE of all pools estimated from proxy area inventory	Proxy Area Inventory and Treelist

The buffer account allocation was determined by following the requirements of VCS Standard v4.0. The document 'NIHT Non-Permanence Risk Report for Kamlapar PAI' provides the details on how the risk rating of 21% was determined (see section 3.5 Non-Permanence Risk Analysis in this report). The buffer account allocation is calculated per the following equation:

$$E_{BA}^{[m]} = E_{\Delta GER}^{[m]} * RR_{PAI}^{[m]}$$

The parameter $R^{[m]}$ is the risk rating for the current monitoring period, which has a value of 21%.

Quantified NERs for the current monitoring period are 1,327,442 tCO2e. NERs are calculated from equation F.55 of the VM0009 Methodology (justified in section 3.4.6 Quantification of GHG Emission Reductions and Removals above in this report), considering that Net Emissions Reductions (NERs) are GERs minus buffer account allocation, which is equivalent to a Verified Carbon Unit (VCU).

The current monitoring period extends from 1 June 2017 - 31 December 2019, covering the three vintage years of 2017, 2018, and 2019. NER estimates for these three years are provided in the following table:

Vintage Year	NERs (tCO2 e)
2017	337,081
2018	634,698
2019	355,663
Total	**1,327,442**

This is the first monitoring period for this project and verification and validation are occurring simultaneously. Ex-ante estimates are based on the results of this initial PAI and there is no deviation between the numbers presented in ex-ante estimations in PD and ex-post estimations in MR for the current monitoring period.

The following table summarizes carbon accounting estimates, including baseline, project, and leakage emissions, including buffer pool allocation and total VCUs by vintage year:

Year	Baseline emissions or removals (tCO2e)	Project emissions or removals (tCO2e)	Leakage emissions (tCO2e)	Net GHG emission reductions or removals (tCO2e)	Buffer pool allocation	VCUs eligible for issuance
2017	426,685	0	0	426,685	-89,604	337,081
2018	803,415	0	0	803,415	-168,717	634,698
2019	450,206	0	0	450,206	-94,543	355,663
Total	**1,680,306**	**0**	**0**	**1,680,306**	**-352,864**	**1,327,442**

In order to verify the accuracy and consistency of parameters monitored and used to calculate the removals achieved for the monitoring period, the AENOR verification team reproduced the calculations checking the correctness of the formulae applied and assumptions used, when applicable and that values used matched with data sources.

AENOR checked that the list of parameters to be monitored was complete and consistent with information in the monitoring plan of the PD.

After a deep and thorough review and reproduction of calculations and the corresponding tracks to the other spreadsheets, AENOR deems the parameters monitored are correct, reliable and consistent. Information in the monitoring report and it is in compliance with the PD, the calculations provided and the applicable methodology. Then, the results showed in the monitoring report are reliable, consistency and accuracy regarding the carbon accounting estimates, including baseline, project, and leakage emissions, and buffer pool allocation and total VCUs by vintage year.

4.2 Quality of Evidence to Determine GHG Emission Reductions and Removals

The technical team is responsible for carrying out all quality control measures on remote sensing, carbon stock estimates, and GHG quantification. The timber cruise manager is responsible for carrying out all quality control checks of field data and for ensuring that the data collected is done in keeping with the inventory protocol. If there a systematic deviation is found in the measurement and re-measurement of the parameter, the deviation is to be investigated and resolved. When updating data stored electronically, the file should be versioned.

A 3-day training (21-23 October, 2018) was held to train field crews on proper inventory collection. An initial training was held in the village of Watpi in the province of New Ireland, and was attended by the team leaders, as well as a number of individuals that could participate in the data collection. The initial training reviewed the principles of the inventory protocol and specifically focused on the basics –DBH, clinometer use, and slope correction. The training was led by members of the management team from both NIHT and EP Carbon to ensure topics were covered thoroughly and translated for comprehension. The second training covered the use of the inventory protocol: identifying and establishing plot center, laying out a plot, slope correction, measurements of dead, forked, irregular, buttressed and fallen trees, and taking all necessary measurements.

The timber cruise manager minimized error by working to check the identification of tree species and diameter measurements and by reviewing the data collected and inputted. To reduce and eliminate transcriptional error, a subset of spreadsheets was proofed by re-reading the field notebooks and comparing it to the data that was entered. Checks were also made for any values or variables that are outliers against the recorded data, and corrected if deemed to be transcription errors. All publically available satellite data used in monitoring, validation, verification and certification was archived and made available to auditors. Inventory plot sheets were saved both digitally as PDFs while physical copies of the sheets were saved within the field office.

Additional QA/QC checks were made by the technical team that reviews and analyzes the data. Initial checks identified any outliers in the data, specifically with regards to height and diameter at breast height that would suggest a transcription error. Due to the large range of sizes in trees found within the project area, no specific value was identified as an outlier value. Instead, the tree list was sorted by both height and DBH and the trees with higher and lower values were manually checked on the plot sheets. Identified transcription errors were then corrected in the tree list. Species names were also

confirmed by checking that there were not multiple spellings or names for the same species. This ensured that the wood gravity lookup accurately identifies the appropriate value for that species.

An additional QA/QC measure was to check that merchantable biomass did not exceed total biomass for any tree as this would indicate either a transcription or measurement error. If a tree did not pass any of these checks, plot sheets were manually checked to ensure that data was correctly transcribed. If it is not, the values are corrected in the tree list. If it is not clear if the data was correctly transcribed from the plot sheet, the technical team informed the PP, who worked with the lead forester to correct this error. If the forester was able to identify the issue by reviewing the plot sheet and notes, the PP informed the technical team and an update was made to the tree list. All identified issues were able to be addressed without re-visiting plots in the final inventories, although issues were identified in an initial pilot cruise completed in early 2019. Rather than attempt to rectify these issues, the inventory was dropped and all plots were re-sampled after clarifications were made to field crews.

The above QA/QA procedures were confirmed in interview with EcoPartners and timber cruise manager and members, as wells al inventory procedures (NIHT Field Measurement Protocol) and cross-checking a sample of plots (Proxy area: #4, 6, 12, 15, 28, 3, 8, 16, 26, 33; Kamlapar PAI: #12, 33, 105, 171, 220, 20, 44, 111, 168, 203).

Once the analysis of the inventory data had been completed, the combined standard error for all pools was calculated within the treelist using equation B.34 of the VM0009 methodology:

For estimates of the PAA:

$$U_p = \sqrt{\sum_{j \epsilon c} U_j^2}$$

For estimates of the proxy area:

$$U_B = \sqrt{\sum_{j \epsilon c} U_j^2}$$

As stated in Section B.1.3 of the VM0009 methodology, there are no specific requirements with regard to the sample size, but instead credit generation is discounted based on the magnitude of the sampling error (uncertainty deduction depending on the standard error found within monitoring measurements above). Thus, the sample size was not determined with any desired precision. However, if the precision of the initial sample size results in a confidence deduction, the PP may decide to add additional plots to the sample in order to reduce this deduction. The magnitude of the confidence deduction is completed using equation [F.57] of the VM0009 Methodology:

$$E_U^{[m]} = E_{B\,\Delta}^{[m]} \left[\frac{1.64}{E_{B\,\Delta}^{[m]} + A_{PAA} c_p^{[m]} + A_{px} c_B^{[m]}} \sqrt{\left(U_{EM}^{[m]}\right)^2 + \left(U_P^{[m]}\right)^2 + \left(U_B^{[m]}\right)^2} - 0.15 \right]$$

The results from equation F.57 of the methodology found that the project is not required to take an uncertainty deduction for this monitoring period and no additional sampling was completed.

In conclusion, AENOR team checked the implementation of quality control and the accuracy of the data collected in the field and also when the data was translated to the spreadsheets. The PD and MR described the QC/QA for data entry. Original data sheets were provided to the verification team of AENOR. A random sample of these were selected and traced through to the corresponding excel spreadsheets with no errors observed.

Finally, data management and archival system is also detailed in the MR. Roles and responsibilities along with data management and archival system are also detailed in the MR and other supported documents. AENOR verified the enforcement of the quality assurance and quality protocols and checked that all instruments used for the whole monitoring period were checked and in good conditions to be used.

Interviews with the PP and inspection of data and results demonstrated that the PP possess all of the competencies required for reporting of GHG emissions reductions on accurate way.

Data presented to the audit team were clear and coherent and processing steps could be traced to the corresponding sections of the methodology and monitoring plan with transparency.

The monitoring plan provides means for internal data review and quality control, and the data presented by the PP included the results of these internal assessments. AENOR reviewed the different procedures applied and considers that information provided is sufficiency and the quality of that information is appropriate to determine the GHG removals.

5 VALIDATION AND VERIFICATION CONCLUSION

AENOR performed the validation and the verification of the The NIHT Topaiyo REDD+ Project, and has verified that the project is in compliance with the Verified Carbon Standard version 4.0 without qualifications or limitations. The grouped project is located in Papua New Guinea and covers 10,443 hectares in the first instance (one PAI).

The validation and verification process was performed on the basis of all issues and criteria of VCS. The conclusions of this report show that the project, as it was described in the project documentation, is in line with all criteria applicable for the validation and verification.

The verification assessment covered the first monitoring period from 01-June-2017 to 31-December-2019 and verified that calculated emission reductions were achieved during the monitoring period with a reasonable level of assurance.

AENOR is able to issue a positive verification opinion for the 1,680,306 tonnes CO_2e as reported in the project description and monitoring report for the reporting period above. The overall non-permanence

risk rating was 21%. Therefore, the total number of credits to be deposited in the buffer account is 352,864 VCUs and the total VCUs to be issued are 1,327,442 VCUs.

Verification period: 01-June-2017 to 31-December-2019

Verified GHG emission reductions and removals in the above verification period:

Year	Baseline emissions or removals (tCO2e)	Project emissions or removals (tCO2e)	Leakage emissions (tCO2e)	Net GHG emission reductions or removals (tCO2e)	Buffer pool allocation	VCUs eligible for issuance
2017	426,685	0	0	426,685	-89,604	337,081
2018	803,415	0	0	803,415	-168,717	634,698
2019	450,206	0	0	450,206	-94,543	355,663
Total	**1,680,306**	**0**	**0**	**1,680,306**	**-352,864**	**1,327,442**

Net change in carbon stocks: 1,680,306 tCO_2e.

Overall non-permanence risk rating: 21%

VCUs buffer to be deposited: 352,864 tCO_2e.

Total VCUs to be issued: 1,327,442 tCO2e.

Date: 14 August 2020

Juan Carlos Gómez
Validation and Verification Leader

APPENDIX I: EVIDENCES

General documents
Project description: - NIHT VCS Project Description v1.53 - NIHT PD Summary_Pidgin Translation v1.3 Monitoring report: - NIHT-VCS-Monitoring-Report-v1.23
Project documents
Ownership: - Approval by New Ireland Provincial Government - Assignment of Contractual Rights to NI Holdings, Ltd. - Contract for Sale of Hardwood Timber - Corporate Resolution Assigning the Contract to NIHT 21.10.2018 - ILG Cert Complete - KamlaparContract Final - Kamlapar ILG-1 Map(1) - Restated Agreement 3.18.18 - Legal Opinion Letter
Start date: - Resolution 5.15.17 - Business Plan 7.17
Other: - NIHT Inc Global Anti Corruption Policy - Konoagil Logging Plan_v1.4 - Revised Viability Assessment Report 11-12-14 - DDA Board Endorsement for Topaiyo LA
Monitoring
SOP: - NIHT Field Measurement Protocol v1.10
Plot data: - Kamlapar PAI: #12, 33, 105, 171, 220, 20, 44, 111, 168, 203 - Proxy area: #4, 6, 12, 15, 28, 3, 8, 16, 26, 33
Carbon Accounting
Spreadsheets: - NIHT_Accounting Model_v1.19 - NIHT_KamlaparILG_Treelist_v1.18 - NIHT_PAI1_ProxyArea_Treelist_v1.4 - Full_RefRegion_ENB_Landsat_PointGridExportAsCSV_QAQCcomplete - CDM_final_v5.R
Oher: - Improved allometric models to estimate AGB of tropical trees_Chave_2014 - Wood Density v1.1

Non-permanence Risk Report
Non-permanence risk report: - NIHT Non-Permanence Risk Report v1.15
Supporting documents: - NIHT Management_v1.0 - NIHT_budget_and_cashflow_breakeven_v1.4 - TropicalCycloneEcology_Lin2020 - Greenbaumetal_landslides - hazard-geonode_png_w100_tr_cyclones
Spatial Data
Shape files: - DesignatedGeographicArea - InventoriedPlots_ProxyArea_ToriuHeadwaters_WGS84 - FullReferenceRegionENB_1150m_ALLmergedgrids - FullReferenceRegionENB_1150m_accchecked_mergedgrids - Kamlapar_PAI_Stratified_v3 - PAI_Kamlapar_v5_AllPlotsMerged - PAI_PlotAllocationAreas_CombinedSamplingFrame - PilotReferenceRegionENB_1850m_mergedgrids - ProjectActivityInstance01_Kamlapar_v3 - ProjectActivityInstance01_Kamlapar_v3_Stratified_SamplingFrames_v3 - ProxyArea_v1 - ProxyArea_InventoriedPlots__ToriuHeadwaters_WGS84 - ProxyArea_Plots_ToriuHeadwaters_35pts_WGS84 - ProxyArea_ToriuHeadwaters_North_Stratified - RefArea_ENB_Forest_NonForest_2008_20200317
TIF files: - ASTGTM3_Aspect_degrees_reprojected - ASTGTM3_DEM_meters_reprojected - ASTGTM3_Slope_degrees_reprojected
Other: - Konoagil Kamlapar ILG extension map - Landcover Classification SOP v1.2 - Full Point Interpretation Exercise - Satellite Image Metadata
Stakeholder consultation
- CCDA_meetingEvidence - NIHT_Topaiyo_Meetings_v1.1 - Clan - Meetings NI Holdings_notes

APPENDIX II: VALIDATION FINDINGS

Corrective Actions Requests (CARs)

CAR ID	**01**	**Date:** 22/05/2020
Description of CAR		
Regarding carbon calculations: 1. Figures from section 1.10 of the PD do not match with values on NIHT_Accounting Model_v1.13.xlsm. 2. Figures of AGMT and AGOT under PDR.39 do not match with values on NIHT_ProxyArea_Treelist_v1.2.xlsx 3. Figures of $C_{AGMT}^{[m=0]}$ and $C_{BGMT}^{[m=0]}$ under PDR.77 do not match with values on NIHT_Accounting Model_v1.13.xlsm. 4. According to VM0009 section 8.1.1.5, the equation for the calculation of $E_{B\ BM}^{[m]}$of F-P1.b project types should be [F.24]. 5. The equations used in NIHT_Accounting Model_v1.13.xlsm for the calculation of $BEM_{P_1}$and $HA_{P_1}(c_P, c_B)$ are missing the parameter *T*. 6. The value of l_{ty} used in NIHT_Accounting Model_v1.13.xlsm is a constant that do not correspond to the value of each type of wood product of Table 9 in VM0009. 7. Figures on Table 12 of the PD do not match with Table 1 nor with values on NIHT_Accounting Model_v1.13.xlsm.		
Project participant response		**Date:** 22/06/2020
1. The estimated GHG emissions reductions in Table 1 were updated based on the updates made to the accounting model. *2. The figures of AGMT and AGOT under PDR.39 were updated to match the values in the NIHT_ProxyArea_Treelist_v1.3.xlsm.* *3. The figures of C_AGMT^([m=0]) and C_BGMT^([m=0]) under PDR.77 were updated to reflect the values in the accounting model.* *4. The VM0009 Methodology is not clear on whether the spatial model should be used for F-P1.b projects, so the project team has used the precedent from previous projects validated and verified under the methodology of not using it for this project. While it is accurate that section 8.1.1.5 discusses using the spatial algorithm for F-P1.b projects, Section A.3 only applies it to project type U3. Additionally, equation F.19 is for both F-P1.A and F.P1.b projects and also makes no mention of the spatial algorithm. Due to this lack of clarity, the project team used the precedent set by the Mai Ndombe project and modelled baseline emissions with the same model using equations F.2 and F.19 of the methodology.* *5. It is correct that 'T' is not being used in these equations, but this is because T is not a parameter in this*		

equation, but instead signifies transpose in matrix notation. Matrix notation is not relevant to this project, as no covariate values are being used. Thus it is appropriate for T to not be included in equations. *6. The audit team is correct in that the incorrect value of 0.8 was being used as the value for l_ty for all wood products. The accounting model has been corrected by adding wood product specific values to the 'Parameter' tab of the model which are now used for the calculations of long-lived wood products in later worksheets. The appropriate l_ty value of 0.7 is now being applied for industrial roundwood.* *7. The Figures in Table 12 of the PD were updated to reflect the values in the updated accounting model.*	
Documentation provided by project participant	
NIHT_Accounting Model_v1.18.xlsm, NIHT_PAI1_ProxyArea_Treelist_v1.3.xlsm, NIHT VCS Project Description	
DOE assessment	**Date:** 08/07/2020
The PP has provided the adequate explanations and made the appropriate corrections. **CAR closed.**	

CAR ID	**02**	**Date:** 22/05/2020
Description of CAR		
Sections 5.1 and 5.2 do not follow the *VCS Project Description Template*.		
Project participant response		**Date:** 22/06/2020
Data and parameters tables have been added to the Project Description.		
Documentation provided by project participant		
NIHT VCS Project Description		
DOE assessment		**Date:** 08/07/2020
The PP has made the adequate corrections. **CAR closed.**		

Clarification Requests (CLs)

CL ID	01	Date: 22/05/2020
Description of CL		
Provide the following evidences/documents/sources: 1. Revised Viability Assessment Report 11 12 14.pdf 2. A digital (GIS-based) map of the project accounting areas, including aerial or satellite imagery showing that they are forested as of the project start date and 10 years prior to the project start date (PDR.22). 3. As per VM0009 6.3.1, evidence that infrastructure that leads to deforestation would have existed in the baseline; or alternatively, demonstrate that it is in fact common practice for comparable commercial logging outfits to build roads and other access infrastructure in order to legally degrade under a logging concession and that the primary agent has sufficient access to the project area to build infrastructure in the forest project accounting area. 4. For PDR.36, evidence of similar vegetation, climatic conditions, applicable infrastructure, and ownership/tenure boundaries that influence conversion; and for all the requested criteria, a brief documented analysis illustrating similarities. 5. For PDR. 44, evidence that the reference area meets the following requirements (VM0009 6.8.1.1): a. Socio-economic conditions b. Cultural conditions c. Locations of settlements or other population centers d. Mobilities of the agents of conversion e. Landscape configuration 6. Landcover Classification SOP 7. Source/justification of t_{SA} (PDR. 69) 8. Source/justification of annual harvest area under PDR.77.		
Project participant response		**Date:** 22/06/2020
1. The document "Revised Viability Assessment Report 11 12 14.pdf" was located and included in the documentation sent to auditors. *2. Available satellite imagery (Landsat) was used to generate a map of the accounting area at project start and 10 years prior. This map has been included under PDR. 22.* *3. Evidence has been provided under PDR.29 that concretizes the practice of road building as common in harvesting projects across all terrain types in PNG.* *4. PDR.36 was updated to include comparison maps for climatic conditions and boudaries. Maps including LULC, roads and waterways to fulfill the evidence of similar vegetation and applicable infrastructure. Based on the description of PDR.36 in the VM0009 methodology, maps are requested, however the documented analysis illustrating the similarities is captured under PDR.37.* *5. PDR. 44 was updated to include additional information about socio-economic and cultural conditions in*		

the Reference Area, as well as information on surrounding population centers, access and landscape configuration maps. *6. The document Landcover Classification SOP has been provided to auditors.* *7. Additional information was included under PDR.69 to further clarify how the 730 day figure for tSA was determined.* *8. Additional information was included under PDR.77 to clarify the arrival at the annual harvest area.*	
Documentation provided by project participant	
Revised Viability Assessment Report 11 12 14.pdf, Landcover Classification SOP, NIHT VCS Project Description	
DOE assessment	**Date:** 08/07/2020
1, 2, 3. Closed. 4. **Not closed.** Provide "for all the requested criteria, a brief documented analysis illustrating similarities" under PDR.36 or PDR.37. Regardless the maps, no figures or analysis (under for example Figs. 5, 6, 8 u 11) that make possible comparison somehow. **5, 6. Closed.** **7. Not closed.** No solid justification on the 2 years rate is provided, and there is no other external evidence provided that endorses it (such as the forest management plan, for example). **8. Not closed.** No solid justification in the annual harvest area, and there is no other external evidence provided that endorses it (such as the forest management plan, for example).	
Project participant response	**Date:** 28/07/20
4. For figures 5 through 12, a brief description of the comparison analysis and results was included under each figure. Additionally, while these maps and explanations are included to provide further justification of the similaries between the initial PAI, the proxy area, and the reference area as required by the methodology, please note that the Eligibility Criteria have been designed as to provide a quantitative checklist that PAIs will need to fulfill in order to be eligible to join the project. 7. Additional justification for Tsa has been added to the PD, as well as clarification on how it was derived for the initial PAI and how it will be derived for future PAIs. A map (Figure 22) has been added to this section demonstrating that mosaic deforestation increases following the arrival of primary agents, suggesting that secondary agents do not wait for a primary agent to abandon an area before implementing activities that result in deforestation. This justifies using a PAIs harvest length as a conservative estimate for Tsa. As harvest length is closely tied to annual harvest area, additional explanation can be found in the response to Finding CL 03.8 below. 8. Additional justification for the annual harvest area has been added under PDR.77. While the audit team is	

correct that the Konoagil Logging Plan justifies the use of a higher annual harvest area through its demonstration of the AAC for PAIs within Konoagil, the project proponent believes that a lower area is justifiably conservative, especially within an initial PAI with high timber stocks. The Konoagil Logging Plan was developed to justify the AAC for the Konoagil region; it was not developed to provide fully detailed logging plans for the region as the project proponent transitioned efforts into developing the carbon project. A 2 year harvest period within the boundaries of the initial PAI would be likely, as the inventory found that the area was well-stocked and it would provide the primary agent time to ramp up logging operations if desired, as long as they remain under the AAC. Since the harvestable area of the initial PAI is 7,784.1 hectares, a 2 year harvest period would result in an annual harvest area of 3,892.1 hectares.	
DOE assessment	**Date:** 13/08/2020
The PP has provided the requested clarifications and has made the adequate corrections. **CL closed.**	

CL ID	**02**	**Date:** 22/05/2020
Description of CL		
In section 1.3 of the PD, provide justification of the project eligibility under the appropriate category of VCS Standard v4.0 Appendix 1.		
Project participant response		**Date:** 22/06/2020
A clarifying sentence has been added to this section discussing the project being eligible under the VCS program as a REDD project. As the project proponent understands Appendix 1 of the VCS Standard v4.0, the statements in that section discussing the applicability of the methodology further fulfill the requirements of the VCS Standard. Specifically, points 1 and 2 discuss the project as an APDD project and the project area being limited to only areas forested for 10 years prior to the project start.		
Documentation provided by project participant		
NIHT VCS Project Description		
DOE assessment		**Date:** 08/07/2020
The PP has provided the requested information. **CL closed.**		

CL ID	**03**	**Date:** 22/05/2020
Description of CL		
The PP has provided as project ownership evidence a *Contract for sale of standing timber*, signed on December 12th, 2015 between the Topaiyo Landowners (which encompass the Kamlapar PAI) and Topaiyo Holdings Limited. Additionally, a Carbon Credit Contract signed on October 21st, 2018 between Kamlapar Land Group ILG and NI Holdings, Ltd (a PNG subsidiary of NIHT) has been provided as evidence. Furthermore, the legal opinion of the Proof of Right and Ownership from a law firm was provided by the PP. However, there seems to be a missing link on how the rights over the standing timber belonging to Topaiyo Holdings Limited from the *Contract for sale of standing timber* have been transferred to NI Holdings, Ltd. Provide explanation/evidence on how these rights have been transferred.		
Project participant response		**Date:** 22/06/2020
The transfer of these rights can be found in the document 'Kamlapar Contract Final'. Specifically, the second paragraph of that document states: "This project relates to, and contains the surviving terms and obligations from, the Contract for Standing Timber dated 12 September 2015 and all amendments as assigned by Top Development Joint Venture to NI Holdings, effective 21 October 2018." The general steps for the final transfer of project ownership to NIHT can be understood as follows: *1. An agreement was made between THL and the ILGs. THL was part of a joint venture with NIHT/NI Holdings known as Top Development Joint Venture. (Contract for Sale of Hardwood Timber).* *2. NIHT/NI Holdings decides to sever ties with THL, and Top Development Joint Venture has a board meeting to vote on assigning the contract rights and responsibilities to NIHT. The board is made up of 5 members representing the clans and 5 members representing NIHT and THL. The board unanimously voted in favor of this resolution.* *3. NIHT has come to agreement with all the clans that were part of the original timber agreement. For Kamlapar, this agreement can be found in the document 'Kamlapar Contract Final', as explained above. This agreement incorporates all the terms of the standing timber contract.* *Additional evidence can be found in the Legal Opinion mentioned by the audit team in the finding, as well as the additional document 'Approval by New Ireland Provincial Government'. The documents 'Restated Agreement 3.18.18', 'Assignment of Contractual Rights to NI Holdings, Ltd.', and 'Corporate Resolution Assigning the Contract to NIHT 21.10.2018' also provide additional information on the Top Development Joint Venture between THL and NIHT, and the dissolving of that Joint Venture.*		

Documentation provided by project participant	
Kamlapar Contract Final, Contract for Sale of Hardwood Timber, NIHT VCS Project Description, *Approval by New Ireland Provincial Government, 'Restated Agreement 3.18.18', 'Assignment of Contractual Rights to NI Holdings, Ltd.', 'Corporate Resolution Assigning the Contract to NIHT 21.10.2018'*	
DOE assessment	**Date:** 08/07/2020
Not closed. 1. Complete section 1.7 with all the references to the documents mentioned above. Further than this, request regarding ownership is now clear. 2. Project start date is an essential parameter. Although this date is set in the Business Plan 7.17, this document is a weak evidence due to its content (internal document, not signed, not referenced in any later contract or agreement, multiple statements that do not correspond to the current project, etc.). Please provide additional evidence (mails, minutes of internal meetings, any record, etc.) on the date the Bussiness Plan was set, in order to properly justify that 1 June, 2017 was the date the decision of not moving forward with commercial logging was taken.	
Project participant response	**Date:** 28/07/20
1. *Section 1.7 was updated to reference the "Kamlapar Contract Final" and "Contract for Sale of Hardwood Timber". This documents were provided to the auditor in the previous round of findings.* 2. *To further justify the Project start date of June 1, 2017, the project proponent identified a Corporate Resolution from May 15, 2017 which describes the outcome of a meeting held by NIHT shareholders and directors in which the parties involved decide to pursue a carbon project instead of a timber project. Though this is prior to the June 1, 2017 start date, maintaining this later start date is conservative.*	
DOE assessment	**Date:** 13/08/2020
The PP has provided the requested information. **CL closed.**	

CL ID	04	Date: 22/05/2020
Description of CL		
In section 1.11 of the PD, provide more information on how the various organizations, communities and other entities are involved in each project activity; and describe far as it is planned the activities already set with the clan.		
Project participant response		**Date:** 22/06/2020
Section 1.11 was updated to include the different entities that will be supporting each of the activities as well as how they have been involved in these activities so far.		
Documentation provided by project participant		
NIHT VCS Project Description		
DOE assessment		**Date:** 08/07/2020
Not closed. During the interviews, the chance of implementing sustainable logging and small scale mining was commented several times. This activities have been removed from current versions of PD and MR in almost all the applicable sections (please, review consistency); then please provide clarification in this removal if finally are not project activities. Not required to document this justification in the PD or MR (if activities are out), but in this findings document. In case the activities are included, please also review 2.3 section of PD and all the applicable ones.		
Project participant response		**Date:** 28/07/20
The audit team is correct in that the project proponent removed all mentions of artisanal logging in the PD and MR, and has reviewed these documents to remove any remaining mention of them. The project proponent received feedback from Verra on an early draft of the PD requesting that if artisanal logging is to be included as a project activity, a thorough management plan would be required. As no clans have yet requested that logging be implemented as a project activity, no such management plans have been developed. If a clan decides they wish to pursue logging as an activity, management plans will be developed and explained in the monitoring report for the monitoring period these activities are implemented.		
DOE assessment		**Date:** 13/08/2020

The PP has provided the requested information and made the adequate corrections. **CL closed.**

CL ID	**05**	**Date:** 22/05/2020
Description of CL		
In section 1.14 of the PD, provide more information regarding the specific local, regional and national laws, statutes and regulatory frameworks that are relevant to the project and its compliance with them.		
Project participant response		**Date:** 22/06/2020
More information has been provided within the PD regarding relevant laws, specifically with regards to land tenure, forest ownership, and carbon rights.		
Documentation provided by project participant		
NIHT VCS Project Description		
DOE assessment		**Date:** 08/07/2020
The PP has provided the requested information. **CL closed.**		

CL ID	**06**	**Date:** 22/05/2020
Description of CL		
In section 2.1 of the PD, provide more information regarding the socio-economic impacts of the project, such as loss of income from industrial logging operations for the clans, changes in traditional livelihoods, social dynamics, etc. and the mitigation measures to reduce them.		
Project participant response		**Date:** 22/06/2020
Section 2.1 of the PD was updated to include additional clarifications for the socio-economic impacts of the project.		
Documentation provided by project participant		
NIHT VCS Project Description		
DOE assessment		**Date:** 08/07/2020
The PP has provided the requested information. **CL closed.**		

CL	07	Date: 22/05/2020
Description of CL		
In section 2.2 of the PD, provide more information, as required by the PD template, regarding: 1. Procedures or methods used for engaging local stakeholders (e.g., dates of announcements or meetings, periods during which input was sought). 2. Procedures or methods used for documenting the outcomes of the local stakeholder consultation. 3. Mechanism for on-going communication with local stakeholders. 4. How due account of all and any input received during the consultation has been taken. Include details on any updates to the project design or justify why updates are not appropriate. 5. How the project has or will communicate the following: o The project design and implementation, including the results of monitoring. o The risks, costs and benefits the project may bring to local stakeholders. o All relevant laws and regulations covering workers' rights in the host country. o The process of VCS Program validation and verification and the validation/verification body's site visit. 6. The project design and implementation, including the results of monitoring. 7. The risks, costs and benefits the project may bring to local stakeholders. 8. All relevant laws and regulations covering workers' rights in the host country. 9. The process of VCS Program validation and verification and the validation/verification body's site visit.		
Project participant response		**Date:** 22/06/2020
1. The procedures and methods used for engaging local stakeholders were clarified in section 2.2 as suggested. In addition, a list of documented meetings has been included as supporting documentation (NIHT_Topaiyo_Meetings_v1.1.xlsm). *2. Section 2.2, Local Stakeholder Consultation, was updated to include information regarding how meetings with stakeholders are documented. Meeting discussions and outcomes are recorded by a designated note taker.* *3. Section 2.2, Local Stakeholder Consultation, was updated to include information regarding the mechanisms for ongoing communication with local stakeholders. While the COVID-19 pandemic is limiting travel, the project proponent has set up a communication plan that includes conference calls with the local team 3 times a week and ongoing email exchanges regarding project details and progress. The long-term mechanism for disseminating important project information and updates to the clans begins by the project proponent contacting clan leadership and committees which then share the information with the clan members. In addition to these pathways of communication, the Project documentation has and will continue to be translated to the local language Tok Pisin and made available to local stakeholders.* *4. Section 2.2, Local Stakeholder Consultation, was updated to address how input from local*		

stakeholders has been integrated into the project design and will continue to be incorporated as the project progresses. *5. Section 2.2, Local Stakeholder Consultation, was updated to include the following:* *- Project design, implementation, and monitoring information will be communicated to the clans through meetings with leadership committee chairs, and events open to the public. In addition, project documentation has been and will continue be translated to the local language, Tok Pisin, and provided to local stakeholders.* *- Risks, costs and benefits that the project may bring to local stakeholders have been identified and communication to the local stakeholders occured through the same pathways as described above.* *- Protections to stakeholders through workers' rights implemented by the project proponent have been described and these rights will be clearly communicated to all hires.* *- Communication strategies for sharing information with stakeholders about the VCS verification and validation is carried out through the same pathways as described in the stakeholder communication strategy described earlier in section 2.2.* *6. Section 2.2 was updated to include additional information about the project design and implementation so far.* *7. Section 2.2 of the PD has been updated to include more details regarding the risks, costs, and benefits the project may bring to local stakeholders.* *8. All relevant laws and regulations covering workers' rights in Papua New Guinea have been included in section 2.2 of the PD.* *9. Section 2.2 of the PD has been updated to include information about how the proces of VCS program validation and verification and the VB's site visit has been and will continue to be communicated with the local stakeholders.*	
Documentation provided by project participant	
NIHT_Topaiyo_Meetings_v1.1.xlsm, NIHT VCS Project Description	
DOE assessment	**Date:** 08/07/2020
The PP has provided the requested information. **CL closed.**	

CL ID	**08**	**Date:** 22/05/2020
Description of CL		
In section 2.4 of the PD, according to the template, demonstrate how due account of all and any comments received during the public comment period has been taken. Include details on any updates to the project design or demonstrate the insignificance or irrelevance of comments.		
Project participant response		**Date:** 22/06/2020
Section 2.4 was updated to include updated information regarding public comments from local stakeholders and further clarify clan influence in the project design.		
Documentation provided by project participant		
NIHT VCS Project Description		
DOE assessment		**Date:** 08/07/2020
The PP has provided the requested information. **CL closed.**		

CL ID	**09**	**Date:** 22/05/2020
Description of CL		
In section 2.5 of the PD, provide more information regarding the processes to ensure ongoing communication and consultation with local stakeholders, including a grievance redress procedure to resolve any conflicts which may arise between the project proponent and local stakeholders.		
Project participant response		**Date:** 22/06/2020
Section 2.5, AFOLU-Specific Safegaurds has been updated to include the process to ensure ongoing communication and consultation with local stakeholders. In addition, the guidance provided to the clans to create standard operating procedures for the grievance process was included.		
Documentation provided by project participant		
NIHT VCS Project Description		
DOE assessment		**Date:** 08/07/2020
The PP has provided the requested information. **CL closed.**		

CL ID	**10**	**Date:** 22/05/2020
Description of CL		
In section 4.1 of the PD, provide more information regarding the procedure used for the determination of the parameters α and β.		
Project participant response		**Date:** 22/06/2020
The project team has provided more detail on these procedures, which are supplemented by information provided in the Landcover Classification SOP.		
Documentation provided by project participant		
Landcover Classification SOP		
DOE assessment		**Date:** 08/07/2020
The PP has provided the requested information. **CL closed.**		

CL ID	**11**	**Date:** 22/05/2020
Description of CL		
In section 5.3 of the PD, provide more information regarding (as required by the template): 1. Methods for measuring, recording, storing, aggregating, collating and reporting data and parameters. Where relevant, include the procedures for calibrating monitoring equipment. 2. The procedures for internal auditing and QA/QC. 3. The procedures for handling non-conformances with the validated monitoring plan. 4. Any sampling approaches used, including target precision levels, sample sizes, sample site locations, stratification, frequency of measurement and QA/QC procedures.		
Project participant response		**Date:** 22/06/2020
1. Additional information has been added to this section explaining these procedures. More detail is also included in the NIHT Field Measurement Protocol. *2. Additional information has been added to this section explaining these procedures. More detail is also included in the NIHT Field Measurement Protocol.* *3. Additional information has been added to this section explaining these procedures. More detail is also included in the NIHT Field Measurement Protocol.* *4. Additional information has been added to this section explaining these procedures. More detail is also included in the NIHT Field Measurement Protocol.*		
Documentation provided by project participant		
NIHT VCS Project Description		
DOE assessment		**Date:** 08/07/2020
The PP has provided the requested information. **CL closed.**		

CL ID	**12**	**Date:** 22/05/2020
Description of CL		
Regarding the PAI, provide: - Constitution of the clan as ILG. - Registration of Customary Land and map.		
Project participant response		**Date:** 22/06/2020
1. The evidence of the constitution of the Kamlapar ILG has been provided (ILG Cert Complete.pdf) *2. The evidence of the registration of customary land and map have been shared in the supporting documents as Konoagil Kamlapar ILG extension map.*		
Documentation provided by project participant		
ILG Cert Complete.pdf, Konoagil Kamlapar ILG extension map		
DOE assessment		**Date:** 08/07/2020
The PP has provided the requested evidence. **CL closed.**		

CL ID	13	Date: 22/05/2020
Description of CL		
Regarding the PAI and proxy area inventory, provide evidences (photos and fulfilled field templates) for a sample of plots: - PAI: #12, 33, 105, 171, 220. - Proxy area: #4, 6, 12, 15, 28.		
Project participant response		**Date:** 22/06/2020
1. Photos for these 5 plots have been provided to the audit team. Plot 171 was unable to be accessed and had been dropped from the treelist, even though the plot data is still visible in the 'Plot Data' worksheet. Evidence of this plot being dropped and not included in carbon calculations can be found by it not being included in the 'Treelist' worksheet, so it is not even included as a zero tree plot. *2. Photos for these 5 plots have been provided to the audit team. Plot 6 was unable to be accessed but had been incorrectly included within the Proxy Area Treelist. After identifying this issue, Plot 31 was identified as also being inaccessible and was also incorrectly included in the treelist. The Proxy Area Treelist has been updated to v1.3 with these two plots conservatively excluded and the relevant values have been updated within the NIHT Accounting Model.*		
Documentation provided by project participant		
Photos found in Sub-folder 'CL13 Plot Information', NIHT_PAI1_ProxyArea_Treelist_v1.3, NIHT_KamlaparILG_Treelist_v1.14		
DOE assessment		**Date:** 08/07/2020
Not closed. - Plot template #33 in PAI is empty although NIHT_KamlaparILG_Treelist_v1.14 reports trees on it, please provide explanation. - Due to the inconsistency found in non-inventoried plots, please provide the same evidences (template and pictures) of the following plots: PAI (#20, 44, 111, 168, 203) and Proxy area (#3, 8, 16, 26, 33).		
Project participant response		**Date:** 28/0720

1. The audit team is correct that no trees were recorded for plot 33 yet there were tree records for this plot in the treelist. This was due to the trees recorded on plot 114 being mistakenly duplicated on plot 33 during data transcription. The NIHT Field Measurement Protocol v1.10 has been updated with all QAQC procedures and the following procedure has been added to identify this issue in future monitoring periods:

• Check for duplicate trees

o In excel, use conditional formatting to highlight trees of the same height

o Filter trees by the highlighted color and sort from smallest to largest

o Check that there are no trees with the same DBH, species, and height. If there are, plot sheets should be checked to see if this was correctly input or if a tree and/or plot was duplicated during data entry.

The addition of this QAQC procedure identified the following issues with the treelist and updates have been made to correct these transcription errors:

Plot 97: One tree (Tree # 254/255) appears to have been mistakenly added to the plot sheet twice, as it has the exact same height, DBH, and species ID. The duplicate has been removed.

Plot 178: All trees on the plot were duplicated within the treelist (on plot 178). Duplicate trees have been removed from the treelist and all inputs have been confirmed to be accurately transcribed.

All inputs into the accounting model have been updated based on these changes made to the treelist.

2. The available plot sheets and photos have been provided to the audit team for the selected plots. Plots 168 and 203 have no photos available due to technical issues experienced by foresters on these plots.

DOE assessment	**Date:** 13/08/2020
The PP has provided the request information and made the adequate corrections. **CL closed.**	

APPENDIX III: VERIFICATION FINDINGS

Corrective Actions Requests (CARs)

CAR ID	01	Date: 22/05/2020
Description of CAR		
Regarding carbon calculations: 8. Under MR.100 it is stated that the CF value used is 0.47. However, the value used in NIHT_KamlaparILG_Treelist_v1.12.xlsx and NIHT_ProxyArea_Treelist_v1.2.xlsx is 0.5. 9. According to VM0009 section 8.1.1.5, the equation for the calculation of $E_{B\,BM}^{[m]}$ of F-P1.b project types should be [F.24]. 10. The equations used in NIHT_Accounting Model_v1.16.xlsm for the calculation of BEM_{P_1} and $HA_{P_1}(c_P, c_B)$ are missing the parameter *T*. 11. The value of l_{ty} used in NIHT_Accounting Model_v1.16.xlsm is a constant that do not correspond to the value of each type of wood product of Table 9 in VM0009. 12. Figure of Total Emissions in First Monitoring Period from Biomass Emissions Model in reported Table 3 do not match with value in NIHT_Accounting Model_v1.16.xlsm.		
Project participant response		**Date:** 22/06/2020
1. The CF value has been updated to the IPCC default value of 0.47 in both the Kamlapar and Proxy Area treelists. *2. The VM0009 Methodology is not clear on whether the spatial model should be used for F-P1.b projects, so the project team has used the precedent from previous projects validated and verified under the methodology of not using it for this project. While it is accurate that section 8.1.1.5 discusses using the spatial algorithm for F-P1.b projects, Section A.3 only applies it to project type U3. Additionally, equation F.19 is for both F-P1.A and F.P1.b projects and also makes no mention of the spatial algorithm. Due to this lack of clarity, the project team used the precedent set by the Mai Ndombe project and modelled baseline emissions with the same model using equations F.2 and F.19 of the methodology.* *3. It is correct that 'T' is not being used in these equations, but this is because T is not a parameter in this equation, but instead signifies transpose in matrix notation. Matrix notation is not relevant to this project, as no covariate values are being used. Thus it is appropriate for T to not be included in equations.* *4. The audit team is correct in that the incorrect value of 0.8 was being used as the value for l_ty for all wood products. The accounting model has been corrected by adding wood product specific values to the 'Parameter' tab of the model which are now used for the calculations of long-lived wood products in later worksheets. The appropriate l_ty value of 0.7 is now being applied for industrial roundwood.* *5. Table 3 under MR. 12 was confirmed to not match the updated accounting mode. The table has been updated to reflect the figures calculated in the updated accounting model, "NIHT_Accounting*		

Model_v1.16.xlsm".	
Documentation provided by project participant	
NIHT_PAI1_ProxyArea_Treelist_v1.3.xlsm, NIHT_KamlaparILG_Treelist_v1.14.xlsm, NIHT-VCS-Monitoring-Report	
DOE assessment	**Date:** 08/07/2020
1. Not closed. CF in NIHT_KamlaparILG_Treelist_v1.14 still remains as 0.5. As carbon calculations results will be modified, please ensure that the new figures along all the documents (PD, MR, summaries, NPR Report, etc.) are consistent. **2, 3, 4. Closed.** **5. Not Closed.** Biomass Emissions Model figure is not correct in MR nor in NIHT_Accounting Model_v1.18 (since it reflects the figure for 31/12/2018 instead of 31/12/2019).	
Project participant response	**Date:** 28/07/20
1. NIHT_KamlaparILG_Treelist_v1.18 has been updated with the appropriate CF value of 0.47. Other changes have been made to the treelist based on the QAQC checks added to the treelist as discussed in the response to the PD finding on plots (see response to PD Finding CL 13). All figures, tables, and relevant values have been updated as a result of these changes. *5.* The audit team is correct and this error has been fixed in both the monitoring report and in v1.19 of the accounting model.	
DOE assessment	**Date:** 13/08/2020
The PP has made the adequate corrections. **CAR closed.**	

CAR ID	**02**	**Date:** 22/05/2020
Description of CAR		
Sections 4.1 and 4.2 of the MR do not follow the *VCS Monitoring Template*.		
Project participant response		**Date:** 22/06/2020
Sections 4.1 and 4.2 have been updated to include the data and parameter tables using the VCS MR template.		
Documentation provided by project participant		
NIHT-VCS-Monitoring-Report		
DOE assessment		**Date:** 08/07/2020
Not closed. Although the sections now follow the template, some of the values are not updated to the current values.		
Project participant response		**Date:** 28/07/20
Values of parameters have been updated using the latest information for the monitoring report, especially with regards to NIHT_AccountingModel_v1.19 as well as NIHT_KamlaparILG_Treelist_v1.18. These tables were also updated in the PD.		
DOE assessment		**Date:** 13/08/2020
The PP has made the adequate corrections. **CAR closed.**		

Clarification Requests (CLs)

CL ID	**01**	**Date: 22**/05/2020
Description of CL		
Provide the following evidences/documents/sources: 9. Evidence of the meetings carried out with clan members and communities stated in section 3.1 of the MR. 10. Evidence of the meeting with the Climate Change and Development Authority and its result. 11. Evidence of the 3-day training held to train field crews reported on section 4.3.		
Project participant response		**Date:** 22/06/2020
1. Section 3.1 of the Monitoring Report has been updated to include a reference to the documents providing evidence of the meetings carried out with clan members and communities as stated. *2. Section 3.1 was updated to include reference to supporting evidence for the meetings with the CCDA ("CCDA_meetingsEvidence.pdf").* *3. Photographic evidence of the 3-day field training was included in section 4.3 under MR.88.*		
Documentation provided by project participant		
NIHT-VCS-Monitoring-Report, CCDA_meetingsEvidence.pdf		
DOE assessment		**Date:** 08/07/2020
The PP has provided the adequate explanations and made the appropriate corrections. As a suggestion, for further verifications, please consider to get stronger evidences of the meetings (e.g. pictures, attendees lists, agreements or conclusion minutes, etc.). **CL closed.**		

CL ID	**02**	**Date:** 22/05/2020
Description of CL		
In section 2.2 of the MR, provide more information, as required by the MR template, regarding: 1. The procedures or methods used for documenting the outcomes of the local stakeholder communication. 2. How the project has communicated the following with local stakeholders: a. The results of project implementation, including the results of monitoring. b. Any changes, where relevant, to risks, costs and benefits the project may bring to local stakeholders. c. Any changes, where relevant, to relevant laws and regulations covering workers' right in the host country. d. The process of VCS Program verification and the validation/verification body's site visit.		
Project participant response		**Date:** 22/06/2020
1. Additional information about the methods used to document the outcomes of local stakeholder communication during this monitoring period were included in section 2.2. *2. Section 2.2 was updated to include relevant information about how the project proponent has communicated with local stakeholders regarding project implementation and monitoring results, risks, costs, and benefits of the project, changes to relevant laws and regulations covering workers' rights, and the process of validation and verification - including the site visit.*		
Documentation provided by project participant		
NIHT-VCS-Monitoring-Report		
DOE assessment		**Date:** 08/07/2020
The PP has provided the requested information. **CL closed.**		

CL ID	**03**	**Date:** 22/05/2020
Description of CL		
In section 2.3 of the MR, provide more information, as required by the MR template, regarding he processes used to communicate and consult with local stakeholders during the monitoring period, including any information about any conflicts that arose between the project proponent and local stakeholders and whether any such conflicts were resolved via the established grievance redress procedure.		
Project participant response		**Date:** 22/06/2020
Section 2.3 of the MR was updated to provide additional information regarding processes used to communicate and consult local stakeholders during the monitoring, specific concerns that were raised, and how they were incorporated in to the project design.		
Documentation provided by project participant		
NIHT-VCS-Monitoring-Report		
DOE assessment		**Date:** 08/07/2020
The PP has provided the requested information. **CL closed.**		

CL ID	04	Date: 22/05/2020
Description of CL		
In section 2.3 of the MR, provide more information, as required by the MR template, regarding: 1. The organizational structure, responsibilities and competencies of the personnel that carried out the monitoring activities. 2. The methods used for generating/measuring, recording, storing, aggregating, collating and reporting the data on monitored parameters. 3. The procedures used for handling any internal auditing performed and any non-conformities identified. 4. The implementation of sampling approaches, including target precision levels, sample sizes, sample site locations, stratification, frequency of measurement and QA/QC procedures. Where applicable, demonstrate whether the required confidence level or precision has been met.		
Project participant response		**Date:** 22/06/2020
More information for all these findings have been added to section 4.3 of the MR, not section 2.3, as this information is more appropriate in this section. *1. Additional information has been added to this section explaining these procedures. More detail is also included in the NIHT Field Measurement Protocol.* *2. Additional information has been added to this section explaining these procedures. More detail is also included in the NIHT Field Measurement Protocol.* *3. Additional information has been added to this section explaining these procedures. More detail is also included in the NIHT Field Measurement Protocol.* *4. Additional information has been added to this section explaining these procedures. More detail is also included in the NIHT Field Measurement Protocol.*		
Documentation provided by project participant		
NIHT-VCS-Monitoring-Report		
DOE assessment		**Date:** 08/07/2020
Not closed. During the interviews, the chance of implementing sustainable logging and small scale mining was commented several times. This activities have been removed from current versions of PD and MR in almost all the applicable sections (please, review consistency, since it already appears in Table 1 of the Monitoring Plan); then please provide clarification in this removal if finally are not project activities. Not required to document this justification in the PD or MR (if activities are out), but in this findings document. In case the		

activities are included, please also review applicable sections.	
Project participant response	**Date:** 28/07/20
All mentions of artisanal logging have been removed from the PD and MR following a conversation with Verra. Please see the response to PD Finding CL 04 for explanation as to why these have been removed.	
DOE assessment	**Date:** 13/08/2020
The PP has provided the requested information and made the adequate corrections. **CL closed.**	

CL ID	05	Date: 22/05/2020
Description of CL		
Provide the following evidence/justification related to the Non-permanence Risk Report: 1. Management team includes individuals with significant experience in fields related to the project. 2. Adaptative management plans in place. 3. Budget and Cash Flow Breakeven Spreadsheet. 4. Legal agreement or requirement to continue the management referred in point b) of Project longevity table.		
Project participant response		**Date:** 22/06/2020
1. Evidence for the NIHT and NI Holdings, Ltd. management team's experience was provided as a document titled "NIHT Management_v1.0". *2. Additional evidence was added to the Project Management section of the NPR that details how the project has implemented adaptive management in the project design.* *3. The Budget and Cashflow Breakeven spreadsheet, titled "NIHT_budget_and_cashflow_breakeven_v1.4.xlsm" was provided in the supporting documentation folder.* *4. Additional evidence was added to the project longevity section of the NPR to concretize the 30 year project agreement.*		
Documentation provided by project participant		
NIHT Management_v1.0, NIHT_budget_and_cashflow_breakeven_v1.4.xlsm, NIHT Non-Permanence Risk Report v1.14.pdf		
DOE assessment		**Date:** 08/07/2020
1. Not closed. This evidence is not provided in the documents sent. **2. Not closed.** According to Non Permanence Risk Tool, “5) Adaptive management plans are those that identify, assess and create a mitigation plan for potential risks to the project, including those identified in this document, and any other obstacles to project implementation. They include a process for monitoring progress and documenting lessons learned or corrections that may be needed, and incorporating them into project decision-making in future monitoring periods. The onus is on the project proponent to demonstrate that such plans are in place, that such plans have considered the realm of potential risks and obstacles to the project, and that a system is in place for adapting to changing circumstances.” According to this definition, a grievance procedure is not		

an adaptive management plan. In case finally there is no adaptive management plan foreseen, please update the NPR Report with the proper Risk Rating. **3, 4. Closed.**	
Project participant response	**Date:** 28/07/20
1. It was confirmed that the document "NIHT Management_v1.0" was mistakenly not provided with the first round of findings responses to the auditor. The document "NIHT Management_v1.0" has been included in the documentation sent to the auditors during this round of findings responses. *2.* Consideration of the auditor's response and further investigation into the requirements for an Adaptive Management plan led us to understand that the project does not currently possess an Adaptive Management Plan. Therefore, non-permanence risk report has been updated to reflect a score of 0 which suggests the project does not have an Adaptive Management Plan in place. If the project proponent develops such a plan in accordance with the VCS guidelines in future monitoring periods, the Non-permanence risk report will be updated accordingly.	
DOE assessment	**Date:** 13/08/2020
The PP has provided the requested clarification and made the adequate corrections. **CL closed.**	

CL ID	**06**	**Date:** 22/05/2020
Description of CL		
Provide further explanation/justification of the selected likelihood for fire and extreme weather natural risks in the Non-permanence Risk Report. The current information provided points to a higher likelihood than the selected.		
Project participant response		**Date:** 22/06/2020
The frequency of fire and extreme weather natural risks were updated base on a secondary review of available data. In addition, both were updated to include further explanations for the choice of frequency and impact.		
Documentation provided by project participant		
NIHT Non-Permanence Risk Report v1.14.pdf		
DOE assessment		**Date:** 08/07/2020
The PP has provided the requested information. **CL closed.**		