



FLORESTAL SANTA MARIA PROJECT



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Summary:

RINA Services S.p.A. (RINA), commissioned by Ecológica Assessoria Ltda, verified the greenhouse gas emission reductions reported for the project activity “Florestal Santa Maria Project” in Brazil, with regards to relevant requirements for VCS rules. The objective of the project activity is management of the project area as a private conservation reserve in order to avoid unplanned deforestation. The Forestal Santa Maria farm has a total protected area of 71,713.96 ha.

The objective of the verification is to have an independent review ex post determination of the monitored reductions in GHG emission reductions, verification was conducted using RINA procedures in line with the requirements specified in the VCS version 4 requirements and applying standard auditing techniques. The verification consisted of desk review, remote site assessment and the resolution of outstanding issues and the issuance of the final verification report and certification.

The verification shall ensure that reported emission reductions are complete and accurate in accordance with applicable VCS requirements in order to be certified.

This is the second verification assessment of “Florestal Santa Maria Project” for the monitoring period of 04 May 2012 to 12 April 2019.

The GHG emission reductions were calculated on the basis of the approved methodology VCS VM0007 “REDD+ Methodology Framework (REDD-MF)” version 1.5 of 09 March 2015 and the monitoring plan included in the validated VCS PD version 1.2 of 24 February 2012.

In conclusion, it is RINA's opinion that the project activity “Florestal Santa Maria Project” in Brazil, meets all relevant requirements for VCS standard and guidelines and correctly applies the baseline and monitoring methodology VCS VM0007 “REDD+ Methodology Framework (REDD-MF)” version 1.5 of 09 March 2015. The monitoring system is in place and the emission reductions are calculated without material misstatement. Hence, RINA is able to certify that the emission reductions from the project during the monitoring period 04 May 2012 to 12 April 2019 amount to 6,076,632 tCO₂e and that tradable VCUs are 5,429,148tCO₂e.

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1 INTRODUCTION

1.1 Objective

Ecológica Assessoria Ltda has contracted RINA Services S.p.A. (hereinafter referred to as RINA) to verify the project titled “Florestal Santa Maria Project” (hereinafter referred to as the project) in the state of Mato Grosso, Brazil.

Verification is the periodic independent review and ex-post determination by an accredited verification body of the monitored reductions in GHG emissions that have occurred as a result of the registered VCS project activity during a defined verification period.

A verification statement is the written assurance by a verification body that, during a specific period in time, a project activity achieved the emission reductions as verified.

The objective of this verification was to verify and provide a verification statement of emission reductions reported for the “Florestal Santa Maria Project” for the period 04 May 2012 to 12 April 2019.

1.2 Scope and Criteria

The scope of verification is:

- To verify that actual monitoring systems and procedures are in compliance with the monitoring systems and procedures described in the monitoring plan.
- To evaluate the GHG emission reduction data and express a conclusion with a reasonable level of assurance about whether the reported GHG emissions reduction data is free from material misstatement.
- To verify that reported GHG emissions data is sufficiently supported by evidence.
- To verify that the stakeholder consultation carried out is relevant and there are mechanisms for on-going communication.

The VCS MR is reviewed against the criteria stated in the VCS Version 4.0, and the relevant documents and policy announcements made by the VCSA, and the criteria stated in the VCS methodology VM0007 “REDD+ Methodology Framework (REDD-MF)”, version 1.5 of 09 March 2015.

The verification shall ensure that reported emission reductions are complete and accurate in order to be verified.

1.3 Level of Assurance

RINA provides reasonable assurance that the “Florestal Santa Maria Project” meets VCS criteria. To ensure complete transparency, any clarification or corrective actions raised have been included in the Appendix A. The verification expresses a conclusion with a reasonable level of assurance about whether the reported GHG emission reduction data is free from material misstatement.

In addition, RINA applies materiality threshold of 5 per cent with respect to omission or misstatement concerning reported quantities as per VCS Standard.

All the revisions of the verification report before being submitted to the client were subjected to an independent internal technical review to confirm that all verification activities had been completed according to the pertinent RINA instructions, with reasonable level of assurance.

The technical review was performed by a technical reviewer(s) qualified in accordance with RINA's qualification scheme for VCS and CDM validation and verification.

The verification team and the technical reviewers consist of the following personnel.

Role	Last Name	First Name	Country
Lead Assessor/ Verifier	Leiroz	Andrea	External Auditor - Rina Brazil
Technical Expert	Menon	Rekha	External Auditor – Rina India
Technical Expert (training)	Góes	Gustavo	External Auditor - Rina Brazil
Technical Reviewer	Principe	Geisa	Internal Technical Reviewer
Technical Reviewer (Expert)	Singh	Vinay	Internal Technical Reviewer

1.4 Summary Description of the Project

The proponent and developer of the project is Florestal Santa Maria (FSM)S/A. This second verification monitoring report has been developed by Ecologica Assessoria Ltda. The electronic addresses of the companies cited above are available in section 1.4 of the MR.

The FSM farm is a rural property solely dedicated to sustainable management of natural forests located in the Municipality of Colniza, State of Mato Grosso. The geopolitical region is within the Brazilian Legal Amazon.

The project activity is management of the project area as a private conservation reserve in order to avoid unplanned deforestation. The objective of the project is to conserve an area of 71,713.96 ha, located in the municipality of Colniza, state of Mato Grosso in Brazil. The land is a private land, owned by FSM from the year 2002. The same was also cross checked with the land deed documents /4/-/8/.

2 VERIFICATION PROCESS

2.1 Method and Criteria

The verification consisted of the following three phases in accordance with the approved methodology, the VCS Standard version 4.0 and other relevant VCS requirements:

- A desk review of the project documents.
- Follow-up interviews with project stakeholders and remote site inspection.
- The resolution of outstanding issues and the issuance of the validation and verification report and opinion.

The following sections outline each step in more detail.

2.2 Document Review

The VCS MR submitted by Ecológica Assessoria and additional background documents related to the project design and baseline, i.e., VCS Monitoring Report Template, Approved VCS methodology, Validation and Verification Requirements, scientific literature and country law were reviewed.

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

Documents provided by the project participant related directly to the VCS.

/1/	Ecológica Assessoria Ltda: VCS Monitoring Report for project activity “Florestal Santa Maria Project”, version 1.0 dated 21 December 2020, version 1.1 dated 16 February 2021 and version 3 dated 04 March 2021.
/2/	Ecológica Assessoria Ltda: Emission reductions calculation spreadsheet. MR2_SPREADSHEET_21_12_2020.xls, MR2_SPREADSHEET_16_02_2021.xls and MR2_SPREADSHEET_04_03_2021.xls
/3/	Ecológica Assessoria Ltda: Non-Permanence risk report.

	“VCS Non-Permanence-Risk Report-Florestal Santa Maria REDD Project - MR 2 - v01.pdf”, “VCS Non-Permanence-Risk Report-Florestal Santa Maria REDD Project - MR 2 - v02.pdf” and “VCS Non-Permanence-Risk Report-Florestal Santa Maria REDD Project - MR 2 - v03.pdf”. “FSM_VCS Risk Report Calculation Tool_v01.xls” and “VCS Risk Report Calculation Tool_FSM REDD Project_vo2.xls”.
/4/	6th Notary Service and Real Estate Registry, Book 2, enrolment number 73,958, sheet 130. AV-03-73958 – According to the Responsibility Term of Maintenance of Management Forest. 1st Notary Service and Real Estate Registry, Book 2, enrolment number 2,558, sheets 1-8. AV-03 – Refers to the previous land title document with enrolment number 73,958.
/5/	Land title document: Rural property registration certificate (CCIR) with INCRA: CCIR 2020.pdf.
/6/	Income tax declaration 2020: 63814455-ITR-2020-ORIGI-Recibo.pdf
/7/	Taxo n rural territorial property 2020: 63814455-ITR-2020-ORIGI-Declaracao.pdf
/8/	Registration of rural property in the Rural Environmental Registry (CAR) dated 14 January 2016: Recibo Sicar - Florestal Santa Maria S.A - MT-5103254-76E3467E63C34214AE1AA91D584E1CD6.pdf
/9/	Environmental license Unique #7393/2009 issued by the Environmental Secretary of Mato Grosso State (SEMA) on 29 December 2009 and valid until 27 December 2017.
/10/	Authorization for Forest Exploitation (AUTEX) issued by the Environmental Secretary of Mato Grosso State (SEMA): Forestry License #486/2017 issued by the Environmental Secretary of Mato Grosso State (SEMA) on 08 May 2017 and valid until 08 May 2052.
/11/	Forest Management Plan elaborated by STCP Engenharia de Projetos Ltda in April 2002.
/12/	Satellite imagery and Remote Sensing Documents. UPAS FSM.zip.
/13/	Transects map. Inventory plot calculation issued by Plant Inteligência Ambiental.
/14/	National Indian Foundation (FUNAI) certificate attesting that there is no Indians inside the FSM property. Ofício No 305/DPT/2012 dated 03 May 2012 and valid until 03 May 2014.

	FUNAI: map based on all Indigenous lands within the State of Mato Grosso Available at: http://www.funai.gov.br/index.php/shape.
/15/	Adaptative management plan issued by FSM: Internal procedure for controlling deforestation and fire prevention - CONTROLE PATRIMONIAL DA FAZENDA E PREVENÇÃO / COMBATE A INCÊNDIOS dated 13 December 2011 revision 0. Procedure for acidentes and emergencies inside the Project área - Plano de Ação Emergencial.doc dated 01 August 2012. Bases FSM.png
/16/	Agreement signed between Ecológica Assessoria Ltda and Florestal Santa Maria Ltda dated 09 September 2020.
/17/	Annual Operational Plans of the Sustainable Management Plan developed by Savana Assessoria e Projetos Florestais: Mapa Exploratório - UPA 25 – 2012.pdf Mapa Exploratório - UPA 20 – 2014.pdf Mapa Exploratório - UPA 19 – 2016.pdf
/18/	Social impact avaluation report dated October 2012 and issued by FSM: Relatório Avaliação de Impacto Social_2012.pdf
/19/	Training courses: Forest management training and training program issued by Instituto Florestal Tropical in 2012 Driver's license course – 2014.
/20/	Expenses with policing in the FSM: Cashflow issued by FSM - 1 - Fluxo Caixa - investimento.xlsx Pay check of the employees involved in the policing of FSM.

Standards, methodologies, and other guidance by the VCSA and CCBA

/21/	Verified Carbon Standard: VCS Standard version 4.0 dated 19 September 2019.
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/22/	Verified Carbon Standard: VCS Validation and Verification Manual, version 4.0 dated 19 September 2019.
/23/	Verified Carbon Standard: VCS Program Definitions version 4.0 dated 19 September 2019.
/24/	Verified Carbon Standard: VCS Guidance for Standardized Methods version 3.3 dated 08 October 2013.
/25/	Verified Carbon Standard: VCS Program Guide version 4.0 dated 19 September 2019.
/26/	Verified Carbon Standard: VCS Verification Report Template, VCS version 4 dated 19 September 2019.
/27/	Verified Carbon Standard: VCS Monitoring Report Template, VCS version 4 dated 19 September 2019.
/28/	Verified Carbon Standard: VCS AFOLU Non-Permanent Risk Tool version 4.0 dated 19 September 2019.
/29/	Verified Carbon Standard: VCS Non-Permanent Risk Report Template version 4.0 dated 19 September 2019.
/30/	Verified Carbon Standard: VCS Methodology – VM0007 – REDD+ Methodology Framework (REDD-MF), version 1.5 dated 09 March 2015.
/31/	CDM: Guidelines on Assessment of Different Types of Changes from the Project Activity as Described in the registered PD.
/32/	RINA Accreditation: https://verra.org/project/rina-services-s-p-a/
/33/	CDM Executive Board: Guidelines for Application of materiality in verifications, version 02.0.

Documentation used by RINA to validate / cross-check the information provided by the project participant

/34/	VCS Listing Representation dated 29 October 2020. “VCS-Listing-Representation-Multiple-Representors-v4.1.pdf”
/35/	VCS approved Project Design for the project activity Florestal Santa Maria. Available at: https://registry.verra.org/app/projectDetail/VCS/875 .
/36/	VCS approved Validation Report for the project activity Florestal Santa Maria. Available at: https://registry.verra.org/app/projectDetail/VCS/875 .

/37/	VCS approved Monitoring Report for the project activity Florestal Santa Maria. Available at: https://registry.terra.org/app/projectDetail/VCS/875 .
/38/	VCS approved Verification Report for the project activity Florestal Santa Maria. Available at: https://registry.terra.org/app/projectDetail/VCS/875 .
/39/	2006 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 4, Chapter 4 AFOLU.
/40/	NOGUEIRA, E.M.; FEARNside, P.M.; NELSON, B.W.; BARBOSA, R.I.; KEIZER, E.W.H., 2008. Estimates of forest biomass in the Brazilian Amazon: New allometric equations and adjustments to biomass from wood-volume inventories. Forest Ecology and Management, 256(2008): 1853-1867.
/41/	COLPINI, C.; TRAVAGIN, D.P.; SOARES, T.S.; SILVA, V.S.M. e, 2009. Determinação do volume, do fator de forma e da porcentagem de casca de árvores individuais em uma Floresta Ombrófila Aberta na região noroeste de Mato Grosso. Acta Amazonica, 39(1): 97-104.
/42/	SALDARRIAGA, J.G., WEST, D.C., THARP, M.L., UHL, C., 1988. Long-term chronosequence of forest succession in the upper Rio Negro of Colombia and Venezuela. Journal of Ecology, 76: 938–958.
/43/	Reforestation project located at the INCRA project called “Assentamento Manchete”, in Tocantins State. http://iecologica.blogspot.com.br/2009/06/entre-os-meses-de-janeiro-e-maio-de.html and http://www.ecologica.org.br/en/carbono-florestal/ .
/44/	Conservation, regeneration and agroforestry systems projects on Ilha do Bananal. http://www.ecologica.org.br/en/sequestro-de-carbono-na-ilha-do-bananal/ . Boyd et al. Exploring socioeconomic impacts of forest-based mitigation projects: Lessons from Brazil and Bolivia. Environmental Science & Policy. Number 10 (2007). pp. 419 – 433.
/45/	Mr. Haddad’s CV: Available at: http://buscatextual.cnpq.br/buscatextual/visualizacv.do?id=K4491762P1 .
/46/	“Ecomapuá Amazon REDD Project” in the State of Pará, Brazil. Available at: https://registry.terra.org/app/projectDetail/VCS/1094 .
/47/	“Genesis Forest Project: Reducing Greenhouse Gas Emissions from Deforestation and Degradation” in the State of Tocantins, Brazil. Available at:

	https://registry.verra.org/app/projectDetail/CCB/1588
/48/	“Genesis Forest Project: Reforestation of Brazilian Savannah with Native Species” in the State of Tocantins, Brazil. Available at: https://registry.verra.org/app/projectDetail/CCB/1589
/49/	Development of Environmental and Socio-Economic Indicators for REDD projects to be used under the SOCIALCARBON Standard. Available at: http://www.socialcarbon.org/wp-content/uploads/2012/11/Template_Submission_of_Indicators-for-an-Amazon-REDD-Project_v1-1_08_11_201311.pdf.
/50/	Mr. Haddad participation in several activities in charge of the Governors Climate and Forests Task Force. Available at: http://www.ecologica.org.br/en/projeto-gcf-tocantins-a-forca-tarefa-dos-governos-para-clima-e-florestas/. https://seagro.to.gov.br/noticia/2014/10/10/curso-sobre-meio-ambiente-e-encerrado-com-estudos-de-caso/.
/51/	Mr. Haddad's master thesis: “An analysis of REDD+ mechanisms and their benefits in Brazil”, May 2013. Available at: http://cassiopea.ipt.br/teses/2013_TA_Marcelo_Haddad.pdf.
/52/	World Bank Institute's Worldwide Governance Indicators. Available at: http://info.worldbank.org/governance/wgi/Home/Reports.
/53/	Governors' Climate and Forest Taskforce. Available at: https://www.gcftf.org/member-states.
/54/	Fire risk calculation methodology. Available at: http://queimadas.cptec.inpe.br/~rqueimadas/documentos/RiscoFogo_Sucinto.pdf.
/55/	Brazilian National Institute of Space Research - INPE. Available at: http://queimadas.dgi.inpe.br/queimadas/portal/informacoes/perguntas-frequentes#indice.
/56/	Brazilian National Institute of Space Research – INPE. Available at: http://queimadas.dgi.inpe.br/queimadas/bdqueimadas#.

/57/	Meteorological Database for Research and Education. Available at: http://www.inmet.gov.br/portal/index.php?r=bdmep/bdmep.
/58/	Meteorological National Institute. Available at: http://www.inmet.gov.br/portal/index.php?r=home2/index.
/59/	National Weather Service (USA): weather categories determined using Saffir-Simpson Hurricane Wind Scale: http://www.nhc.noaa.gov/aboutsshws.php.
/60/	Espírito-Santo et al. (2010). Storm intensity and old-growth forest disturbances in the Amazon region, Geophysical Research Letter, Volume 37, L11403. Available at: http://onlinelibrary.wiley.com/doi/10.1029/2010GL043146/pdf.
/61/	Geological risk mapping report. 2014's report available at: http://rigeo.cprm.gov.br/jspui/bitstream/doc/20912/1/inventario_movimentos_massa_mt.pdf.
/62/	Brazilian's geological service. Available at: http://www.cprm.gov.br/.
/63/	Ministérios das Cidades. Capacitação em Mapeamento e Gerenciamento de Risco. Available at: http://www.defesacivil.mg.gov.br/images/documentos/Defesa%20Civil/manuais/mapeamento/mapeamento-grafica.pdf.
/64/	State Environmental Secretary: official document for the volume of timber extracted - Listagem de Movimentação de Empreendimento. ANO 2012.pdf; ANO 2013.pdf; ANO 2015.pdf; ANO 2016.pdf
/65/	Luis Fernando de Moura CV.
/66/	Rubens Alves de Lima CV.
/67/	Municipal population: IBGE data. Available at: ftpftp.ibge.gov.br/Estimativas_de_Populacao/Estimativas_2012; ftpftp.ibge.gov.br/Estimativas_de_Populacao/Estimativas_2013; ftpftp.ibge.gov.br/Estimativas_de_Populacao/Estimativas_2014; ftpftp.ibge.gov.br/Estimativas_de_Populacao/Estimativas_2015; ftpftp.ibge.gov.br/Estimativas_de_Populacao/Estimativas_2016; ftpftp.ibge.gov.br/Estimativas_de_Populacao/Estimativas_2017; ftpftp.ibge.gov.br/Estimativas_de_Populacao/Estimativas_2018; ftpftp.ibge.gov.br/Estimativas_de_Populacao/Estimativas_2019.

/68/	Municipal births: DataSus. Available at: http://tabnet.datasus.gov.br/cgi/defthtm.exe?sinasc/cnv/nvmt.def .
/69/	Municipal deaths: DataSus. Available at: http://tabnet.datasus.gov.br/cgi/tabcgi.exe?sim/cnv/obt10mt.def .
/70/	IBGE: Description of Legal Amazon. Available at: https://www.ibge.gov.br/geociencias/cartas-e-mapas/mapas-regionais/15819-amazonia-legal.html .
/71/	SEMA: Preservation area. Available at: http://meioambiente.am.gov.br/unidade-de-conservacao/ .
/72/	ZANUNCIO JUNIOR, José Salazar <i>et al.</i> Manejo Agroecológico de Pragas: alternativas para uma agricultura sustentável. Revista Científica Intelletto , Venda Nova do Imigrante, v. 3, n. 3, p. 18-34, 2018. Available at: https://biblioteca.incaper.es.gov.br/digital/bitstream/123456789/3582/1/Manejo-agroecologico-de-pragas-v3-n3-2018.pdf .
/73/	FSM website – communication channel. Available at: http://www.florestalsantamaria.com.br/site/en/contato.php .
/74/	CDM Executive Board agrees to relax mandatory site visits by DOEs until 30 June 2021 because of COVID-19.
/75/	Shapes and maps of harvested areas.

2.3 Interviews

On 27, 28 and 29 January 2021, the verification team from RINA conducted the remote audit to the “Florestal Santa Maria Project” based on videoconference (Skype meeting) and performed interviews with project proponents’ staff. The remote audit video is available with Audit team.

	Date	Name	Organization	Role	Topic
/76/	27, 28 and 29 January 2021	Marcelo Haddad	Ecológica Assessoria Ltda	Technical coordinator	Verification of actual implementation as per VCS PD, satellite data acquisition and processing,

					calibration data, records and storage of data, ER calculations, comparison between recorded data and calculation spreadsheets. Monitoring plan. Non-permanence risk report.
/77/	27 and 29 January 2021	Yara Fernandes	Ecológica Assessoria Ltda	Technical analyst	Verification of actual implementation. Monitoring plan.
/78/	27, 28 and 29 January 2021	Stefano Merlin	Ecológica Assessoria Ltda	Director	Verification of actual implementation as per VCS PD, satellite data acquisition and processing, calibration data, records and storage of data, ER calculations, comparison between recorded data and calculation spreadsheets. Monitoring plan. Non-permanence risk report.
/79/	27 and 29 January 2021	Rubens Alves de Lima	Florestal Santa Maria S.A.	President	Ownership, verification of actual implementation. Monitoring plan.

/80/	27, 28 and 29 January 2021	Luis Fernando de Moura	Ecológica Assessoria Ltda	Consultant	Verification of actual implementation as per VCS PD, satellite data acquisition and processing, calibration data, records and storage of data, ER calculations, comparison between recorded data and calculation spreadsheets. Monitoring plan. Non-permanence risk report.
/81/	28 January 2021	Lyara Amaral	Ecológica Assessoria Ltda	Technical analyst	Non-permanence risk report.
/82/	27, 28 and 29 January 2021	Renan Kamimura	Ecológica Assessoria Ltda	Consultant	Verification of satellite data acquisition and processing.
/83/	29 January 2021	Elza Martins dos Santos	-	Community resident	FSM
/84/	29 January 2021	Alex Alves de Sena	-	Community leader	FSM

2.4 Site Inspections

In addition, audit team has conducted a videoconference with PP on different topics as mentioned under section 2.3 of this report. The remote audit video is available with Audit team.

Based on the videoconference (Skype), VCS MR /1/ review, as the review of VCS procedures and guidelines, RINA Verification team has proceeded to skip the presential site visit due to the COVID-19 pandemic /74/. Verification team has used the following alternative means for its assessment and to justify that they are sufficient for the purpose of verification.

- By review of VCS MR;
- By taking follow up actions by conducted interview with PP, to gather information about knowledge of project design, current situation via videoconference. Cross-checked evaluation under the scope of all information and references provided in VCS MR. Details of interviews, topics covered and additional information presented in the above section “2.4 – Interviews”.

2.5 Resolution of Findings

The objective of this phase of the verification was to resolve any outstanding issues that needed be clarified prior to RINA's positive conclusion on the monitoring report.

A corrective action request (CAR) is issued if one of the following occurs:

The project participants have made mistakes that will influence the ability of the project activity to achieve real, measurable additional emission reductions.

The VCS requirements have not been met.

There is a risk that emission reductions cannot be monitored or calculated.

A clarification request (CL) is raised if information is insufficient or not clear enough to determine whether the applicable VCS requirements have been met.

10 CARs and 04 CLs were raised and have been adequately addressed by the project participant (refer to Appendix 2).

2.5.1 Forward Action Requests

A forward action request (FAR) is raised during validation to highlight issues related to project implementation that require review during the first verification of the project activity.

A forward action request (FAR) should be issued, where:

1. the actual project monitoring and reporting practices requires attention and /or adjustment for the next consecutive verification period, or
2. an adjustment of the MP is recommended.

No forward action requests (FAR) were identified.

2.6 Eligibility for Validation Activities

As of the contractual service date with the client, RINA holds accreditation for validation and verification activities under sectoral scope 14 as set out by the eligibility guidelines set forth in the VCS Program Guide /25/ and as recognized by the VCSA /32/.

3 VALIDATION FINDINGS

3.1 Participation under Other GHG Programs

The project has not participated or been rejected under any other GHG programs since validation or previous verification.

3.2 Methodology Deviations

Throughout the verification process for this monitoring period (04 May 2012 to 12 April 2019), a project methodology deviation was identified.

In the analysis of leakage outside the leakage belt, for calculating PROPIMM, the participatory rural appraisal (PRA) approach was replaced by local official data available from IBGE. This practice is justified by the fact that the IBGE and DataSus have a precise approach for accounting population locally, which allowed calculating the number of immigrants from 2012 to 2019 in the municipality of Colniza. The number of immigrants has been estimated assuming that the annual growth in the municipal population /67/, excluding the difference between births /68/ and deaths /69/, reflects the exact number of immigrants according to official available data. According to the number of immigrants, we have inferred the proportion of deforestation attributed to immigrant agents.

As the country has a great variety of forest biomes in all its extension, TOTFOR considered only the Amazon Rainforest biome, instead of the whole Brazilian territory. This is a conservative approach. Thus, as a representation of the total area of Amazon Rainforest in Brazilian Territory, TOTFOR consisted of the total Amazon forest area (5,015,067.749 km²) /70/ multiplied by the net preserved forest (97%) /71/. As TOTFOR was considered only for the Amazon biome, PROTFOR and MANFOR were evaluated solely for Brazilian Northern and Centre-West macro-regions.

3.3 Project Description Deviations

Throughout the verification process for this monitoring period (04 May 2012 to 12 April 2019), the following project description deviations were identified.

1. The areas exploited inside the FSM farm from 13 April 2009 to 31 December 2011 (1st monitoring period) and from 01 April 2017 to 12 April 2019 (current monitoring period) were excluded from the

calculation of VCU benefits. This is due to the fact that these areas were not certified by the FSC (Forest Stewardship Council) at the moment of timber harvest and, consequently, were not eligible to the Project, according to M-MON v2.1. Thus, the baseline emissions and project emissions occurring inside these areas were not quantified for the present verification period. It is explained in the MR that the project calculations have been designed to project deforestation firstly in all “Very High” risk deforestation areas, followed by “High” risk areas, and so on. Thus, the current total “Very High” risk area in the PA is 22,509.1 hectares, from which 5,549.98 hectares have been projected to be deforested in the 1st Monitoring Period. For the current monitoring period, 12,841.24 hectares have been projected for deforestation in PA. Consequently, there are still 4,117.8 hectares to be deforested in the “Very High” risk areas, prior to beginning the projected deforestation in “High” risk areas. It is checked that the for the first MP, the area is excluded from UPA 23 and 24, which results to an area of 8267.1 and for the 2nd MP it is from UPA 25, which results to 5410.6. Shape and maps of the non-FSC harvested areas checked and the same was found to be appropriate /75/.

2. For the calculation of the deforestation rate in the registered VCS PD /35/, the difference in deforested areas between the satellite images was systematically divided by 3, assuming that the interval between the images was 3 years. However, a detailed assessment of the calculations shows that the interval between the images does not correspond to 3 years. In this scenario, the intervals between the satellite images were adjusted, in order to obtain the exact interval to be considered in the deforestation rate calculations. Moreover, the deforestation rate has been decreased inside the project area, due to deduction of areas harvested without FSC certification during the monitoring period. This mathematical operation caused variation in the calculation of deforestation rate, which has changed from 2,104.9 ha/year (VCS PD /35/) to 1,850.1 ha/year (current monitoring period).

3. The sum of parameters SLFty (Fraction of wood products that will be emitted to the atmosphere within 5 years of timber harvest by class of wood product ty; dimensionless) and OFty (Fraction of wood products that will be emitted to the atmosphere between 5 and 100 years of timber harvest by class of wood product ty; dimensionless) was more than 1 (i.e. 100%). In this case, given that SLFty is indicated to be 0.2 for sawnwood (default value, according to VCS Module VMD0005 REDD Methodological Module: Estimation of Carbon Stocks in The Long-Term Wood Products Pool (CP-W)), the OFty has been adjusted to 0.8 (current Monitoring Report), instead of 0.84 (VCS PD /35/).

4. The logging damage factor used has been set as 0.67 tC/m³, being the most conservative default value, proposed in M-MON v2.1. This was also the most conservative value for logging damage factor in the VCS-PD.

5. The deduction factor (LFME) was adopted as 0.2 (since the 1st monitoring report) instead of 0.4 (VCS PD /35/), based on the fact that the forest biomass is considered to be less in project area than in the average of Amazon Biome. It is important to consider that the “Market Leakage” is not calculated only for the reference area, but for all Amazon Biome. The scientific literature demonstrates that the forest occurring inside the FSM region has less biomass than that observed in the average of Amazon Biome. Thus, it is expected that the areas to be deforested in the Amazon

Biome in the project case, as a result of project leakage, are less than those that would be observed in the project region.

6. There is a mistake in the frequency of monitoring / recording of $A_{RRL,forest,t}$ (Remaining area of forest in RRL at time t), which was set to 5 years in the 1st monitoring report and VCS PD /35/. This frequency has then been corrected to every 10 years, since it is only applicable to the baseline renewal.

It is RINA's opinion that these deviations do not impact the applicability of the methodology, additionality or the appropriateness of the baseline scenario.

3.4 Grouped Project

Not applicable. As stated in section 1.2 of the registered PD, the project activity is not a Grouped Project.

4 VERIFICATION FINDINGS

4.1 Project Implementation Status

During the remote audit, through observations of project activities and interviews with project personnel (see /76/ - /84/) RINA confirmed that the project has been implemented throughout this monitoring period as it was described in the monitoring report /1/ including all documented project description deviations.

The monitoring report was cross-checked against the monitoring plan submitted in the registered PD /35/ to ensure compliance in terms of GHG emission reduction calculations as well as monitoring occurrences. RINA also conducted interviews (see /76/ - /84/) to confirm that monitoring plans were implemented as described in the registered VCS PD /35/.

The verification team has determined whether the monitoring plan has been properly implemented and followed by PP that the monitoring has been carried out in accordance with the registered monitoring plan; and determined whether all parameters including project emission parameters, baseline emission parameters and leakage emission parameters used for emission reduction calculation stated in the registered monitoring plan are monitored or used appropriately as per the registered VCS PD /35/.

During the verification all monitoring parameters listed in Section 4 of MR /1/ were compared with monitoring parameters and the monitoring plan of the registered VCS PD /35/ and have been verified with regard to appropriateness of the applied measurement / determination method, the correctness of the values applied for ER calculation /2/, the accuracy and applied QA/QC measures.

In line with Guidelines for Application of materiality in verifications /33/, a reasonable level of assurance is defined for the verification of the project by complete verification of all the values indicated in the emission reduction spreadsheet at the document review stage and remote site. There are no material errors, omissions or misstatements.

There are no material discrepancies between the actual monitoring system, and the monitoring plan set out in the project description and the applied methodology.

The GHG emission reductions or removals generated by the project have not become included in an emissions trading program or any other mechanism that includes GHG allowance trading.

The project has not received or sought any other form of environmental credit, or has not become eligible to do so since validation or previous verification.

The project has not participated or been rejected under any other GHG programs since validation or previous verification.

The project sustainable development contribution was assessed and confirmed by the VVB through remote assessments and interviews (see /76/ - /84/) with project management team and with supporting documents provided by PP. For more information refers to the SOCIALCARBON report.

Regarding the VCS, validated methodologies deviations remain during this verification period. The following validated methodology deviations were noted:

1. As stated in the validation report /36/ and section 2.6 of the VCS PD /35/, in the analysis of leakage outside the leakage belt, for calculating $PROP_{IMM}$, the participatory rural appraisal (PRA) approach was replaced by local data available from IBGE (Brazilian Institute of Geography and Statistics). This practice is justified by the fact that the IBGE has a precise approach for accounting population locally, which allows calculating the number of immigrants for a given period of time in the municipality of Colniza. Based on the number of immigrants, PP has inferred the proportion of deforestation attributed to immigrant agents as required by the methodology.
2. As the country has a great variety of forest biomes in all its extension, TOT_{FOR} considered only the Amazon Rainforest biome, instead of the whole Brazilian territory. This is a conservative approach. Thus, as a representation of the total area of Amazon Rainforest in Brazilian Territory, TOT_{FOR} consisted of the total Amazon forest area (5.015.067,749 km²) /70/ multiplied by the net preserved forest (97%) /71/. As TOT_{FOR} was considered only for the Amazon biome, $PROT_{FOR}$ and MAN_{FOR} were evaluated solely for Brazilian Northern and Centre-West macro-regions.

Thus, it's RINA's conclusion that, except for the project description deviation described in section 3.3 of this report, the project has been implemented as described in the project description.

4.2 Safeguards

4.2.1 No Net Harm

The potential negative environmental and socio-economic impacts identified by the project proponent as well the positive ones have been identified in the SOCIALCARBON report and are shown in the table below. FSM established procedures to monitor and report on environmental or socioeconomic impacts from its forest operations throughout the entire monitoring period. For more information regarding to mitigation actions to such impacts refers to the SOCIALCARBON Report.

Activity	Aspect	Impact	Effect		Comments/ Observation (refers to the Social Carbon report)
			Beneficial	Adverse	
REDD: Carbon credit project	Conservation of Amazon Rainforest	Greenhouse Gas Emissions Reductions	X		Monitored by the Carbon resource: Project performance.
REDD: Carbon credit project	Conservation of Amazon Rainforest	Monitoring and supervision to avoid deforestation of forest within the project area.	X		Monitored by the Biodiversity resource: Biodiversity conservation.
REDD: Carbon credit project	Conservation of Amazon Rainforest	Conflict management with communities in the project area, due to land tenure issues		X	Monitored by the Carbon resource: - Stakeholder consultation Monitored by the Natural resource: - Land tenure.
REDD: Carbon credit project	Application of the Social Carbon methodology	Encouragem ent and investment in research on social, economic	X		Monitored by the Human resource: - Public Health - Community education

		and environmental aspects in the project region.			Monitored by the Financial resource: - Securing of funds Monitored by the Natural resource: - Social and environmental investments Monitored by the Biodiversity resource: - Biodiversity research.
REDD carbon project	Uncertainties relating to standing forest in the future.	Non permanence of carbon: Time which carbon will remain stocked in live biomass, without being emitted into the atmosphere. Due to the uncertainties related to what will happen to the forest in future, there is a risk of non- permanence of forest carbon.		X	Monitored by the Carbon resource: Buffer reduction.
Sustainable forest management	Vehicle transport	Air Pollution, Noise and soil erosion		X	Monitored by the Human resource: Conflict management.

Sustainable forest management	Presence of company/ workers on local communities	Conflicts between company/ workers and local communities		X	Monitored by the Human resource: Conflict management.
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4.2.2 Local Stakeholder Consultation

As stated in the MR /1/, during the validation of project activity, an explanatory letter was sent to major stakeholders asking their opinion about the project and they were also invited to get to know and comment on the project through the communication channel (the project website). Furthermore, the stakeholders were informed that the period for requesting information and comments about the project was 30 days from the receipt of the letter, and it could be done through the form for comments, which should be sent by email or via the website. As no answer was obtained within 30 days, it was assumed that stakeholders have no objections to the project activity.

From the project validation onwards, two communication channels were created for the project. During the remote audit, the verification team checked the online permanent communication channel with local stakeholders /73/ that was created to receive any comments or suggestions regarding the present REDD project. All comments received are documented and stored in digital format for up to two years. The local communication channel was created to establish an effective interaction with the residents of the region, it consists of a public summary of the management plan and activities of the project, containing the physical, electronic address and contact phone. The SOCIALCARBON methodology also analyzes the frequency and methods used for addressing the outcomes of each local stakeholder consultation. There were messages sent through the online platform registered on this monitoring period, however, none were addressed specifically to the Florestal Santa Maria REDD Project, but to questions about carbon projects.

No stakeholder consultations were carried out during this monitoring period. However, the project owner often holds meetings with farm employees, where the carbon project and its benefits are discussed. Moreover, through the informal communication channel, the residents of the region contacted the housekeepers at the base of the project to request assistance such as transporting purchases and buying medicines, for example, and were promptly attended to. This information was confirmed through interviews with some stakeholders /83/ /84/.

During the remote audit, the verification team interviewed some stakeholders and all of them were of positive opinion. The stakeholders interviewed confirmed that FSM has processes to communicate and consult the local stakeholders /83/ /84/.

4.3 AFOLU-Specific Safeguards

The identification of the local stakeholders was done through a research and social activities developed by FSM. As described in the MR, the activities implemented by PP to mitigate risks to local stakeholders due to project implementation were evaluated as part of the SocialCarbon certification. A clearly description of the impacts was included in section 2.3 of the MR.

The verification team confirmed that the land belongs to and was owned by FSM /5/-/8/ and there are no communities residing in the project area. In addition, the project owner formally hired the local community, offered technical training, workplace security, first aid and fire training programs, and providing education for children. Conflict management was monitored as part of the SocialCarbon certification.

RINA was informed about the processes used by PP to communicate and consult with local stakeholders during the validation /35/ /36/ and checked the communication channel created and used during the monitoring period /73/. Grievance redress and conflict management procedures, as well as benefit sharing mechanisms have been discussed in communication meetings with farm employees. in case of any grievances, this will be resolved in a suitable timeframe whenever possible, taking into account culturally-appropriate conflict resolution methods.

4.4 Accuracy of GHG Emission Reduction and Removal Calculations

The net GHG emission reductions and removals as calculated as:

$$ER = BE - PE - LE$$

Baseline emissions are calculated as the sum of baseline emissions from unplanned deforestation and emissions from biomass burning in the baseline minus the sum of wood products, pasture, and coffee carbon pools in the baseline case.

The total baseline emissions for this monitoring period were estimated as 7,101,290 tCO₂e /2/.

Project emissions are determined as the sum of emissions arising from logging gap in project area and emissions from constructing logging infrastructure for removal of timber in project area minus the wood products carbon pool in project area.

The total project emissions for this monitoring period were estimated as 324,192 tCO₂e /2/.

Leakage emissions are determined as the sum of market leakage, leakage outside the leakage belt and leakage emissions due to activity shifting.

The total leakage emissions for this monitoring period were estimated as 700,466 tCO₂e /2/.

VVB conducted a rigorous review of all input data, parameters, formulas, calculations and output data and verified that the GHG emission reductions and/or removals have been quantified in

accordance with the project description (with the exception of the methodology deviation discussed in section 3.3 of this report) and applied methodology /30/.

The total GHG emissions reductions and removals for the monitoring period from 04 May 2012 to 12 April 2019 is 6,076,632 tCO₂e /2/.

Below how the parameters used in formulae above have been verified:

Parameters Available at Validation and Data Fixed Ex-ante

Parameter (see PD for descriptions)	Source of data	Reported value	Assessment/Observations
CF	IPCC /39/	0.47	This parameter was evaluated during the validation process. RINA confirmed that the reported values are equal to that in section 4.1 of the registered VCS PD /35/.
R	IPCC /39/	0.37	
$\ln(\text{Volume, m}^3) = -8.939 + 2.507 \cdot \ln(\text{DBH, cm})$	Local literature /40/	$\ln(\text{Volume, m}^3) = -8.939 + 2.507 \cdot \ln(\text{DBH, cm})$	
$\text{Volume, m}^3 = -0.4306 + 0.0011 \cdot (\text{DBH, cm})^2$	Local literature /41/	$\text{Volume, m}^3 = -0.4306 + 0.0011 \cdot (\text{DBH, cm})^2$	
$\ln(\text{Mass, kg}) = -6.3789 - 0.877 \cdot \ln(1/(\text{DBH, cm})^2) + 2.151 \cdot \ln(\text{Height, m})$	Local literature /42/	$\ln(\text{Mass, kg}) = -6.3789 - 0.877 \cdot \ln(1/(\text{DBH, cm})^2) + 2.151 \cdot \ln(\text{Height, m})$	

Parameters and Data Monitored

Data unit / Parameter	Accuracy of GHG emission reductions and removals	Whether the methods and formulae set out in the project description for calculating baseline emissions, project emissions and leakage have been followed	Appropriateness of any default values

Project Forest Cover Monitoring Map	The Land cover / land use analysis followed the methodology which was presented in the baseline. As per the Methodology, The Satellite Imagery Minimum spatial resolution is mentioned as 30 m. For this time, Landsat 8 (Operational Land Imager (OLI) and the Thermal Infrared Sensor (TIRS). These two sensors provide seasonal coverage of the global landmass at a spatial resolution of 30 meters (visible, NIR, SWIR)) Images was used for the classification, which is also 30 m spatial resolution. Furthermore, the selected images are captured in July 2019, which is dry season of the project area and less cloud cover is avoiding the extrapolation due to these factors, the accuracy of the analysis is maintained as per the methodology.	RINA confirmed that the monitoring methods were followed as stated in section 4.2 of the registered VCS PD /35/.	Not applicable.
Leakage Belt Forest Cover Monitoring Map	The Land cover / land use analysis followed the methodology which was presented in the baseline. As per the	RINA confirmed that the monitoring methods were followed as stated in section 4.2 of the	Not applicable.

	Methodology, The Satellite Imagery Minimum spatial resolution is mentioned as 30 m. For this time, Landsat 8 (Operational Land Imager (OLI) and the Thermal Infrared Sensor (TIRS). These two sensors provide seasonal coverage of the global landmass at a spatial resolution of 30 meters (visible, NIR, SWIR)) Images was used for the classification, which is also 30 m spatial resolution. Furthermore, the selected images are captured in July 2019, which is dry season of the project area and less cloud cover is avoiding the extrapolation due to these factors, the accuracy of the analysis is maintained as per the methodology.	registered VCS PD /35/.	
A _{burn,i,t}	The areas burnt has been cross checked against remote sensing imagery by PRODES /12/.	RINA confirmed that the monitoring methods were followed as stated in section 4.2 of the registered VCS PD /35/.	Not applicable. Measured.

$A_{DefPA,i,t}$	The area of recorded deforestation in the project area has been considered appropriate. The verification team confirmed that the values were found to be determined correctly from remote sensing imagery by PRODES /12/.	RINA confirmed that the monitoring methods were followed as stated in section 4.2 of the registered VCS PD /35/.	Not applicable. Calculated parameter.
$A_{DefLB,i,t}$	The area of recorded deforestation in the leakage belt has been considered appropriate. The verification team confirmed that the values were found to be determined correctly from remote sensing imagery by PRODES /12/.	RINA confirmed that the monitoring methods were followed as stated in section 4.2 of the registered VCS PD /35/.	Not applicable. Calculated parameter.
$A_{RRL,forest,t}$	The remaining area of forest in RRL should be monitored at least every ten years for baseline renewal. Thus, it is not applicable since this parameter was evaluated during the validation process.	RINA confirmed that the monitoring methods were followed as stated in section 4.2 of the registered VCS PD /35/.	Not applicable.
A_{sp}	The area of sample plots should be monitored at least every ten years for baseline renewal.	RINA confirmed that the monitoring methods were followed as stated in section 4.2 of the	Not applicable.

	Thus, it is not applicable since this parameter was evaluated during the validation process.	registered VCS PD /35/.	
N	The number of sample plots should be monitored at least every ten years for baseline renewal. Thus, it is not applicable since this parameter was evaluated during the validation process.	RINA confirmed that the monitoring methods were followed as stated in section 4.2 of the registered VCS PD /35/.	Not applicable. Field measurements.
DBH	The diameter at breast height of a tree should be monitored at least every ten years for baseline renewal. Thus, it is not applicable since this parameter was evaluated during the validation process.	RINA confirmed that the monitoring methods were followed as stated in section 4.2 of the registered VCS PD /35/.	Not applicable. Field measurements.
H	The total height of tree should be monitored at least every ten years for baseline renewal. Thus, it is not applicable since this parameter was evaluated during the validation process.	RINA confirmed that the monitoring methods were followed as stated in section 4.2 of the registered VCS PD /35/.	Not applicable. Field measurements.
A _{DECKS,i,y}	The values of the area of logging decks in stratum were cross checked against the Annual Operational	RINA confirmed that the monitoring methods were followed as stated in section 4.2 of the	Not applicable. Field measurements.

	Plans of the Sustainable Management Plan /17/.	registered VCS PD /35/.	
$A_{ROAD,i,t}$	The values of the area of roads in stratum were cross checked against Annual Operational Plans of the Sustainable Management Plan /17/.	RINA confirmed that the monitoring methods were followed as stated in section 4.2 of the registered VCS PD /35/.	Not applicable. Field measurements.
L_{sk}	The length of skid trail was cross checked against Annual Operational Plans of the Sustainable Management Plan /17/.	RINA confirmed that the monitoring methods were followed as stated in section 4.2 of the registered VCS PD /35/.	Not applicable. Field measurements.
W_{SKID}	According to M-MON: Conservative estimate: Width edge of tires on largest skidder type * 140% can only be used where skidder type(s) is known and used to create all skid trails.	RINA confirmed that the monitoring methods were followed as stated in section 4.2 of the registered VCS PD /35/.	
A_i	The total area of stratum was verified against remote sensing imagery by PRODES /12/.	RINA confirmed that the monitoring methods were followed as stated in section 4.2 of the registered VCS PD /35/.	Not applicable. Calculated.
$V_{ex,i}$	The volume of timber extracted from within the stratum was cross	RINA confirmed that the monitoring methods were	Not applicable. Field measurements.

	checked against an official document from the State Environmental Secretary /64/.	followed as stated in section 4.2 of the registered VCS PD /35/.	
ABSL,PA,unplanned,t	The annual area of unplanned baseline deforestation in the project area has been cross checked against remote sensing imagery by PRODES /12/.	RINA confirmed that the monitoring methods were followed as stated in section 4.2 of the registered VCS PD /35/.	Not applicable. Field measurements.
CBSL,i	The carbon stock in all pools in the baseline has been correctly estimated from the project's forest carbon inventory. This parameter should be monitored at least every ten years for baseline renewal. Thus, it is not applicable since this parameter was evaluated during the validation process.	RINA confirmed that the monitoring methods were followed as stated in section 4.2 of the registered VCS PD /35/.	Not applicable. Field measurements.
CAB,tree,i	Carbon stock in aboveground biomass trees in the project case in stratum should be monitored at least every ten years for baseline renewal. Thus, it is not applicable since this parameter was	RINA confirmed that the monitoring methods were followed as stated in section 4.2 of the registered VCS PD /35/.	Not applicable. Field measurements.

	evaluated during the validation process.		
$C_{BB,tree,i}$	Carbon stock in belowground biomass trees in the project case in stratum should be monitored at least every ten years for baseline renewal. Thus, it is not applicable since this parameter was evaluated during the validation process.	RINA confirmed that the monitoring methods were followed as stated in section 4.2 of the registered VCS PD /35/.	Not applicable. Field measurements.
$C_{WP,i}$	Carbon stock in wood products in the project case in stratum was correctly determined based on the total area harvested per year.	RINA confirmed that the monitoring methods were followed as stated in section 4.2 of the registered VCS PD /35/.	Not applicable. Calculated.
$E_{BiomassBurn,i,t}$	Non-CO2 emissions due to biomass burning in stratum was correctly determined based on IPCC 2006 Inventory Guidelines and the area burnt for stratum.	RINA confirmed that the monitoring methods were followed as stated in section 4.2 of the registered VCS PD /35/.	Not applicable. Calculated.

During the remote audit, the verification team confirmed that large investments were done in policing the FSM /20/ and that the environmental monitoring program aims at involving communities in mapping the threatened areas; identifying the risks and threats to which these areas are subjected /19/.

4.5 Quality of Evidence to Determine GHG Emission Reductions and Removals

The evidences used to determine the GHG emission reductions and removals were sufficient in quantity and has appropriate quality. It was verified during the remote audit that data used for

calculations and to determine GHG emissions reductions and removals is consistent with those from the previous verification /37/ /38/ and thus calculations can be verified as accurate.

The methodology and corresponding monitoring module were correctly applied and no re-inventory of the project area was done every year since within the project area selective logging occurs through forest management that is also undergoing the FSC certification process.

PP has established management systems, monitoring procedures, outlines of roles and responsibilities and QA/QC procedures which ensure consistent data collection, recordation and storage /1/.

Implementation of these systems has been observed during the remote audit and actions are confirmed to be in accordance with the documented descriptions.

4.6 Non-Permanence Risk Analysis

A non-permanence risk analysis using the VCS AFOLU Non-Permanence Risk tool version 4.0 /28/ has been conducted by the project proponent. According to the analysis, the overall risk rating is 10%, which is 25.93% and 20% less than the project's risk rating from the previous verification report /38/ and validation report /36/, respectively. The previous reports applied version 3 of the VCS AFOLU Non-Permanence Risk tool. The risk rating has dropped as a result of a changes to the internal and natural risk ratings.

The verification team assessed each of the risks and scores given by PP against the AFOLU non-permanence risk tool and the below was found:

- 1) Project Management: -4 score is correct
 - a) Risk factor does not apply as the project activity does not involve plantation as seen during the remote audit in the satellite images /12/. Not applicable correctly applied.
 - b) Less than 50% of the carbon stocks are fragile to encroachment by outside actors and, therefore, need active protection. As seen in the remote audit that FSM farm performs an active monitoring of unplanned deforestation /15/. There are 7 fixed vigilance points which controls the entrances and boundaries of the farm. Score 0 correctly applied.
 - c) The verification team checked all the evidence cited in the VCS non-permanence risk report version 01 /3/ and also interviewed personnel working in the project and confirms any area of required experience is covered by at least one individual with at least 5 years experience in the area /43/-/51/ /65/ /66/. Score 0 correctly applied.
 - d) The verification team checked during remote audit that management team, responsible for reporting and responding to any events, such as unpermitted deforestation, degradation or unauthorized resource use, is located less than a day of travel from the Project site. The 7 bases are located within the project area /15/. Score 0 correctly applied.

- e) Management team includes individuals with significant experience in AFOLU project design and implementation, carbon accounting and reporting (eg, individuals who have successfully managed projects through validation, verification and issuance of GHG credits) under the VCS Program or other approved GHG programs /43/-/51/ /65/ /66/. This evidence is listed in item c) of the non- permanence risk report and has been checked by the verification team. Score - 2 correctly applied.
 - f) RINA checked the adaptative management plan /15/. In addition, SocialCarbon is in place and requires continuous monitoring and improvement. Score - 2 correctly applied.
- 2) Financial Viability: 0 score correctly given.
- a) Not applicable.
 - b) Not applicable.
 - c) Not applicable.
 - d) Verification team checked the information of the financial analysis included in the non-permanence risk report for the validation /36/ and confirmed that the breakeven would be reached in less than 4 years. Score 0 correctly applied.
 - e) Not applicable.
 - f) Not applicable.
 - g) Not applicable.
 - h) Score given 0. RINA checked the agreement between Ecológica Assessoria Ltda and Florestal Santa Maria Ltda /16/ and confirmed that project participants have secured more than 80% of funding needed to cover the total cash out due the project reached the breakeven in 2017 according to the provided cashflow.
 - i) Project does not have any available callable financial resources to cover at least 50% of total cash out before project reaches breakeven. Score – 0 correctly given.
- 3) Opportunity cost: - 4 score given.
- a) Not applicable.
 - b) Not applicable.
 - c) Not applicable.
 - d) Not applicable.
 - e) Not applicable.

- f) Score -4 correctly applied. Verification team checked the VCS PD /35/ and confirmed that NPV from the project activity is expected to be at least 50% more profitable than the most likely alternative land use activity (cattle ranching).
 - g) Not applicable.
 - h) Not applicable.
 - i) Score 0 correctly applied. Verification team checked the document registered at the 1st Notary Service and Real Estate Registry /4/ and confirmed that the project is protected by a legally binding agreement.
- 4) Project Longevity: 15 score correctly applied as evidenced by the legally binding agreement registered at the 1st Notary Service and Real Estate Registry /4/.
 - 5) Land Tenure: 0 score given as per evidences /5/-/8/. It was verified that there are no communities living within the project area and that FSM is the only owner of the property and it holds all the legal rights since 2005, including rights for using property resources. In addition, it was checked that there is no presence of indigenous communities within the FSM farm /14/. Thus, there are disputes over land tenure or ownership and over access/use rights.
 - 6) Community Engagement: - 5 score given as per evidences /12/ /18/ /19/ and remote audit. The communities located in the reference region have been consulted and to maintain land tenure and manage possible conflicts, PP's strategy is to promote benefits to the community, through the generation of jobs and to have a good relationship with it. Through the SocialCarbon implementation and FSC certification, the project generates net positive impacts on the social and economic well-being of the local communities.
 - 7) Political Risk: 0 score correctly applied according to evidence provided by PP at VCS non-permanence risk report itself, in the appropriate section /52/ /53/. Independent calculation of the governance score for Brazil is -0.18, which includes 2015 through 2019. The project area is located in the State of Mato Grosso and the state/jurisdiction participate in the Governors' Climate and Forest Taskforce.
 - 8) Natural Risk – Fire: It was demonstrated to the audit team that 107 fire outbreaks were identified within the project's area during the period from 2012 to 2019 /54/ /56/ where 59 were considered high risk as evidenced by INPE satellite images and records of fire outbreaks /55/. Score 2 correctly applied.
 - 9) Natural Risk – Pest and Disease outbreaks: It was communicated to the audit team and confirmed based on professional experience that there was no record of any pest and disease outbreak in the project area since the area is covered by 100% Amazon Rainforest, i.e., "natural forests" /72/. Score 0 correctly applied.

- 10) Natural Risk – Extreme Weather: The VVB team has confirmed through a review of the reference indicated in the risk report /57/-/60/, that the frequency of recurrence of large blowdowns in the region of the project area is very low. Score 1 correctly applied.
- 11) Natural Risk – Geological Risk: The VVB team has confirmed through a review of the reference indicated in the risk report /61/-/63/, that there are no geological events damaging the project site. Score 0 correctly applied.
- 12) Natural Risk – Other Natural Risk: No other sources of natural risk were identified in interview or literature sources. Score 0 correctly applied.

5 VERIFICATION CONCLUSION

RINA Services S.p.A. (RINA) has performed verification of the emission reductions reported for the project activity “Florestal Santa Maria Project” in Brazil, for the VCS monitoring period from 04 May 2012 to 12 April 2019, with regard to the relevant requirements for VCS rules.

It is the responsibility of RINA to express an independent verification opinion about the project’s conformity with the VCS requirements and procedures and on the reported greenhouse gas emission reductions from the project.

Based on documented evidence and corroborated by a remote site assessment RINA can confirm that:

- The project has been implemented and operated as per the registered VCS PD;
- The monitoring plan in the registered VCS-PD is as per the applied baseline and monitoring methodology.
- The monitoring report and other supporting documents provided are complete and verifiable and in accordance with the applicable VCS requirements.

It is RINA’s opinion that the GHG emission reduction stated in the VCS monitoring report version 3 of 04 March 2021 for the “Florestal Santa Maria Project” in Brazil for the period 04 May 2012 to 12 April 2019 are fairly stated. The GHG emission reductions were calculated correctly on the basis of the baseline and monitoring methodology VCS VM0007 “REDD+ Methodology Framework (REDD-MF)” version 1.5 of 09 March 2015.

RINA is able to certify that the emission reductions from the “Florestal Santa Maria Project” during the period 04 May 2012 to 12 April 2019 amount to 6,076,632 tonnes of CO₂ equivalent, detailed as below.

Verification period: From 04 May 2012 to 12 April 2019

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

Year	Baseline emissions or removals (tCO ₂ e)	Project emissions or removals (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Net GHG emission reductions or removals (tCO ₂ e)	Buffer pool allocation	VCUs eligible for issuance
2012	676,505	0	6,811	669,694	64,771	604,923
2013	1,023,144	4,975	10,297	1,007,872	97,461	910,410
2014	1,023,144	43,686	10,297	969,161	93,590	875,570
2015	1,023,144	128,815	10,297	884,032	85,077	798,955
2016	1,023,144	146,715	10,302	866,127	83,287	782,839
2017	1,023,144	0	10,297	1,012,847	97,959	914,888
2018	1,023,144	0	567,889	455,255	97,959	357,295
2019	285,920	0	74,276	211,643	27,375	184,268
Total	7,101,290	324,192	700,466	6,076,632	647,480	5,429,148

APPENDIX 1: ABBREVIATIONS

Abbreviations	Full texts
AFLOU	Agriculture Forestry and Other Land Use
AUD	Avoided Unplanned Deforestation
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CER(s)	Certified Emission Reduction(s)
CL	Clarification Request
CR	Clarification Request
CO ₂	Carbon dioxide
CO ₂ e	Carbon dioxide equivalent
DOE	Designated Operational Entity
FAR	Forward Action Request
FSC	Forest Stewardship Council
GHG(s)	Greenhouse gas(es)
LU/LC	Land-Use/Land-Cover
MR	Monitoring Report
PD	Project Description
PP(s)	Project Proponent(s)
REDD	Reducing Emissions Deforestation and Degradation
Ref.	Document Reference
RINA	RINA Services Spa
SEMA	Environmental Secretary of Mato Grosso State
SS(s)	Sectoral Scope(s)
TA(s)	Technical Area(s)
UNFCCC	United Nations Framework Convention on Climate Change
VCS	Verified Carbon Standard
VCU	Verified Carbon Unit
VER	Voluntary Emission Reductions
VVB	Validation and Validation Board
VVS	Validation and Validation Standard

APPENDIX 2: LIST OF FINDINGS

Table 1: CARs from this validation/verification

Corrective action requests	Response by project participants	Validation/Verification conclusion
CAR 01 Section 1.1 of the MR should not be more than one page. Moreover, the section is not transparent on the total GHG emission reductions or removals generated in this monitoring period, which is a requirement as per the VCS-Monitoring report template, v 4.0.	Section 1.1 of the MR has been updated to be summarized in one page. Moreover, the total GHG emission reductions claimed in this monitoring period have been clearly informed, as well as the number of hectares of deforestation avoidance.	RINA verified the revised MR and confirmed that section 1.1 is now according to the VCS-Monitoring report template, v 4.0. This CAR is closed.
CAR 02 As per VCS Monitoring Report template, section 3.2.1 should describe and justify any methodology deviations applied during this monitoring period and clarify if the same deviations referred in the previous monitoring period are still applicable because it is noticed that for calculating PROPIMM, the local data available from IBGE is used only until 2017. However, the Monitoring period continues until 2019.	Section 3.2.1 has been updated in a way it explains the exact method for estimating the annual number of immigrants in Colniza from 2012 and 2019. The spreadsheet has been updated with the same official data from IBGE and DataSus for the entire monitoring period.	Section 3.2.1 of the MR was correctly revised and the methodology deviation applied during this monitoring period was clearly described. RINA checked the evidences provided by PP. This CAR is closed.
CAR 03 Identify whether the deviation impacts the applicability of the methodology, additionality or the appropriateness of the baseline scenario and provide an explanation of the outcome. Further the project description	Section 3.2.2 has been updated to clarify the exact areas excluded from the FSM farm for the First and Second Monitoring Periods. Further, the spreadsheet now presents two tables referencing the total areas deducted from the PA for both	The revised MR and excel spreadsheet were verified. For the first MP, it is excluded from UPA 23 and 24, which results to an area of 8267.1 and for the 2nd MP it is from UPA 25, which results to 5410.6. Shape and maps of the non-FSC

deviation is not transparent on the exact areas excluded from the FSM farm from 13/04/2009 to 31/12/2011.	monitoring periods. The project team is also providing the folders with shapefiles, maps and quantification of non-FSC harvested areas for both periods.	harvested areas checked and the same was found to be appropriate. It is also clarified and accepted by the verification team that the change in the area of stratum will not impact the applicability of the methodology, additionality and the baseline scenario. This CAR is closed.
CAR 04 Local stakeholders' consultation in the MR is not discussed as per the requirements of the MR template section 2.2.	The section was supplemented with additional information to comply with the Monitoring Report template guidelines.	RINA verified the revised MR and confirmed that local stakeholders' consultation was correctly discussed. This CAR is closed.
CAR 05 As per VCS Monitoring Report template, section 2.3 should provide details on the following issues: - Activities implemented by the project proponent to mitigate risks local stakeholders due to project implementation. - Any updates to the property and land use rights of the local stakeholders and the evidence provided that the project has not negatively impacted such rights without first obtaining the free, prior and informed consent of the affected parties, and provided just	In order to fulfill all the requirements of this section, it was decided to clarify the subtopics present in the VCS Standard Version 4, section 3.16. In this way, it was possible to describe in more detail each aspect of the project activities in relation to safeguards for AFOLU projects.	Section 2.3 of the MR was correctly revised. The identification of the local stakeholders was done through a research and social activities developed by FSM. The land belongs to and owned by FSM and there are no communities residing in the project area. During the remote audit, the verification team interviewed some stakeholders and all of them were of positive opinion. The stakeholders interviewed confirmed that FSM has processes to communicate and consult the local stakeholders. This CAR is closed.

and fair compensation if done so. The processes used by the project proponent 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.		
CAR 06 1.Regarding to location analysis, the following issues were identified: - The calculation of the total area per stratum is not transparent in the excel spreadsheet. - PP is requested to clearly describe in the MR why the annual baseline deforestation for the project area is not calculated for very high risk. As per the registered VCS PD, it includes both very high risk and high risk. - Under the “Annual baseline deforestation for the Project Area” for each stratum identified, why the	In order to better clarify the calculation methods, the following measures were taken in the spreadsheet: 1) The non-FSC areas deducted from each stratum and deforestation risk class have been clearly presented in two tables, starting at line 17 of “Location Analysis” sheet. 2) The project calculations have been designed to project deforestation firstly in all “Very High” risk deforestation areas, followed by “High” risk areas, and so on. The current total “Very High” risk area in the PA is 22,509.1 hectares, from which 5,549.98 hectares have been projected to be deforested in the First	The following were verified: 1.Regarding to location analysis, the following issues were identified: - The calculation of the total area per stratum is now transparent in the excel spreadsheet. - It is clearly described in the MR why the annual baseline deforestation for the project area is calculated for very high risk. - RINA confirmed that column H represents the sum

high-risk area is divided by H4. Whereas H4 doesn't represent any value. The same is done with other stratus too. 2. Regarding to project emissions from logging gap, the following issues were identified: • Explain why the total area harvested for the year 2012 was considered in the calculation since the FSM certification is valid between 07 March 2013 and 31 March 2017. • PP is requested to explain the different values applied between registered VCS PD and emission reduction calculations for the logging damage factor. 3. Regarding to leakage outside, PP is requested to review the values for births and deaths in order to apply the same reference.	Monitoring Period. For the current monitoring period, 12,841.24 hectares have been projected for deforestation in PA. Thus, there are still 4,117.8 hectares to be deforested in the "Very High" risk areas, prior to beginning the projected deforestation in "High" risk areas. This explanation has been added in Section 3.2.2. 3) Column H represents de sum of each deforestation risk classification, considering all forest strata. The numbers were in white color to facilitate edition: these numbers are now colored in black to visualization. 4) In the spreadsheet, the Location Analysis considered the exclusion of non-FSC areas harvested in 2012 (corresponding to UPA 25, "Very High" deforestation risk areas). In addition, the emissions corresponding to that UPA have been set as zero. 5) The logging damage factor used has been set as 0.67 tC/m3, being the most conservative default value, proposed in M-MON v2.1. This was also the most conservative value for logging damage factor in the VCS-	of each deforestation risk classification, considering all forest strata. The numbers were in white color to facilitate edition: these numbers are now colored in black to visualization. 2. Regarding to project emissions from logging gap, the following issues were identified: • The verification team checked that the total area harvested for the year 2012 was not considered in the calculation since the FSM certification is valid between 07 March 2013 and 31 March 2017. • PP revised the emission reduction calculation and applied the value of the registered VCS PD for the logging damage factor. 3. Regarding to leakage outside, RINA cross checked the reviewed values for births and deaths.
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	PD. This explanation has been added in Section 3.2.2. 6) The official values of births and deaths have been updated in the spreadsheet, to consider only one official source of information (DataSus) from 2012 to 2019.	However, the value of deaths in 2012 is not correct as per evidence presented. This CAR is open.
CAR 06 (Cont.) The following were verified: 1.Regarding to location analysis, the following issues were identified: • The calculation of the total area per stratum is now transparent in the excel spreadsheet. • It is clearly described in the MR why the annual baseline deforestation for the project area is calculated for very high risk. • RINA confirmed that column H represents the sum of each deforestation risk classification, considering all forest strata. The numbers were in white color to facilitate edition: these numbers are now colored in black to visualization. 2. Regarding to project emissions from logging gap, the following issues were identified:	In the new version of the “MR2_SPREADSHEET_04_03_2021”, the value of deaths in 2012 for Colniza has been corrected. A print of the screen of DataSus database has been provided in folder “CAR06_second”, showing the correct value, which has been inserted in the spreadsheet.	Regarding to leakage outside, RINA cross checked the reviewed value for deaths in 2012 and confirmed that is correct as per evidence presented. This CAR is closed.

• The verification team checked that the total area harvested for the year 2012 was not considered in the calculation since the FSM certification is valid between 07 March 2013 and 31 March 2017. • PP revised the emission reduction calculation and applied the value of the registered VCS PD for the logging damage factor. 3. Regarding to leakage outside, RINA cross checked the reviewed values for births and deaths. However, the value of deaths in 2012 is not correct as per evidence presented. This CAR is open.		
CAR 07 Regarding to forest cover monitoring maps, PP is requested to provide satellite imagery analysis conclusion with accuracy assessment reports. PP is also requested to provide the land use classification maps of the entire areas, which also covers the reference area and leakage belt. PP is also requested to explain the forest and non-forest classes to identify the deforestation in the project area and leakage belt that have occurred in this verification timeline. Moreover, how the accuracy assessment of the maps was derived needs to be made	According to the methodology, 'STEP 1. Selection and analyses of sources of land-use and land-cover (LU/LC) change data', the requirement is "medium resolution remotely sensed spatial data shall be used (30m x 30m resolution or less, such as Landsat, Resourcesat-1 or Spot sensor data). Thus, the images used in this monitoring period meet the methodology requirements. The methodology also mentions that data collected and analyzed must cover: i)	The Land cover / land use analysis followed the methodology which was presented in the baseline. As per the Methodology, The Satellite Imagery Minimum spatial resolution is mentioned as 30 m. For this time, Landsat 8 (Operational Land Imager (OLI) and the Thermal Infrared Sensor (TIRS). These two sensors provide seasonal coverage of the global landmass at a spatial resolution of 30 meters (visible, NIR, SWIR)) Images was used for the

transparent in the MR and also if the images used are the same used in the baseline.	The entire project area: data shall be available for the year in which monitoring and verification is occurring; ii) The entire leakage belt, where required: data shall be available for the year in which monitoring and verification is occurring. This requirement is met by shapefiles available to the audit team. PRODES data used in monitoring of deforestation are publicly available, as well as the methods used to obtain them and their accuracy. Also according to the methodology: a) At the end of each monitoring period: Calculate the area of each category within the project area and, where required, the leakage belt; Update the Forest Cover Benchmark Maps for the project area and leakage belt; Update the remaining area of forest in RRL. The raster images are updated to the last year of verification.	classification, which is also 30 m spatial resolution. Furthermore, the selected images are captured in July 2019, which is dry season of the project area and less cloud cover is avoiding the extrapolation due to these factors, the accuracy of the Analysis is maintained as per the methodology. This CAR is closed.
CAR 08 Regarding to monitoring of the actual carbon stock changes and greenhouse gas emissions, the following issues were identified: The MR states large investments done in policing the FSM. PP is requested to provide records for the same.	- To attest the investments done by the PP in the Project Area, a worksheet describing the cashflow of FSM has been presented, including policing expenses. - The PP is providing a series of evidences of training courses, as well as the	The following were verified: - PP provided a spreadsheet and evidences of the investment in policing the FSM. - PP provided the contract signed for the training of the community and also

- The MR states that the environmental monitoring program aims at involving communities in mapping the threatened areas; identifying the risks and threats to which these areas are subjected. PP is requested to provide evidences for the same. - PP is requested to provide a valid Environmental license and the AUTEX for the UPAs exploited during the monitoring period.	attempt of a program to promote better mobility for neighbors by means of subsidizing them in obtaining their driver's license. 3) All the AUTEX covering this monitoring period have been provided to the audit team.	provided the list of presence in the courses and some photos. PP provided the AUTEX for the hole monitoring period. Regarding to the environmental license, it is no more necessary to have this license for Forest Sustainable Management projects according to SEMA. This CAR is closed.
CAR 09 Regarding to the monitoring plan, the following issues were identified: - Clarify if there is any change in the organization chart from the registered VCS PD. In addition, information regarding roles, responsibilities and competencies should be clearly described. - Methods for generating, recording, aggregating, collating and reporting data should be clearly described. - Procedures for handling internal auditing and non - conformities: though the MR states it is established by the operational board of FSM, the same is not clearly described. - No information regarding data management and archiving was provided.	The section 4.3 of the MR – Monitoring Plan – was better described with more information about: a) Methods for generating, recording, aggregating, collating and reporting data; b) Organizational structure, responsibilities and competencies; c) Procedures for handling internal auditing and non-conformities; and d) Quality assurance/ quality control. Furthermore, the evidences of trainings conducted by FSM will be made available to the VVB team.	The following were verified: - PP clarified the information regarding roles, responsibilities and competencies in the revised MR. - Methods for generating, recording, aggregating, collating and reporting data were clearly described in the revised MR. - The revised MR clearly described the procedures for handling internal auditing and non - conformities established by the operational board of FSM. - Information regarding data management and archiving was provided in the revised MR.

Provide records of trainings conducted, if any.		The records of trainings conducted were provided. This CAR is closed.
CAR 10 Regarding to the non-permanence risk analysis: 1. Project Management: c) During the remote audit, it was verified that the management team listed is not correct and should be updated. 2. Financial Viability: No information was provided for the risk factor i. 3. Opportunity cost: i) Information should be revised in the report since the enrolment number and the area changed. 4. Land Tenure: PP is requested to explain how it was considered that there are no disputes over the land tenure. PP is requested to demonstrate that there are no disputes over access/use rights. Moreover, PP is requested to explain why the risk rating applied for the risk factor f in the report is not the same applied in the excel sheet. 5. Political Risk: The values provide in the table are not according to the evidence mentioned. In addition, PP is	The non-permanence risk report was corrected: 1. The project management team was updated; 2. More information was provided for the financial viability – risk factor i); 3. The enrolment number and area were updated for the risks: opportunity cost and project longevity; 4. More information was provided on the land tenure and resource access/impacts risk factor; 5. The political risk was corrected, showing the mean of the 6 World Bank Institute Worldwide Governance Indicators for Brazil across the most recent five years of available data (between 2015 – 2019). 6. The fire outbreaks in the municipality of Colniza and within the project area during the monitoring period was corrected. The evidence will be made available to the VVB team. In addition, more information was provided on firefighting trainings provided by FSM to its employees.	Regarding to the non-permanence risk analysis the following were verified: 1. Project Management: c) The management team listed was correctly revised. However, PP is requested to provide the CV of Marcelo Martins, Lunardelli, Sebastião Carvalho Vilas Boas and Antonio Martins Lima Filho. 2. Financial Viability: Information was provided for the risk factor i. 3. Opportunity cost: i) Information was correctly revised in the report according to the evidence provided during the remote audit. 4. Land Tenure: PP explained that FSM is the only owner of the property and it holds all the legal rights since 2005, including rights for using property resources. Thus, it was considered that there are no disputes over the land tenure and no disputes over access/use rights.

requested to demonstrate the determination of the value -0.18. 6. Natural Risk – Fire: The information about fire outbreaks stated in the monitoring report is not according to the evidence provided during the remote audit. It is stated in the report that according to INPE sources, the project area is within a minimal-low fire risk. PP is requested to explain the methodology used to determine minimal-low fire risk. In addition, PP is requested to explain why no measures are taken for addressing this matter.	Furthermore, the risk scores in the excel spreadsheet were corrected according to the non-permanence risk report.	Moreover, the risk rating applied for the risk factor f in the report was corrected and is the same applied in the excel sheet. 5. Political Risk: The values provide in the table were revised and are according to the evidence mentioned. Moreover, RINA checked the spreadsheet provided by PP in order to demonstrate the determination of the value - 0.18. 6. Natural Risk – Fire: The information about fire outbreaks stated in the monitoring report was revised according to the evidence provided during the remote audit. In addition, PP explained the methodology used to determine the fire risk calculation. The measures taken for addressing this matter were described in the report. This CAR is open.
CAR 10 (Cont.) Regarding to the non-permanence risk analysis the following were verified: 1. Project Management:	The project management team was corrected in the non-permanence risk report, section 1. Project Management. Marcelo Martins Lunardelli, Sebastião Carvalho Vilas	RINA verified that the management team was correctly revised in the non-permanence risk report. This CAR is closed.

c) The management team listed was correctly revised. However, PP is requested to provide the CV of Marcelo Martins, Lunardelli, Sebastião Carvalho Vilas Boas and Antonio Martins Lima Filho. 2. Financial Viability: Information was provided for the risk factor i. 3. Opportunity cost: i) Information was correctly revised in the report according to the evidence provided during the remote audit. 4. Land Tenure: PP explained that FSM is the only owner of the property and it holds all the legal rights since 2005, including rights for using property resources. Thus, it was considered that there are no disputes over the land tenure and no disputes over access/use rights. Moreover, the risk rating applied for the risk factor f in the report was corrected and is the same applied in the excel sheet. 5. Political Risk: The values provide in the table were revised and are according to the evidence mentioned. Moreover, RINA checked the spreadsheet provided by PP in order to demonstrate the determination of the value -0.18. 6. Natural Risk – Fire:	Boas and Antonio Martins Lima Filho were removed from the management team during the 2nd monitoring period of this project activity.	
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The information about fire outbreaks stated in the monitoring report was revised according to the evidence provided during the remote audit. In addition, PP explained the methodology used to determine the fire risk calculation. The measures taken for addressing this matter were described in the report. This CAR is open.		
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Table 2: CLs from this validation/verification

Clarification requests	Response by project participants	Validation/Verification conclusion
CL 1 It is stated in section 2.1 of MR, that FSM established procedures to monitor and report on environmental or socioeconomic impacts from its forest operations throughout the entire monitoring period. In addition, it is also mentioned that there are some measures that were planned by FSM to mitigate the risk. PP is requested to explain how these impacts are monitored and provide evidence for the indicators monitored via biodiversity resource and human resource.	A table has been included in the report (Table 2) containing the monitoring methods of the SOCIALCARBON indicators, which will evaluate each year-point the social and environmental advances and improvements promoted by the project.	Section 2.1 of the MR was revised in order to explain how the impacts are monitored. The information included refers to the SocialCarbon indicator. For more information, please, refers to the SocialCarbon report. This CL is closed.
CL 02 1. PP is requested to clarify the difference between the baseline average deforestation	1) During the development of the spreadsheet for calculations in this Monitoring Report, the project team has noted a mistake in calculation	1. The difference between the baseline average deforestation rate from (1999 to 2010) values calculated in the VCS PD and

rate from (1999 to 2010) values calculated in the VCS PD and the emission reduction spreadsheet. 2. PP is requested to clarify the different value applied for the fraction of wood products that will be emitted to the atmosphere between 5 and 100 years of timber harvest by class of wood product between registered PD and excel spreadsheet. 3. Regarding to leakage Market, PP is requested to clarify the difference in the value of leakage factor for market-effects calculations adopted between registered VCS PD and MR.	the annual increase in deforestation in the Reference Region: although the satellite images has different periods (e.g. 2 years), the increase in deforestation observed between images had been systematically divided by 3 (i.e. as it had 3 years of time between each image). This mistake has been corrected in the present Monitoring Report, by dividing the deforestation increase by the exact period of time between two subsequent satellite images. Moreover, the deforestation rate has been decreased inside the Project Area, due to deduction of areas harvested without FSC certification during the monitoring period. (There is a text explaining it in Section 3.2.2.) 2) During development of this Monitoring Report, the project team noted that the sum of parameters SLF_{ty} (Fraction of wood products that will be emitted to the atmosphere within 5 years of timber harvest by class of wood product ty; dimensionless) and OF_{ty} (Fraction of wood products that will be emitted to the atmosphere between 5 and 100 years of timber harvest by class of wood product ty; dimensionless) could not be more than 1 (i.e. 100%). In this	the emission reduction spreadsheet were explained. RINA verified the revised MR and emission reduction spreadsheet and confirmed that baseline average deforestation rate was correctly determined. 2. PP clarified in the revised MR the different value applied for the fraction of wood products that will be emitted to the atmosphere between 5 and 100 years of timber harvest by class of wood product between registered PD and excel spreadsheet. 3. Regarding to leakage Market, PP revised the MR and clarified the difference in the value of leakage factor for market-effects calculations adopted between registered VCS PD and MR. This CL is closed.
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	case, given that SLFty is indicated to be 0.2 for sawnwood (default value, according to VCS Module VMD0005 REDD Methodological Module: Estimation Of Carbon Stocks In The Long-Term Wood Products Pool (CP-W)), thus OFty has been adjusted to 0.8 (current Monitoring Report), instead of 0.84 (VCS-PD). (This text has been added to 3.2.2.) 3) The explanation found in MR1 has been replicated in MR2 (Section 3.2.2): The deduction factor (LFME) was adopted as 0.2, based on the fact that the forest biomass is considered to be less in Project Area than in the average of Amazon Biome. It is important to consider that the Market Leakage is not calculated only for the Reference Area, but for all Amazon Biome. The scientific literature demonstrates that the forest occurring inside the FSM region has less biomass than that observed in the average of Amazon Biome. Thus, it is expected that the areas to be deforested in the Amazon Biome in the project case, as a result of project leakage, are less than those that would be observed in the project area.	
CL 03	The following text has been added to Section 3.2.2 of MR:	RINA verified that the difference in the monitoring

Regarding to remaining area of forest in RRL, PP is requested to clarify the inconsistency between the monitoring frequency stated in the registered VCS PD and in the MR.	During development of this Monitoring Report, the project team has noted a mistake in the frequency of monitoring / recording of ARRL,forest,t (Remaining area of forest in RRL at time t), which was set to 5 years in the First Monitoring Report and VCS-PD. The frequency has then been corrected to every 10 years, since it is only applicable to the baseline renewal.	frequency was included in the project description deviations section. This CL is closed.
CL 04 Regarding to the non-permanence risk analysis: 1. Project Management: b) PP is requested to clearly explain what is the status of ongoing enforcement, what are the reasons of encroachment and how the jobs created can avoid this. In addition, evidences of the same should be provided. 2. Community Engagement: PP is requested to explain why the risk rating applied for the risk factor b in the report is not the same applied in the excel sheet. 3. Natural Risk – Pest and Disease outbreaks: PP is requested to explain how was concluded that there was no record of any pest and	The non-permanence risk report and excel spreadsheet were corrected. 1. The status of the ongoing enforcement was described in the project management risk. The corresponding evidences will be made available to the VVB team; 2. The score risk in the excel spreadsheet was corrected according to the report; 3. More information was provided about pest and diseases outbreaks in old-growth natural forest.	Regarding to the non-permanence risk analysis, the following were verified: 1. Project Management: b) PP clearly explain what is the status of ongoing enforcement, what are the reasons of encroachment and how the jobs created can avoid this. In addition, evidences were provided. 2. Community Engagement: The risk rating applied for the excel sheet was revised and the risk factor b in the report is the same applied in the excel sheet. 3. Natural Risk – Pest and Disease outbreaks: PP explained in the revised report how was concluded that there was no record of any pest and disease outbreak in the project area.

disease outbreak in the project area.		This CL is closed.
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Table 3: FARs from this validation/verification

Forward action requests	Response by project participants	Validation/Verification conclusion
FAR 1		



CERTIFICATO DI QUALIFICA PER GLI SCHEMI VOLONTARI*
QUALIFICATION CERTIFICATE FOR VOLUNTARY SCHEMES*

Si attesta che il sig./sig.ra:
We declare that Mr/Mrs/Ms:

Geisa Maria Principe Branco Suettoni

è qualificato come:
is qualified as:

TEC, VAL, VER, TL, ITRP

per le seguenti aree tecniche:
for the following technical areas:

AREE TECNICHE TECHNICAL AREAS	DESCRIZIONE DELL'AREA TECNICA TECHNICAL AREA DESCRIPTION	SCOPO SETTORIALE SECTORAL SCOPE
1.1	Thermal energy generation	1
1.2	Renewables	1
13.1	Solid waste and wastewater	13

REVISIONE REVISION	DATA DATE	MOTIVAZIONI PER LA REVISIONE REASON FOR THE REVISION
0	19/07/2016	First issue with new template (this certificate is linked to CDM qualification)

Responsabile di schema
Scheme Leader
Rita Valoroso



*SCHEMI VOLONTARI/ VOLUNTARY SCHEMES: ACR: American Carbon Registry, CCB: The Climate, Community & Biodiversity Alliance, GS: Gold Standard, JI: Joint Implementation, SCS: Social Carbon Standard, VCS: Verified Carbon Standard.

TEC: Technical expert; VAL: Validator; VER: Verifier; TL: Team leader; FIN EXP: Financial Expert; ITRP: Independent technical reviewer

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RINA Services S.p.A. is accredited /recognized by

UNPCOC	quali Entità Operativa Designata (DOE), per condurre la Validazione e la Verifica di Progetti CDM as Designated Operational Entity (DOE), to carry out Validation and Verification of CDM Projects
VCSA	per condurre la Validazione e la Verifica di Progetti VCS to carry out Validation and Verification of VCS Projects
GS Foundation	per condurre la Validazione e la Verifica di Progetti GS to carry out Validation and Verification of GS Projects
Ecologica Institute	per condurre la Validazione e la Verifica di rapporti SCS to carry out Validation and Verification of SCS Reports
American Carbon Registry ACR	per condurre la Validazione e la Verifica di Progetti ACR to carry out Validation and Verification of ACR projects
The Climate, Community & Biodiversity Alliance CCB	per condurre la Validazione e la Verifica di Progetti co-benefit CCB to carry out Validation and Verification of co-benefit CCB projects



CERTIFICATO DI QUALIFICA PER GLI SCHEMI VOLONTARI*
QUALIFICATION CERTIFICATE FOR VOLUNTARY SCHEMES*

Si attesta che il sig./sig.ra:
 We declare that Mr/Mrs/Ms:

Vinay SINGH

è qualificato come:
 is qualified as:

TEC, VAL, VER

per le seguenti aree tecniche:
 for the following technical areas:

1.2, 14.1

AREE TECNICHE TECHNICAL AREAS	DESCRIZIONE DELL'AREA TECNICA TECHNICAL AREA DESCRIPTION	SCOPO SETTORIALE SECTORAL SCOPE
1.2	Renewables	1
14.1	Forestry	14

REVISIONE REVISION	DATA DATE	MOTIVAZIONI PER LA REVISIONE REASON FOR THE REVISION
0	09/09/2020	First issue

Il Resp. CEINS
 Head of CEINS

*SCHEMI VOLONTARI/ VOLUNTARY SCHEMES: ACR American Carbon Registry, CCB The Climate, Community & Biodiversity Alliance, GS Gold Standard, JI Joint Implementation, SCS Social Carbon Standard, VCS Verified Carbon Standard.

TEC: Technical expert; VAL: Validator; VER: Verifier; TL: Team leader; FIN EXP: Financial Expert; ITRP: Independent technical reviewer

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UNFCCC	quale Entità Operativa Designata (DOE), per condurre la Validazione e la Verifica di Progetti CDM as Designated Operational Entity (DOE), to carry out Validation and Verification of CDM Projects
VCBA	per condurre la Validazione e la Verifica di Progetti VCS to carry out Validation and Verification of VCS Projects
GS Foundation	per condurre la Validazione e la Verifica di Progetti GS to carry out Validation and Verification of GS Projects
Ecologica Institute	per condurre la Validazione e la Verifica di rapporti SCS to carry out Validation and Verification of SCS Reports
American Carbon Registry ACR	per condurre la Validazione e la Verifica di Progetti ACR to carry out Validation and Verification of ACR projects
The Climate, Community & Biodiversity Alliance CCB	per condurre la Validazione e la Verifica di Progetti co-benefit CCB to carry out Validation and Verification of co-benefit CCB projects



CERTIFICATO DI QUALIFICA PER GLI SCHEMI VOLONTARI*
QUALIFICATION CERTIFICATE FOR VOLUNTARY SCHEMES*

Si attesta che il sig./sig.ra:
 We declare that Mr/Mrs/Ms:

Rekha Menon

è qualificato come:
 is qualified as:

TEC, VAL, VER, TL, ITRP

per le seguenti aree tecniche:
 for the following technical areas:

AREE TECNICHE TECHNICAL AREAS	DESCRIZIONE DELL'AREA TECNICA TECHNICAL AREA DESCRIPTION	SCOPO SETTORIALE SECTORAL SCOPE
1.2	Renewables	1
2.1	Electricity distribution	2
13.1	Solid waste and wastewater	13
13.2	Manure	13
14.1	Afforestation and reforestation	14

REVISIONE REVISION	DATA DATE	MOTIVAZIONI PER LA REVISIONE REASON FOR THE REVISION
0	19/07/2016	First issue with new template (this certificate is linked to CDM qualification)

Responsabile di schema
 Scheme Leader
 Rita Valoroso

*SCHEMI VOLONTARI/ VOLUNTARY SCHEMES: ACR American Carbon Registry, CCB The Climate, Community & Biodiversity Alliance, GS Gold Standard, JI Joint Implementation, SCS Social Carbon Standard, VCS Verified Carbon Standard.

TEC: Technical expert; VAL: Validator; VER: Verifier; TL: Team leader; FIN EXP: Financial Expert; ITRP: Independent technical reviewer

RINA Services S.p.A. è accreditato/riconosciuto da

RINA Services S.p.A. is accredited /recognized by

UNFOCC	quali Entità Operativa Designata (DOE), per condurre la Validazione e la Verifica di Progetti CDM as Designated Operational Entity (DOE), to carry out Validation and Verification of CDM Projects
VCSA	per condurre la Validazione e la Verifica di Progetti VCS to carry out Validation and Verification of VCS Projects
GS Foundation	per condurre la Validazione e la Verifica di Progetti GS to carry out Validation and Verification of GS Projects
Ecologica Institute	per condurre la Validazione e la Verifica di rapporti SCS to carry out Validation and Verification of SCS Reports
American Carbon Registry ACR	per condurre la Validazione e la Verifica di Progetti ACR to carry out Validation and Verification of ACR projects
The Climate, Community & Biodiversity Alliance CCB	per condurre la Validazione e la Verifica di Progetti co-benefit CCB to carry out Validation and Verification of co-benefit CCB projects



CERTIFICATO DI QUALIFICA QUALIFICATION CERTIFICATE

Si attesta che il sig./sig.ra:
We declare that Mr/Mrs/Ms:

Andrea LEIROZ

è qualificato come¹:
is qualified as:

TEC, VAL, VER, TEC

per le seguenti aree tecniche:
for the following technical areas:

AREE TECNICHE TECHNICAL AREAS	DESCRIZIONE DELL'AREA TECNICA TECHNICAL AREA DESCRIPTION	SCOPO SETTORIALE SECTORAL SCOPE
1.1	Thermal Energy Generation	1
1.2	Renewables	1
5.1	Chemical industry	5
13.1	Solid waste and wastewater	13
13.2	Manure	13

in accordo alle istruzioni dell'unità Sostenibilità & Cambiamenti Climatici.
in accordance with the instructions of the Sustainability & Climate Change Unit.

REVISIONE REVISION	DATA DATE	MOTIVAZIONI PER LA REVISIONE REASON FOR THE REVISION
0	17/09/2019	First issue with new template (this certificate is linked to CDM qualification)

Il Resp. CCPLS
Head of CCPLS
Laura SEVERINO



¹ Legend:

VAL: Validator
VER: Verifier
TEC: Technical Expert
TL: Team Leader
FIN-EXP: Financial Expert
DET: Determiner

CDM: Clean Development Mechanism
VCS: Verified Carbon Standard
GS4GG: Gold Standard For Global Goals
SCS: SocialCarbon Standard
JI: Joint Implementation

RINA Services S.p.A. è accreditato da UNFCCC, quale Entità Operativa Designata (DOE), per condurre la Validazione e la Verifica di Progetti CDM, da VCSA per condurre la Validazione e la Verifica di Progetti VCS, da GS Foundation, per condurre la Validazione e la Verifica di Progetti GS, da Ecologica Institute per condurre la Validazione e la Verifica di rapporti SCS

RINA Services S.p.A. is accredited by the UNFCCC, as Designated Operational Entity (DOE), to carry out Validation and Verification of CDM Projects, by the VCSA, to carry out Validation and Verification of VCS Projects, by the GS Foundation, to carry out Validation and Verification of GS4GG Projects and by the Ecologica Institute, to carry out Validation and Verification of SCS Reports

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