

# VERIFICATION REPORT FOR THE JARI/AMAPÁ REDD+ PROJECT

## **DNV·GL**

## Document Prepared By DNV (USA) Inc

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### **Summary:**

Det Norske Veritas (U.S.A.), Inc. of DNV·GL (DNV·GL) has performed a verification of the project activity "Jari/Amapá REDD+ Project" in the state of Amapá, Brazil. The verification was performed on the basis of VCS criteria as well as criteria given to provide for consistent project operations, monitoring and reporting.

Verification is the periodic independent review and *ex-post* determination by an accredited verification body (VB) of the monitored reductions in greenhouse gas (GHG) emissions that have occurred as a result of the registered VCS project activity during a defined verification period. The verification statement is the written assurance by a VB that, during a specific period in time, a project activity achieved the emission reductions stated in the monitoring report by the project proponent. The verification included: checking whether the provisions of the monitoring methodology and the monitoring plan were consistently and appropriately applied, and the collection of evidence supporting the reported data.

The GHG emission reductions were calculated correctly on the basis of the approved VCS monitoring methodology VCS Methodology and supporting documentation.

During the course of verification, DNV·GL has raised Corrective Action Requests and Requests for Clarifications that are closed.

DNV·GL is able to certify to a reasonable level of assurance that the gross emission reductions from the project activity "Jari/Amapá REDD+ Project" in Amapá, Brazil during the period 15 February 2012 to 14 February 2014 equate to 400,668 tCO<sub>2</sub>e.

• The verification was based on the information made available to DNV GL and the engagement conditions detailed in this report.



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#### 1 INTRODUCTION

#### 1.1 Objective

Verification is the periodic independent review and *ex-post* determination by an accredited verification body (VB) of the monitored reductions in GHG emissions that have occurred as a result of the registered VCS project activity during a defined verification period. The verification statement is the written assurance by a VB that, during a specific period of time, a project activity achieved the emission reductions stated in the monitoring report by the project proponent.

The objective of this verification was to verify and provide a verification statement of emission reductions reported for the "Jari/Amapá REDD+ Project" ("the project") for the periods 15 February 2012 to 14 February 2014 ("the monitoring period"), as set out in the guidance documents listed in Section 1.2 of this report.

#### 1.2 Scope and Criteria

The scope of the 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 greenhouse gas (GHG) emission reduction data and express a conclusion with a reasonable level of assurance about whether the reported GHG emission reduction data is free from material misstatement.
- To verify that the reported GHG emission data is sufficiently supported by evidence.

The verification shall ensure that reported emission reductions are complete and accurate in order to be verified. The verification was conducted using the following criteria:

- VCS Standard, version 3.5, 25 March 2015.
- VCS Program Guide, version 3.5, 8 October 2013.
- VCS Non-Permanence Risk Tool, version 3.2, 4 October 2012.
- VCS AFOLU Requirements, version 3.4, 8 October 2013.
- VCS Methodology Element: VM0015 Methodology for Avoided Unplanned Deforestation version 1.1, 3 December 2012.



#### 1.3 Level of Assurance

The verification report expresses a conclusion with a reasonable level of assurance about whether the reported GHG emission reduction data is free from material misstatement.

#### 1.4 Summary Description of the Project

The project is located in the state of Amapá, in Brazil, and is aimed at reducing emissions related to unplanned deforestation, as well as the promotion of forest conservation and local economic development. The project is carried out under a partnership between Biofílica Investimentos Ambientais SA, Jari Florestal and Jari Celulose (the latter two both belonging to Grupo Jari).

The project is located in the Brazilian state of Amapá, specifically within the Valley of Jari, in the municipalities of Laranjal do Jari and Vitória do Jari. The Valley of Jari fills a significant biodiversity role in providing habitat for a variety of diverse flora and fauna, some of which are considered threatened or endangered, and it also serves as an ecological corridor between several conservation areas. Over two thousand rural families live in and depend on the resources of the Valley.

Land use pressures in the area include agricultural and grazing development as well as human settlements and large infrastructure work. Thus project treatments are aimed at three main areas: forest protection and monitoring, scientific research; especially related to natural resources and biodiversity, and socio-economic development of communities with a focus on sustainable business chains. Integrating FSC certified low impact forest management and revenue from carbon credits brought about by REDD+ project activities are essential in order to carry out these project treatments so that they are effective.

**Project Proponents (Parties):** Biofílica Investimentos Ambientais S.A, Jari Florestal, Jari Celulose

Title of project activity: Jari/Amapá REDD+ Project

**Baseline and monitoring methodology:** VM0015 Methodology for Avoided Unplanned Deforestation version 1.1

Location of the project activity: Laranjal do Jari and Vitória do Jari, State of Amapá, Brazil

Project"s crediting period: 14 February 2011 to 14 February 2041

Period verified in this verification: 15 February 2012 to 14 February 2014

#### 2 VERIFICATION PROCESS

#### 2.1 Method and Criteria

The verification consisted of the following:

- Project planning.
- A desk review of the project documents.



- Follow-up interviews and site visits with project stakeholders.
- The resolution of outstanding issues and the issuance of the verification report and attestation.

The verification of the emission reductions assessed all factors and issues that constitute the basis for emission reductions from the project. These include:

- The emissions reductions calculations (see /26/)
- The data records and other calculations to support the emission reduction calculations
- The management systems to support the project operation and monitoring (See /9/, /11/ and /8/)
- The monitoring report, non-permanence risk report and other applicable documentation (See (/10/, /1/ and /7/)

Role	Last Name	First Name	Country			Туре о	f Involven	nent	
				Desk Review	Site Visit/ Interviews	Reporting	Supervision of work	Technical Review	TA1.14 ICompetence
Team Leader/Lead Verifier	Holland	Kyle	USA	✓	<b>✓</b>	<b>✓</b>	<b>✓</b>		<b>~</b>
Verifier	Amaral	Marcio	BR	<b>√</b>	<b>✓</b>	<b>√</b>			
Project Manager	Hirst	Michelle	USA				<b>✓</b>		
Technical Reviewer	Aalders	Edwin	Norway					<b>√</b>	✓

#### **Duration of verification**

Preparations and initial desk review: From 29 June 2015 to 14 August 2015 On-site verifications: From 21 September 2015 to 25 September 2015

Reporting, calculation checks and QAQC: From 7 October 2015 to 23 December 2015

#### **Document Review**

#### Documentation provided by the project proponent

The monitoring report (Version 3.2, dated 4 December 2015) and supporting documentation were closely reviewed to assess compliance with verification requirements and criteria.



The following written documents were reviewed in addition to the monitoring report to confirm the project's conformance with the applicable VCS documents. Notable documents that warranted an especially close review included the project description (/10/), the non-permanence risk report (/1/), the activity investment plan with costs and scheduling (/8/) and the VCS approved Methodology for Avoided Unplanned Deforestation, version 1.1 (/39/).

In addition to a close review of the following documents, interviews with project personnel were conducted to serve as supporting evidence in further verifying project details (/51/ through /69/).

	Author	Document Title / Description	File Name
1.	Biofílica Investimentos Ambientais S.A.	Non-Permanence Risk Report	Amapa_RiskTool_v.3.doc
2.	Food and Agriculture Organization of the United Nations	Protecting Plantations from Pests and Diseases	FAO2001.pdf
3.	Florencia Montagnini and Carl Jordan	Tropical Forest Ecology: The Basis for Conservation and Management, assorted excerpts	Montagnini & Jordan (2005), pg.30.pdf
4.	Florencia Montagnini and Carl Jordan	Tropical Forest Ecology: The Basis for Conservation and Management	Montagnini & Jordan (2005), pg.31.pdf
5.	Florencia Montagnini and Carl Jordan	Tropical Forest Ecology: The Basis for Conservation and Management	Montagnini & Jordan (2005), pg.32.pdf
6.	K.S.S. Nair	Pest Outbreaks in Tropical Forest Plantations	Nair, 2001.pdf
7.	Biofílica Investimentos Ambientais S.A.	Monitoring Report	Amapa_MonitoringReport_201 2e2013_v.3.2.docx
8.	Biofílica Investimentos Ambientais S.A	Activity Investment Plan with costs and scheduling	Activities and Investments Schedule_updated.xlsx
9.	Biofílica Investimentos Ambientais S.A	Project proponents works contract, evidence of roles and responsibilities	Convenio_Conta_REDD+.doc
10.	Biofílica Investimentos Ambientais S.A	Project Description	VCS_PDD_English_v.2.docx
11.	Biofílica Investimentos Ambientais S.A	Project Investment Plan Presentation	Proj_Investment Plan_20151015.pdf
12.	Biofílica Investimentos Ambientais S.A	Social-environmental Program Presentation	Fundo Socio Ambiental REDD+ Jari - Final.pptx
13.	Biofílica Investimentos Ambientais S.A	Shapefiles for accuracy assessment samples	Monitoring accuracy assessment_v2.rar



14. 15.	Biofílica Investimentos Ambientais S.A Jari Florestal	Monitoring of social impacts management Sustainable Forest Management 2014/2015	Aspectos e Impactos do Grupo Jari.xls PMFS_Para_updated.pdf
16.	Grupo Jari	Herbicide Application Instructions	PA - Aplicaá∆o de Herbicida Rev 10.pdf
17.	Jari Celulose	Ant Control instructional document	PA - Controle de Formigas rev 11.pdf
18.	Grupo Jari	Caterpillar Control instructional document	PA - Controle de lagartas.pdf
19.	Jari Celulose	Forest fire emergency plan document	PA - Plano de atendimento Ö incàndios florestais rev 0.009.pdf
20.	Jari Celulose	Preventing forest fires instructional document	PA - Prevená∆o e controle de incàndios florestais rev 0.006.pdf
21.	Grupo Jari	Forest fire lecture schedule 2013	Cronograma de palestras nas Comunidades - 2013.pdf
22.	Grupo Orsa (Former Grupo Jari)	Forest fire lecture schedule 2012	Cronograma de palestras sobe incêndios florestais - 2012.pdf
23.	Grupo Jari	Strategic Workshop minutes – October 7, 2014	Memórias Workshop Estratégico Jari – 07 de Outubro de 2014.pdf
24.	Biofílica Investimentos Ambientais S.A	Strategic Workshop notes & questions – October 7, 2014	Memórias_consultas_conta_R EDD+.pdf
25.	Biofílica Investimentos Ambientais S.A	Amapa Baseline Study 2011	AMAPA_Baseline_Study_2011
26.	Biofílica Investimentos Ambientais S.A	Monitoring report GHG calculation tables	.pdf VCS Monitoring Report Jari- Amapá Project 2012_2013_v3.xlsx



#### Methodologies, tools and other guidance by the VCS or any VCS approved GHG program

- 27. VCS: VCS Guidance, Standardized Methods, version 3.3, 8 October 2013
- 28. VCS: VCS Policy Brief: Double Counting: Clarification of Rules, version 1.0, 1 February 2012
- 29. VCS: VCS Program Definitions, version 3.5, 8 October 2013
- 30. VCS: VCS Program Guide, version 3.5, 8 October 2013
- 31. VCS: VCS Project Description Template, version 3.2, 8 October 2013
- 32. VCS: VCS Standard, version 3.5, 25 March 2015
- 33. VCS: VCS Validation and Verification Manual, version 3.1, 8 October 2013
- 34. VCS: VCS Verification Report Template, version 3.3, 8 October 2013
- 35. VCS: VCS AFOLU Requirements, version 3.4, 8 October 2013
- 36. VCS: VCS Monitoring Report Template, version 3.3, 8 October 2013
- 37. VCS: VCS AFOLU Non-Permanence Risk Tool, version 3.2, 4 October 2012
- 38. VCS: Non-Permanence Risk Report Template, version 3.1, 4 October 2012
- 39. VCS: VCS Methodology for Avoided Unplanned Deforestation, version 1.1, 3 December 2012
- 40. CDM: Guidelines on Assessment of Different Types of Changes from the Project Activity as Described in the Registered PDD

#### Documents used by DNV GL to cross-check information provided by the project proponent

Docui	ments used by DNV GL to cross-check inform	lation provided by the project proponent
	Resource	URL
41.	Protecting Plantations from Pests and	http://www.fao.org/3/a-ac130e.pdf
	Diseases	
42.	Tropical Forest Insect Pests	http://www.lacbiosafety.org/wp-
		content/uploads/2011/09/tropical-forest-insect-
		pests-ecology1.pdf
43.	Landsat Data	http://glovis.usgs.gov/
44.	Google Earth	https://www.google.com/earth/
45.	Fires in the Rain Forest	http://rainforests.mongabay.com/0809.htm
46.	The Amazon basin in transition	http://www.nature.com/nature/journal/v481/n7381
		/full/nature10717.html
47.	NASA: Severe Climate Jeopardizing Amazon	http://www.jpl.nasa.gov/news/news.php?release=
	Forest	<u>2013-025</u>
48.	Modelling the long-term impacts of selective	http://ainfo.cnptia.embrapa.br/digital/bitstream/ite
	logging on genetic diversity and demographic	m/84716/1/1-s2.0-S0378112707006020-main.pdf
	structure of four tropical tree species in the	
	Amazon forest	
49.	DNV Climate Change Services Accreditation	http://www.v-c-s.org/det-norske-veritas-climate-
	Divi Chimate Change Cervices / toolecatation	change-services
50.	Validation Report for the Jari/Amapá REDD+	http://www.vcsprojectdatabase.org/#/project_deta
	Project	ils/1115
51.	•	http://www.vcsprojectdatabase.org/#/project_deta
51.	Verification Report for the Jari/Amapá REDD+	ils/1115
	Project	10/1110



#### 2.2 Interviews

DNV GL performed interviews with the persons listed below to confirm information provided by the project proponent and/or to obtain information additional to that provided in the project description and any supporting documents.

52.	<b>Date</b> 22/9/2015	Name / Organization Sr. Pedro Araújo (Nena)	Community/Locality Igarapé das Pacas	Role
53.	22/9/2015	Sr. Orlando Carvalho / RURAP	RURAP (Igarapé das Pacas) <sup>1</sup>	Technical Assistant
54.	22/9/2015	Sr. Antônio dos Santos Bahia / <i>RURAP</i>	RURAP (Igarapé das Pacas) 1	Technical Assistant
55. 56.	22/9/2015 22/9/2015	Raimundo (Fininho) Sr. Osvaldo	Igarapé das Pacas Água Azul	
57.		Domingos Barbosa dos	Nova Conquista	
58.	22/9/2015	Santos Marcos Antônio F. Souza	Nova Conquista	
59.	22/9/2015	Osvaldo José de Carvalho Sanches / RURAP	RURAP (Vitória do Jari)	Rural Extension Technician
60.	22/9/2015	Linaldo Dário Loureiro Ferreira / RURAP	RURAP (Vitória do Jari)	Local Unit Leader
61.	23/9/2015	Davi Cesar / Fundação JARI	Jari Celulose <sup>2</sup>	Responsible for REDD Project HCV
62.	23/9/2015	Augusto Praxedes Neto / Fundação JARI	Fundação Jari <sup>2</sup>	Manager of Sustainability and Institutional Relations
63.	23/9/2015	Marco Antônio dos Santos de Oliveira / Fundação JARI	Fundação JARI <sup>2</sup>	Coordinator of Labor Security and Industrial Hygiene
64.	23/9/2015	Ordilei Batista de Souza / Fundação JARI	Fundação JARI <sup>2</sup>	Work Safety Technician
65.	23/9/2015	Maria de Lurdes	SRAA	Secretary of the SRAA
66.	24/9/2015	Cap. Miranda / SEMA	SEMA	Regional SEMA Manager
67.	24/9/2015	José Gilcian da Silva / Fundação JARI	Fundação JARI <sup>2</sup>	Forest Technician
68.	24/9/2015	Oseniro da Cunha de Souza	Comunidade Retiro	recillician
69.	24/9/2015	Gonçalo Francisco de Araújo	Comunidade Retiro	
70.	24/9/2015	Paulo Roberto da Silva / Fundação JARI	Fundação JARI <sup>2</sup>	Infrastructure Manager

<sup>&</sup>lt;sup>1</sup> These are assistants of the RURAP community who advised the community during our visit;

<sup>&</sup>lt;sup>2</sup> These are employees of Fundação Jari.



#### 2.3 Site Inspections

A site visit to the project area (located within Laranjal do Jari and Vitória do Jari, State of Amapá, Brazil) was conducted from 21 September 2015 to 25 September 2015 during which time the following events took place:

- Observational assessment of the implementation and execution of proposed project activities through physical examination and interviews with project personnel and community members (/51/ through /69/)
- Observational assessment of the implementation and execution of monitoring activities to ensure
  that they were carried out according to their description and were in accordance with the
  applicable methodology.
- Revisiting and re-measuring randomly selected plots for on-the-ground verification that
  measurement techniques were in compliance with the applicable methodology and that reported
  stand growth was consistent with provided calculations.
- Confirmation that described quality assurance quality control procedures were applied

#### 2.4 Resolution of Findings

The objective of this phase of the verification was to resolve any issues which needed to be clarified prior to DNV·GL's conclusion on the project's compliance with applicable VCS requirements.

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

- The project proponent has made mistakes that will influence the ability of the project activity to achieve real, measurable additional emission reductions.
- The applicable 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.

The verification identified 7 CARs. All CARs were reasonably addressed by the project proponent and thus have been closed. It should be noted that CAR 6 was identified as a project description deviation; the project proponent addressed the finding by updating the Project Description to identify the issue as a deviation, however the deviation is now listed in section 2.6 under Methodology Deviations (see /10/). See Appendix A for further details.

The verification identified 16 CLs. All CLs have been successfully addressed by the project proponent and thus all findings have been closed. Please refer to Appendix A for further details.

#### 2.4.1 Forward Action Requests

A forward action request (FAR) is raised during verification to highlight issues related to project implementation that require review concerning monitoring and reporting during the next monitoring period and subsequent verification of the project activity. FARs shall not relate to VCS requirements for registration. Two FARs have been identified.

 FAR 1: FAR 1 suggests the harvesting of wood products in the project scenario and to include this pool in the next monitoring period.



• FAR 2: FAR 2 suggests the inclusion of a new procedure to monitor and account for newly regularized land when the land regularization process is carried out to transfer titles on land within the project area boundaries.

Please see Appendix A for further details.

#### 2.5 Eligibility for Validation Activities

As of the contractual service date with the client, DNV holds accreditation for verification and validation activities under sectoral scope 14 as set out by the eligibility guidelines set forth in the VCS Program Guide (/30/) and as recognized by the VCSA (see /48/).

#### 3 VALIDATION FINDINGS

Throughout the verification process for this monitoring period (15 February 2012 to 14 February 2014), one activity merited a validation finding and consequent project description deviation. The project proponent submitted a revised project description confronting this validation issue (see /10/). Details pertaining to this validation finding in terms of the project description deviation are discussed in greater detail below in section 3.3.

#### 3.1 Participation under Other GHG Programs

This project is not able to participate under other GHG Programs as it is already been registered as a VCS project with project ID 1115. Based on interviews conducted during the site visit, no evidence was observed that the program is participating under another GHG program. The project is seeking validation under the Climate, Community and Biodiversity Alliance but which is not a qualified GHG program.

#### 3.2 Methodology Deviations

Due to VCS template constraints, It should be noted that the project description deviation related to CAR 6 is listed in the updated Project Description (/10/) under the Methodology Deviations section.

#### 3.3 Project Description Deviations

Throughout the verification process for this monitoring period (15 February 2012 to 14 February 2014), two project description deviations were identified. One deviation, as described above in section 3, was considered a validation finding and affected the applicability of the methodology, additionality or the appropriateness of the baseline scenario, as described per section 3.6.1 of the VCS Standard version 3.5 (/32/). The other project description deviation did not affect applicability of the methodology, additionality or the appropriateness of the baseline scenario. Details for both deviations can be seen in the sections below.

#### 3.3.1 Project Description Deviation – CAR 6

The finding for CAR 6 was centered on the additionality requirement set forth in the VCS Standard version 3.5 (/32/). Based on interviews with Grupo Jari management conducted throughout the site visit (see /61/ and /66/), it was identified that a rudimentary forest surveillance system was implemented prior to the project start date and that it was funded with revenue outside of direct carbon finance. As a result of carbon finance, the surveillance system was intensified and thus more effective. However, because the *introduction* of a surveillance system was described as a project activity during validation as opposed to the *intensification* of an existing surveillance system, the additionality argument presented in the registered project description was determined to be inaccurate and thus the additionality of the project in the context of the a pre-existing surveillance system was reassessed during this verification.



The original additionality argument was established during validation to reflect a certain set of conditions which included the project activity of the surveillance system. However, the conditions originally described in the project description were inaccurate because they included the surveillance system as a new activity being implemented as a result of the project when in fact the surveillance system was already occurring prior to project commencement. The introduction of a surveillance system as a project activity in the project description was inaccurately described and should have been included as the intensification of the surveillance system. Therefore, the original additionality argument had to be reassessed.

According to section 3.6.1 of the VCS Standard version 3.5 (/32/), where the deviation impacts the applicability of the methodology, additionality or the appropriateness of the baseline scenario, the deviation shall be described and justified in a revised version of the project description. Moreover, the Standard (/32/) references the CDM guidelines (/40/) which specify that changes which may impact the additionality of a project activity may include addition of component or extension of technology (which directly applies to this circumstance). The revision should include a description of when the changes occurred, the reasons for the changes and the how the changes impact the applicability of the methodology, additionality or the appropriateness of the baseline scenario.

The project proponent has fulfilled this requirement by submitting a revised version of the project description (see /10/) with a justification for the deviation which includes a description of the when the changes occurred, the reasons for the changes and how the changes impact additionality.

The project proponent explains that the surveillance system is not a change which has taken place during project implementation but was a system in place before the project started that was not previously highlighted as an additionality issue during project validation. The forest surveillance system has been identified as an element that would be present, in at least some form, in all credible alternative land use scenarios, even in the continuation of the land-use prior to project implementation (see Section 2.5 of /10/), thus providing some reasoning for why the change exists. Even in the land-use scenario prior to project implementation, the surveillance system was already in place as a means to meet requirements for the Brazilian Forest Code in which the Groupo Jari would be responsible for the maintenance of native forest cover in the area designated as the legal reserve. However, the project proponent notes that without accompanying project activities in place, the rudimentary surveillance system does little to prevent agents and drivers from continuing direct and indirect acts of deforestation.

In other alternative land scenarios that are described (conducting project activities not officially registered as VCS AFOLU activities and the continuation of FSC-certified forest management activities without additional VCS AFOLU activities) the surveillance system would also be expected to be present. However, the project proponent explains that without direct carbon-related finance, the surveillance systems in place in alternative land use scenarios would likely be weak and less effective than a surveillance system with direct carbon-finance. With direct-carbon finance, for example, the surveillance system now incorporates regular ground-checks of all deforested polygons, as opposed to previously where polygons were only checked randomly or if observations of deforestation were reported. Therefore, concerning additionality, the project deviation is justified in its changes because the inclusion of the surveillance system as part of the project scenario allows for more thorough, consistent monitoring of deforested polygons. In re-examining the project activity and more importantly, clarifying within the project description (/10/) that the activity is the intensification of surveillance rather than introduction of surveillance, then the additionality argument is sufficiently re-evaluated.



With the amended project description, the project proponent is able to defend the additionality of this project activity. The project activity is still additional because its improvements (i.e. the intensification of the surveillance) would not be possible without carbon related finance. Because the original additionality argument was based around the introduction of a surveillance system instead of the intensification of an existing surveillance system, the original additionality argument had to be reassessed and the explanations had to be documented within the project description. As a result of the reassessment of the information found during the site visit, the additionality argument was updated thus triggering a project description deviation as required by the VCS Standard (/32/) as well as an updated project description that included the new additionality argument.

Additional documentation was used to crosscheck information and claims made by the project proponent (see /45/ and /47/). Interviews with project personnel were also used to confirm claims and crosscheck information (see /66/, /60/ and /69/).

It should be noted that in the updated Project Description (See /10/) the deviation is discussed under section 2.6 Methodology Deviations.

#### 3.3.2 Project Description Deviation – CL 11

The finding for CL 11 was identified as a project description deviation per VCS Standard version 3.5 (/32/) that did not impact the applicability of the methodology, additionality or the appropriateness of the baseline scenario. The finding for CL 11 concerned section 3.1.3 from the AFOLU requirements version 3.4 (/35/) which states that project proponents shall identify potential negative environmental and socioeconomic impacts and shall take steps to mitigate them. Based on observations and community interviews from the site visit, several potential negative environmental and socio-economic impacts may have been occurring as a result of some project activities, including but not limited to the surveillance system and forest extraction.

During the audit the project proponent identified potential negative impacts and take steps to mitigate them not originally included in the Project Description. Section 3.6 of the VCS Standard version 3.5 (/32/) provides examples of project deviations which do not impact the applicability of the methodology, additionality or the appropriateness of the baseline scenario. Such examples include changes in measurements procedures as well as monitoring procedures. In response to the issued finding, the project proponent identified and created additional monitoring components (acting as steps for mitigation) in order to address these potential negative impacts. The development of new monitoring components prompts the need for a project description deviation.

According to the VCS Standard version 3.5 (/32/), such deviations shall be described and justified in the monitoring report and in all subsequent monitoring reports. This shall include a description of when the changes occurred and the reasons for the changes.

As described in the monitoring report for this monitoring period (see /7/), after the project validation, Groupo Jari carried out additional assessments of impacts related to forestry operations. Consequently, several new impacts were identified that were not discussed prior to or during validation. These included forest inventory disruptions (consequences of opening roads, creating access), timber transport (accidents, noise, road network access) and labor issues (employment opportunities, improvement of



living conditions, insufficient communication), among others. New monitoring techniques relating to impact mitigation were developed and can be viewed in /14/.

In the monitoring report, the project proponent describes that the reassessment of these impacts was undertaken as part of FSC-related demands and that additional monitoring techniques were implemented after each impact was individually assessed and the best action taken (minimize, mitigate, improve, monitor) was applied. Because re-assessment was required for FSC activities, and consequently notable negative impacts were identified, incorporating new mitigation techniques is not only justified, but responsible and forward-thinking. Mitigation techniques may encompass new monitoring components which trigger the need for a project description deviation. The project proponent's description of why impacts were re-assessed and mitigation steps revised justifies the changes and consequently, justifies the need for a project description deviation.

More recently, during this verification period, the project proponent also identified potential negative impacts relating to the Brazil Nut trees. The management plan has been altered to incorporate these trees and activities such as tree identification, marking, mapping and community awareness outreach, which may qualify as additional monitoring components, have now been added post-hence to the project. The project proponent explains in the monitoring report that the trees have recently been identified as an important non-timber forest product and a vital resource as well as a source of income for many members of the communities thus explaining why the deviation to the project description has now occurred and why the deviation is justified.

The project proponent has identified several potential negative impacts that were unassessed prior to validation. In their assessment, the project proponent created and incorporated several new monitoring components thus triggering the need for a project description deviation. As required by the VCS Standard version 3.5 (/32/), the project proponent justified and described the need for the deviation in the monitoring report (see /7/) and explained when and why the changes occurred.

Information and claims made by the project proponent were crosschecked using additional documentation (see /43/, /45/, /46/ and /47/) and through interviews with project personnel and community members (see /58/, /59/, /60/ and /66/).

#### 3.4 Grouped Project

This project is not a grouped project.

#### 4 VERIFICATION FINDINGS

#### 4.1 Project Implementation Status

During the site visit, through observations of project activities and interviews with project personnel (see /58/, /59/ and /60/) DNV GL confirmed that the project has been implemented throughout this monitoring period as it was described in the monitoring report (/7/) and in the amended project description (/10/VCS\_PDD\_English\_v.2.docx) including all documented methodology and project description deviations.

Methodology deviations existing from project validation remain and have no new deviations have been noted during this verification period. The following methodology deviations were noted at validation:



- The reference region has not been stratified, even though the current situation is expected to change within the project area, due to construction of the hydroelectric Santo Antonio dam. As described more fully in Section 3.2.3.1 of the validation report (see /49/), this deviation was a deviation to the criteria and procedures for measurement of area deforested in the baseline scenario. It is most likely that this led to conservative measurements of deforestation in the historical reference period, relative to the measurements that would have been obtained had the guidance of the methodology been followed.
- While the Santo Antonio hydroelectric dam is expected to develop near the project area, the reference region does not include a stratum where hydroelectric dam infrastructure was built in the past and where the impact on forest cover was similar to the one expected from the new or improved infrastructure in the project area. As described more fully in Section 3.2.3.1 of the validation report (see /49/), this deviation was a deviation to the criteria and procedures for measurement of area deforested in the baseline scenario. It is most likely that this led to conservative measurements of deforestation in the historical reference period, relative to the measurements that would have been obtained had the guidance of the methodology been followed.
- Only one forest class was included in the Land-Use/Land-Cover (LU/LC) classification system, although three forest strata were identified. The carbon stock values used to determine baseline emissions were weighted average values and were weighted by the area in each stratum. As described in Section 3.2.4.1 of the validation report (see /49/), this deviation a deviation to the criteria and procedures for measurement of area deforested in the baseline scenario. It was considered at validation to result in greatly simplified accounting of baseline and project GHG emissions while not compromising the conservativeness of the quantification of GHG emission reductions.
- The distance maps used for predicting the location of unplanned deforestation, which are produced using the "empirical approach", are not categorized in a number of predefined distance classes but rather use continuous data. As described in Section 3.2.4.3 of the validation report (see /49/), this deviation was a deviation to the criteria and procedures for measurement of area deforested in the baseline scenario. The deviation results in increased accuracy of the prediction of deforestation because it avoids the degradation of accuracy that inevitably accompanies the dissolution of continuous data into categorical data.
- A "masking" approach was implemented to modify the risk map that was created following the guidance of Step 4.2.2 of the methodology (see /39/). As described in see Section 3.2.4.3 of the validation report (see /49/) this deviation was a deviation to the criteria and procedures for measurement of area deforested in the baseline scenario. For a variety of reasons, as set out in Section 3.2.4.3 of the validation report (see /49/), the deviation will result in increased accuracy of the measurement of baseline deforestation, and therefore increased accuracy in the quantification of GHG emission reductions.
- The areas of each post-deforestation class were not reported, as required by the Step 5 of the
  methodology (see /39/). Rather, a peer-reviewed publication was used to determine the
  "equilibrium proportion" of each post-deforestation land use, and a weighted carbon stock value
  (weighted by the "equilibrium proportion" was sourced from that publication. This deviation a



deviation to the criteria and procedures for measurement of carbon stock changes in the baseline scenario. It was considered by the audit team to have no impact on the quantification of GHG emission reductions.

#### 4.1.1 Project Activities Implementation

Site visit occurrences, including interviews with project personnel, community members and stakeholders as well as observations of project activities confirm that project activities have been implemented in the manner described in the project description (/10/) and in the deviations described within the monitoring report (/7/). This includes FSC forest management activities as well as specific REDD+ activities (see /58/, /59/, /60/, /61/, /66/ and /69/).

#### 4.1.2 Monitoring Plan Implementation

The monitoring plan submitted in the project description (/10/) was checked with the monitoring report (/7/) to ensure compliance in terms of GHG emission reduction calculations as well as monitoring occurrences. DNV GL also conducted interviews to confirm that monitoring plans were implemented as described (see /58/, /59/, /60/, /66/ and /69/).

Methods for GHG emissions calculations were compared between the project description (/10/) and monitoring report (/7/) and no differences were noted that would cause inflated estimates for emissions reductions in this monitoring period. Additionally, calculations carried out for monitoring report tables (/26/) were verified as being consistent with field inventories and GIS data. These data were reviewed during the site visit and confirmed as being the same as during the previous verification period (see /50/). Required estimates and calculations are in conformance with the applicable Methodology for Avoided Unplanned Deforestation version 1.1 (/39/).

DNV GL observed the implementation of monitoring procedures related to FSC and REDD+ project activities, including the monitoring of emissions in the project area and leakage belt, and it can be confirmed that they are carried out in accordance with the project description and monitoring report. Monitoring of land use change within these two areas was conducted using the same remote sensing data source and procedures that were approved at validation (see /49/).

It was noted that during this monitoring period, the project has made two project description deviations. It is noted that one of these deviations relates to an issue from validation. Issues raised during validation concerning these issues have been resolved by the project proponent by further explanation of actions and provision of extra supportive documentation. Details concerning these deviations are located in this report in section 3.3.

Classification of LULC data was crosschecked using /42/ and /43/.

DNV GL confirmed that the project has not received any other form of environmental credit nor has it participated or been rejected under any other GHG programs since the previous verification.

#### 4.2 Accuracy of GHG Emission Reduction and Removal Calculations

In accordance with the applicable Methodology for Avoided Unplanned Deforestation version 1.1 (/39/), the GHG emission reductions and removals for this monitoring period (15 February 2012 to 14 February 2014) have been determined using the "historical LULC change" method as designated in the monitoring plan in the project description (/10/). Calculations have been verified as in accordance with this method



(/26/). Data were examined on site and shown to be consistent with the previous verification period (see /50/).

The accuracy assessment (see /13/ and /7/) carried out by the project proponent was reviewed and determined to be properly conducted as well as in alignment with what was described in the monitoring report (/7/). Additional crosschecking of this information was performed using /42/ and /43/ and through the interview process (/66/).

#### 4.2.1 Baseline Emissions

The avoided baseline emissions for the monitoring period from 15 February 2012 to 14 February 2014 would be calculated according to the applicable VCS Methodology for Avoided Unplanned Deforestation version 1.1 (see /39/) using the following equation:

Baseline Emission = ( $\triangle$ Cab BSLPAt[above ground biomass]+  $\triangle$ Cab BSLPAt[below ground biomass] +  $\triangle$ Cab BSLPAt[Litter]) + EBBBSLPAt

#### Where:

 $\triangle$ Cab BSLPA<sub>t</sub>[above ground biomass] = Total carbon stock change in the above ground biomass of the initial forest classes in the project area

 $\triangle$ Cab BSLPA<sub>t</sub>[below ground biomass] = Total carbon stock change in the below ground biomass of the initial forest classes in the project area

△Cab BSLPA<sub>t</sub>[Litter] = Total carbon stock change in the litter of the initial forest classes in the project area

EBBBSLPAt = the GHG Emissions during the Baseline scenario

#### Where:

- △Cab BSLPAt[above ground biomass] is calculated as △Cab BSLPA icl,t[above ground biomass] △Cab BSLPAz,t[above ground biomass]
- △Cab BSLPA<sub>t</sub>[below ground biomass] is calculated as △Cab BSLPA icl,t[below ground biomass]
   rCab BSLPAz,t[below ground biomass]
- △Cab BSLPA;[litter] is calculated as △Cab BSLPA icl,t[litter] rCab BSLPAz,t[litter]
- EBBBSLPAt is calculated as ABSLPAicl,t \* EBBBSLtoticl

#### Where:

 $\triangle$ Cab BSLPA icl,t[above ground biomass] = Total carbon stock change in the above-ground biomass of the initial forest classes in the project area

 $\triangle$ Cab BSLPAz,t[above ground biomass] = Total carbon stock change in the above-ground biomass of post-deforestation zones in the project area

 $\triangle$ Cab BSLPA icl,t[below ground biomass] = Total carbon stock change in the below-ground biomass of the initial forest classes in the project area

 $\triangle$ Cab BSLPAz,t[below ground biomass] = Total carbon stock change in the below-ground biomass of post-deforestation zones in the project area

 $\triangle$ Cab BSLPA icl,t[litter ground biomass] = Total carbon stock change in the litter of the initial forest classes in the project area

 $\triangle$ Cab BSLPAz,t[litter ground biomass] = Total carbon stock change in the litter of post-deforestation zones in the project area



ABSLPAicl,t = Area of initial forest class icl deforested at time t-1 within the project area in the baseline case; ha

EBBBSLtoticl = Sum of (or total) actual non- CO2 emissions from forest fire at year t in strata i in forest class icl

Calculations were confirmed by visual on-site observation that the same data was used as the previous monitoring period (see /50/) and through the interview process (/66/). Results of calculations can be confirmed as reasonable in accordance with the methods used to carry out calculations (see /26/).

Baseline emissions were determined for the following carbon pools based on the project proponent's calculations (see /26/) and the above-to-below ground conversion ratio defined by VM0015 (25.8%):

- Above ground biomass: 114,254.8 tCO2e
- Below ground biomass: 342,764.4 tCO2e

The total baseline emissions from the above pools for this monitoring period were estimated as: 457,019.2 tCO2e

#### 4.2.2 Project Emissions

Using the applicable VCS approved Methodology for Avoided Unplanned Deforestation version 1.1 (see /39/), project emissions were calculated as the sum of emissions from ex post project carbon stock changes and ex post project emissions.

According to the Methodology for Avoided Unplanned Deforestation version 1.1 /39/, the project emissions for the monitoring periods would be:

Project Emission = △Cab CPSPAt + EBBPSPAt

Where:

 $\triangle$ Cab CPSPAt = Ex post project carbon stock changes calculated through =  $\triangle$ CPAdPAt +  $\triangle$ CPAiPAt +  $\triangle$ CUDdPAt

EBBPSPAt = Ex Post Project Emissions

Where:

△CPAdPAt = Total carbon stock decrease due to planned activities

 $\triangle$ CPAiPAt = Total carbon stock increase due to planned activities  $\triangle$ CUDdPAt = Total carbon stock decrease due to unavoided unplanned deforestation

Ex post project carbon stock changes included:

- Total carbon stock decrease due to planned activities
- Total carbon stock increase due to planned activities
- Total carbon stock decrease due to unavoided unplanned deforestation

Calculations were confirmed by visual on-site observation that the same data was used as the previous monitoring period (see /50/). Results of calculations can be confirmed as reasonable in accordance with the methods used to carry out calculations (see /26/) and were transparently documented.

Project emissions were determined for the following carbon pools based on the project proponent's calculations (see /26/) and the above-to-below ground conversion ratio defined by VM0015 (25.8%):



Above ground biomass: 14,087.75tCO2e
Below ground biomass: 42,263.25 tCO2e

The total project emissions from the above pools for this monitoring period were estimated as: 56,351.0 tCO2e

#### 4.2.3 Leakage

Leakage was monitored by mapping forest cover change in the leakage belt. Pursuant to VCS Methodology for Avoided Unplanned Deforestation version 1.1 (see /39/), deforestation above the baseline in the leakage belt area will be considered activity displacement leakage. Leakage was calculated as:

 $\Delta$  SLLKt = Ex Ante  $\Delta$  SLLKt - Ex Post  $\Delta$  SLLKt Where:

 $\Delta$  SLLKt = Total ex ante net baseline carbon stock change and < 0 represents no leakage Ex Ante  $\Delta$  SLLKt = Total ex post net actual carbon stock change Ex Post  $\Delta$  SLLKt = Total ex ante net baseline carbon stock change

Calculations were confirmed by visual on-site observation that the same data was used as the previous monitoring period (see /50/) and crosschecked through the interview process (/66/). Results of calculations can be confirmed as reasonable in accordance with the methods used to carry out calculations and were transparently documented (see /26/)

Because leakage was calculated as the difference between the ex post and ex ante, the result is less than zero and thus the total ex post leakage was set to zero.

#### 4.2.4 Summary of GHG Emission Reductions and Removals

The net GHG emissions reductions and removals for applied project activities for this monitoring period (15 February 2012 to 14 February 2014) have been verified to be calculated according to the applicable VCS approved Methodology for Avoided Unplanned Deforestation version 1.1 (/39/) and are in accordance with the descriptions set forth in the project description (/10/). The net GHG emission reductions and removals were calculated as:

 $(\Delta REDD_t) = (\Delta CBSLPA_t + EBBBSLPA_t) - (\Delta CPSPA_t + EBBPSPA_t) + (\Delta CLK_t + ELK_t)$ 

Component	GHG emissions reductions and removals (tCO2e)
Baseline Carbon Stock Change	457,019.2
Baseline GHG Emissions	0
Ex Ante Project Carbon Stock Change	0
Ex Ante Project Emission	56,351.0



Ex Ante Leakage	0
Ex Ante Leakage GHG Emissions	0
Total Ex Ante GHG Emissions Reductions and	400,668.2
Removals	

The total GHG emissions reductions and removals for the monitoring period from 15 February 2012 to 14 February 2014 is 400,668 tCO<sub>2</sub>e.

#### 4.3 Quality of Evidence to Determine GHG Emission Reductions and Removals

The project proponent has established management systems, monitoring procedures, outlines of roles and responsibilities and QAQC procedures which ensure consistent data collection, recordation and storage (see /15/, /9/ and /14/).

Implementation of these systems has been witnessed during the site visit and actions are confirmed to be in accordance with their documented descriptions. It was confirmed during the site visit that the data used for calculations and to determine GHG emissions reductions and removals is consistent with those from the previous verification period (see /50/) and thus calculations can be verified as accurate.

The accuracy assessment (see /13/ and /7/) carried out by the project proponent was reviewed and determined to be properly conducted as well as in alignment with what was described in the monitoring report (/7/). Additional crosschecking of this information was performed using /42/ and /43/ and through the interview process (/66/).

#### 4.4 Non-Permanence Risk Analysis

Pursuant to the requirements set forth by the VCS Standard version 3.5 (/32/), the project proponent has conducted a non-permanence risk assessment using the VCS AFOLU Non-Permanence Risk tool version 3.2 (/37/). According to the assessment, the overall risk rating is 16.5%, which is 0.5% less than the project's risk rating from the validation report. The risk rating has dropped as a result of a changes to the internal and external risk ratings. The internal risk rating decreased by a mitigation score of -8 for opportunity costs, item i. This is justified based on interviews with environmental agencies and an attorney. As confirmed during the site visit, the external risk increased because fewer than 50% of households living in the project area who are reliant on the project area have been consulted. It is unclear why this score was zero for the initial project validation and verification.

Risk Category	Rating
a. Internal Risk	6
b. External Risk	10
c. Natural Risk	0.5
Overall Risk Rating (a + b + c)	16.5%



#### 4.4.1 Internal Risk

Applicable internal risks included encroachment by outside actors and communities into the project area, a lack of qualified human capital to continue project management and a delay of forest management plans approval. These risks were described in the risk report (see /1/) and evidence of the risks was witnessed during the site visit. The project proponent has identified realistic and applicable mitigation techniques to adequately face these risks throughout the project lifetime such as scheduled interactions with communities outlining business opportunities, establishment of training and qualification activities and institutional articulation with competent governing bodies to push forward plan approval for forest management plans.

Information provided by the project proponent was crosschecked using further additional documentation (see /45/ and /47/) and through the interview process (/58/, /59/, /61/, /62/, 63/ and /69/). Additional details can be seen in the risk report/1/.

#### 4.4.2 External Risk

The most notable risk identified by the project proponent involves the legally binding commitment to continue management practice that protection the credited carbon stocks for at least 100 years. According to the Brazilian forest code, as a legal reserve, the project area must be designated for sustainable forest use. Groupo Jari manages eucalyptus plantations on 20% of the legal reserve land. The other eighty percent is aimed at sustainable forest management and development of the REDD+ project. So long as the development of the REDD+ project and sustainable forest management remains intact and feasible then the risk of an expanding eucalyptus plantation is low (see /1/), though everpresent and if conditions allow for, potentially dangerous in terms of project implementation being possible. That is to say, because eucalyptus plantations are present on part of the land, there is always potential for them to expand, especially if they present a more financially feasible option than sustainable forestry or REDD+ carbon-related finance.

Information provided by the project proponent was crosschecked using further additional documentation (see /40/, /45/ and /46/) and through the interview process (/61/, /64/, /65/ and 66/). Additional details can be seen in the risk report (/1/).

#### 4.4.3 Natural Risk

The project proponent discusses several natural risks in detail which may affect project feasibility. Issues of forest fires were raised during the project findings period especially concerning mitigation. The project proponent addressed such issues with explanatory support as well as further documentation (see PA - Prevená∆o e controle de incàndios florestais rev 0.006.pdf and PA - Plano de atendimento Ö incàndios florestais rev 0.009.pdf).

Pest and disease outbreak were also highlighted as notable concerns. The project proponent was able to address these risks by providing additional documentation demonstrating the low risk of disease and pest outbreak in intact tropical ecosystems and tropical plantations (see /2/, /3/, /4/, /5/ and /6/).

Information provided by the project proponent was crosschecked using further additional documentation (see /40/, /41/ and /44/) and through the interview process (/62/, /63/ and /66/). Additional details can be seen in the risk report (/1/).



#### 5 VERIFICATION CONCLUSION

DNV (USA) Inc. (DNV GL) has performed the verification of the monitoring report for the net GHG emission removals for the "Jari/Amapá REDD+ Project" for the period 15 February 2012 to 14 February 2014.

This verification was conducted by the accredited DNV GL (see /48/) in accordance with the VCS requirements (/32/), the applicable Methodology for Avoided Unplanned Deforestation version 1.1 (/39/), the monitoring plan from the project description (/10/ and /11/) dated 4 December 2015, and the non-permanence risk report (/1/) dated 6 November 2015.

DNV GL verifies that the net GHG emission reductions and removals of the Jari/Amapá REDD+ Project for the monitoring period from 15 February 2012 to 14 February 2014 are fairly stated in the monitoring report (/7/) and can be approved as follows:

Year	Baseline emissions or removals (tCO <sub>2</sub> e)	Project emissions or removals (tCO <sub>2</sub> e)	Leakage emissions (tCO <sub>2</sub> e)	Gross GHG emission reductions or removals (tCO <sub>2</sub> e)	Net GHG emission reductions or removals (tCO <sub>2</sub> e)
Year 2012- 2013	248,949	44,423	0	204,525	170,778
Year 2013- 2014	208,071	11,928	0	196,143	163,779
Total	457,019	56,351	0	400,668	334,558

With an approved risk rating of 16.5%, the amount of VCUs to be issued is 334,558 tCO2e.

01 March 2016

#### **APPENDIX A: LIST OF FINDINGS**

	Corrective action and/ or clarification requests	Response by project participants	Verification conclusion
1	CAR 1	R1. All risk ratings were completed and are	DNV GL Assessment
	Document Reference:	presented on Amapá Risk Tool, v2.	1 October 2015
	Non-Permanence Risk	·	
	Report – 23 June 2015	R2 (October 30 <sup>th</sup> ).	The project proponent has
	Standard Reference:	Regarding the fire risk rating:	provided an update risk
	VCS Standard 3.5,	The justification for the selected rating for fire	report. The risk report
	Section 2.1	provided these warnings of fire danger is set up on	contains additional
	AFOLU Non-Permanence	the procedure "PA – Prevenção e Controle de	justification for some
	Risk Tool 3.2, Section	Incêndios Florestais" (in English: Prevention and	natural risks.



Corrective action and/ or clarification	Response by project participants	Verification conclusion
requests		
or clarification requests  1.1.3 and 2.4  Project proponents shall clearly document and substantiate the risk analysis covering each risk factor applicable to the project. During the analysis, the validation/verification body shall evaluate the risk assessment undertaken by the project proponent and assess all data, rationales, assumptions, justifications and documentation provided by the project proponent to support the non-permanence risk rating.  The project proponent has provided adequate justification for most selected risk ratings; however justification for	controlling of forest fires").  This procedure states that the lack of rain, intense winds, low air humidity and the costmary way of doing agriculture ("slash and burn") contribute to increase fire risk during the dry season (July to December).  Daily, an operator of the Central radio Station (called "Alfa") collects data from the previous day regarding temperature, humidity and precipitation with INFRAERO (public body responsible for the civil aviation). These data are registered in an electronic spreadsheet available in the Alfa, and the spreadsheet calculates the rating of fire risk, being "Null", "Medium", "High" and "Very High". This information is passed thorough a message to technicians, supervisors and coordinators of the Forestry Sector. They are responsible for updating the informative signs distributed all over the operational area. If it rains the fire risk will automatically be signed as "Null".  Regarding the human action:  Human action was conservatively included in the analysis, as proposed. See Amapa_RiskTool_v.3. Additional considerations were made regarding the mitigation measures: The same procedure mentioned before, "PA – Prevenção e Controle de Incêndios Florestais", set up prevention measures	With respect to fire risk, new information has been provided for mitigation. Based on observations during the site visit, the mitigation measures outlined in the risk report are rational and evident. However also observed during the site visit, there are signs in the project vicinity posting "fire danger" warnings and levels. At least one posting indicated a high risk of fire. Please justify the selected rating for fire provided these warnings of fire danger. Does not restrict fire risk to nonhuman causes and therefore human action should be conservatively included in the analysis.  With respect to pest and disease outbreak, the
•		
	roads and preventive environmental education. This preventive environmental education is a set of activities, mostly informative workshops, aiming to deliver information and necessary instructions to general local population regarding basic knowledge on protecting the forest and avoiding forest fires. Along with the informative workshops there are also written material and audiovisual resources elaborated with this end.	risk tool.  This finding remains open.  DNV GL Assessment 2 December 2015  The risk report section for
	Besides all of this the procedures also indicates essential points regarding fire fighting, such as, necessary equipment, fighting methods, and safety measures.  The Procedure "PA – Prevenção e Controle de Incêndios Florestais", the schedule of the Forest Fire Preventions Workshops executed in 2012 and	Natural Risks now discusses human action with respect to fire and such factors are included in the analysis for conservativeness. Mitigation approaches

26 v3.3

Mitigation approaches directly related to human-





Corrective action and/	Response by project participants	Verification conclusion
or clarification requests		
Tequests	2013 was be made available to the auditor team.	induced fire risk have now
	2373 Was 55 made available to the additor team.	been discussed in the risk
	Regarding pest and disease outbreak:	report.
	The significance and likelihood selected for the Pest	
	and Disease Outbreaks in the Project Area (Tropical	With respect to pest and
	Forest) The Amazon Biome is an extremely old ecosystem,	disease outbreak risk, the explanation provided is
	thus very well adapted and ecologically balanced.	reasonable and is
	Pest and disease outbreaks normally occur in	included in the risk tool
	artificial ecosystems, such as forest plantations, or	(Amapa_RiskTool_v.3.do
	low diverse forests. (Nair, 2001)	c). However, the
	According to the Food and Agriculture Organization	explanation is not included in the Monitoring
	of the United Nations (FAO, 2001) "a fundamental concept of ecosystem dynamics is that as diversity	Report or Project
	increases, so does stability". It states that the	Description nor is the risk
	greater the number of species within an ecosystem	tool referenced in either of
	the greater are the checks and balances that	these documents in the
	prevent disturbances from one species, as pest and	context of pest and disease outbreak. Please
	disease, to the point where other ecosystem components are threatened. As an example it	amend the Project
	mention that in a tropical rainforest, as a complex	Description and
	ecosystem with a thousand of plants occupying a	Monitoring report to
	single unit of area, the population of a host specific	include this information.
	will find only a limited amount of suitable host material and its number will remain stable.	Additionally, please
	Adding to that Montagnini & Jordan (2005) in their	provide copies of the cited
	book "Tropical Forest Ecology: The Basis for	references (Nair, 2001
	Conservation and Management" discuss that since	and Montagnini & Jordan,
	tropical ecosystems have ideal environmental	2005).
	conditions for growth of bacteria, fungi and insects that may cause or carry diseases and high	The finding remains open.
	herbivore pressure on the tropical plants, they have	···· g ····· g ········ sp ····
	developed a variety of defense mechanism, such as	DNV GL Assessment
	the presence of secondary plant chemicals to make	4 December 2015
	leaves unpalatable to many herbivores and the high species diversity itself.	The explanation for pest
	Even agreeing "adaptation takes place ate the	and disease outbreak risk
	species level and diversity is an adaptation at the	that is provided is
	community level", they argue that many herbivores	reasonable and is
	and diseases are specific to a particular specie and	included in the risk tool
	the high diversity of species makes it hard for the disease organism locate and attack one individual	(Amapa_RiskTool_v.3.do c). However, the
	and than find others to attack in a short distance to	explanation is not
	configure and outbreak or a pest.	included in the Monitoring
	"The greater the distance between	Report or Project
	individuals of a given species and	Description, nor is the risk tool referenced in either of
	greater the number of other species between individuals of the same	these documents in the
	species, the lower the probability	context of pest and
	that an insect or disease organism	disease outbreak. Please
	will find the next individual, and the	amend the Project
	lower the rate of population growth	Description and
	of the disease organism and	Monitoring Report to



	Corrective action and/ or clarification	Response by project participants	Verification conclusion
	requests		
	or clarification requests	herbivores." (Janzen, 1970 apud Montagnini & Jordan, 2015).  The same thing don't occur in forest plantation or even many natural forests in the northern hemisphere boreal and temperate zones, due to their diversity and stability, tend to perform as a much simpler ecosystem when compared to tropical forests, and therefore more susceptible to outbreaks of insects.  In that sense Grupo Jari has procedures to deal with pest and outbreak diseases regarding its planted eucalyptus forests, in particular those most usual in the region that attacks forest plantation: ants, caterpillars and weeds. These procedures were made available to the VVB.	include this information.  Additionally, please provide copies of the cited references (Nair, 2001 and Montagnini & Jordan, 2005).  The finding remains open.  DNV GL Assessment 7 December 2015  The project proponent has provided copies of the cited references for Nair, 2001 and Montagnini & Jordan, 2005.  However, the explanation for pest and disease outbreak risk that is provided in this document is not included in the Monitoring Report or Project Description, nor is the risk tool referenced in either of the documents in the context of pest and disease outbreak. Please amend the Project Description and Monitoring Report to include this information and/or reference to the risk tool.  The finding remains open.  DNV GL Assessment 22 December 2015  The project proponent has
			now adequately cited these supporting papers. The papers support the selected risk rating. This finding is now closed.
2	CAR 2		DNV GL Assessment
	Document Reference: Monitoring Report – 23	The map labeled "cumulative areas credited" was updated to incorporate orientations present on	1 October 2015
	June 2015, Section 5 Standard Reference:	VM0015, page 115. The new map can be found on the document Amapá Monitoring Report, v.2.	The project proponent has provided an updated map.



Corrective action and/	Response by project participants	Verification conclusion
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VM0015 v1.1, Part 3, Task 1, 1.3		The updated map now meets the requirements of VM0015 and therefore this finding is closed.
Cumulative Areas Credited within the project area shall be updated and presented to VCS verifiers at each verification event. The cumulative area cannot generate additional VCUs in future periods.		g
The project proponent has provided a map labelled "cumulative areas credited" however the map does not show cumulative areas credited. Please provide a map showing Cumulative Areas Credited within the project area.		
3 CAR 3 Document Reference: Monitoring Report – 23 June 2013 Standard Reference: VM0015 v1.1, Part 3, Task 1, 1.1	Project proponent listed tables that were essential to calculate ex post GHG emissions reductions, according with VM0015 and ex post emissions identified.  The following tables were included:	DNV GL Assessment 1 October 2015  Although some of the tables explicitly required by VM0015 are not presented in the
The results of monitoring shall be reported by creating ex post tables of activity data per stratum (Tables 9.a, 9.b and 9.c); per initial forest class icl (Tables 11.a, 11.b and 11.c); per post-deforestation zone z (Tables 13.a, 13.b and 13.c) and, where applicable, per category of land-use change ct (Tables 14.a, 14.b and 14.c).or ctz (Tables 19.a, 19.b and 19.c).	<ul> <li>Tables 9.a, 9.b and 9.c. Highlighting: VM0015, page 49, "Do this at least for the fixed baseline period, and, optionally, for the entire project crediting period"; and the project considers only one stratum (forest) to account for deforested areas.</li> <li>Tables 11. a (optional), 11.b and 11.c. Highlighting: VM0015, page 56, "Do this at least for the fixed baseline period, and, optionally, for the entire project crediting period"; and the project considers only one forest class to account for deforested areas.</li> <li>Tables 13.a (optional), 13.b and 13.c. Highlighting: VM0015, page 58, "Do this at least for the fixed baseline period, and, optionally, for the entire project crediting period"; and the Project considers only one Zone of post deforestation land use.</li> </ul>	monitoring report, the project proponent has provided justification for the exclusion of these tables based on contradictory statements in VM0015. Upon review of the provided tables in the revised monitoring report, all tables directly related to this monitoring period have been included. This finding is now closed.
The project proponent has omitted several tables from the monitoring report. Please include all	<ul> <li>Tables 25.a and b. Highlighting: There were no ex post stock decrease due to planned deforestation, because of the delay on initiating the Low Impact Logging</li> </ul>	



	Corrective action and/	Response by project participants	Verification conclusion
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	requests required tables in the	operations.	
	monitoring report. Please note the above list is not exhaustive and VM0015 requires tables additional to those listed above.	<ul> <li>The following tables were not included:</li> <li>Tables 14.a, 14.b and 14.c. These tables are only applicable when "Method 2" were used in sub-step 5 (page 59 of VM0015). As Project PDD (VCS) states, on its page 102) it was used "Method 1" on sub-step 5.</li> <li>Tables 19.a, 19.b and 19.c. These tables are applicable if soil organic carbon pool are included in the baseline (page 70) and it is necessary to calculate activity data per category (ct). Project does not include soil organic carbon pool.</li> <li>Table 26 is used for an optional accounting of significant carbon stock increase (pages 87 and 88). Even if the project could identify polygons representing areas of forest that will be subject to planned logging activities and have potential to grow after the periodical harvest cycle, there were a delay on the harvesting activities and no polygon was harvested and grown.</li> </ul>	
4	CAR 4  Document Reference:  Monitoring Report – 23  June 2013, Section 4  Standard Reference:  VM0015 v1.1, Part 3,  Task 1, 1.1  If the area (or a sub-set of it) affected by natural disturbances or manmade events generated VCUs in past verifications, the total net change in carbon stocks and GHG emissions in the area(s) that generated VCUs must be estimated, and an equivalent amount of VCUs must be cancelled from the VCS buffer.  The project proponent indicates that the total of emissions related to unavoidable unplanned deforestation is 56.351,0 tCO2e. Unplanned	The total carbon stock decrease due to unavoidable unplanned deforestation in the project area (Table 21.b.2) is related with part of the deforestation predicted under de baseline scenario (same agents and drivers) that the Project wasn't able to avoid, and it is not due to any catastrophic events, such as uncontrolled forest fires, hurricanes, earthquakes, etc, nor <i>drastic</i> man-made events, like terrorism or war (VM0015 v1.1, Part 3, Task 1, 1.3).  The total Carbon stock decrease due to unavoidable unplanned deforestation in the project area (Table 21.b.2) was used to calculate the "ex post carbon stock change in the project area under the project scenario" (Table 27).  To calculate "ex post net anthropogenic GHG emissions reductions", on table 36, the "ex post project carbon stock changes" from table 27(that already incorporates GHG emissions from unavoidable unplanned deforestation) is <i>discounted</i> from the baseline carbon stock estimations.  Therefore the "emissions related to unavoidable unplanned deforestation" is <i>already</i> being discounted from the baseline scenario in order to calculate the "net anthropogenic GHG emissions reductions". Just <i>cancelling it again</i> from the buffer	DNV GL Assessment 1 October 2015  The language provided in VM0015 is confusing and contradictory to the AFOLU requirements related to project emissions where project emissions are less than baseline emissions. The project proponent has demonstrated emissions reductions relative to the baseline for this monitoring period. Although man-made events affected the project area, the effect of these emissions relative to the baseline still results in emissions reductions.  Attempting to identify overlapping areas between credited areas from the previous monitoring period, as





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requests		
deforestation is a manmade event. The project proponent has not cancelled an equivalent amount from the VCS buffer. Please cancel the total net change in carbon stocks and GHG emissions in the area(s) from the VCS buffer.	Would be double discounting, on our point of view.  However, if you refers to overlapping areas of deforestation captured (ex post) during the monitoring period of 2012 and 2013 with areas credited during monitoring period of 2011, a new analysis were carried. Under this new analysis there are only 6.7 hectares overlapping (2.5 ha from 2012 ex post deforestation and 4.2 ha from 2013 ex post deforestation). Please see the MAP CAR 4, provided as an annex.  These overlapping areas represent very little compared with total deforestation (in the PA) observed in each monitoring year (128 hectares in 2012 and 2013). Should we <i>not account</i> for these overlapping hectares as "monitored carbon change in the Project Area" and discount it from the buffer secured in the past verification event? In tis case would we have just 121.3 hectares deforested for 2012 and 2013, and the rest of it (6.7 ha) would be discounted from the last secured buffer?	could be inferred from VM0015, would require that emissions from unplanned deforestation observed during the current monitoring period be deducted from the buffer account. In turn, this would reduce the amount of project emissions and therefore increase crediting for the current monitoring period. Effectively, there would be a transfer of buffer credits deposited from the previous monitoring period to fungible credits for the current monitoring period. Clearly this effect is not conservative and does not conform to the VCS requirements on
5 CAR 5 Document Reference:	Accounting for Market Effects is not applicable in the case of Jari/Amapá REDD+ Project. The project	buffer release. Therefore, this finding is closed.  DNV GL Assessment 1 October 2015
Project Description – 12 April 2013, Section 1.1, 3.4 and 5.1 Standard Reference: AFOLU Requirements	baseline does not include illegal logging that supply regional, national and/or global timber market.  Along all Project Description (VCS), with emphasis on Section 1.1 (Summary: "Despite the social and	Based on field observations and interviews during the site visit, illegal logging
3.4, Section 3.6.4, 4.6.16 VM0016, Part 1, Section 1.3	environmental importance of the Vale do Jari, this region is threatened by agricultural and cattle activities and human settlements as well as large infrastructure projects.") and section 2.4 Baseline	appears only to supply familial requirements and does not contribute to any regional, national or
Market leakage assessments shall occur at validation and verification.	Scenario (Step 3 of VM0015) the project proponent attributed 100% of deforestation to squatters (main agent) coming from other parts of Brazil (migration is one of the drivers) and clear cutting the forest as a mean to establish "tenure" and to develop small	global markets. Therefore, this finding is closed.
Where the project baseline includes illegal logging activities that supply regional, national and/or global timber markets, domestic market leakage shall be	scale agriculture and pastures for their subsistence. In this section is also explained that the main underlining causes are public policies on infrastructure and colonization. Which means that illegal logging (with commercial proposes) has a minor or inexistent role in the baseline scenario	
quantified using the market leakage discount factors for IFM projects set out in Sections 4.6.13 and 4.6.14. The market	Besides, as mentioned in section 3.4 of project Description, Amapá Sate doesn't have a logging industry well developed, even when compared with other Amazon states, and the wood extracted from Amapá represents 1% of harvested wood in the	



Corrective action and/	Response by project participants	Verification conclusion
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leakage effects associated with stopping illegal logging need not be considered where GHG emissions are not included in the baseline and GHG credits from	Amazon (IMAZON; SFB, 2010), which does not characterize it as a timber zone. A Market leakage analisys would make more sense if we were talking about Pará, Mato Grosso and Rondônia states. (Please, also see <a href="http://imazon.org.br/a-atividade-madeireira-na-amazonia-brasileira-producao-receita-e-mercados/#ancora5">http://imazon.org.br/a-atividade-madeireira-na-amazonia-brasileira-producao-receita-e-mercados/#ancora5</a> )	
stopping such activities are not claimed.	Additionally there will not be any activities shifting within the project proponent's operations (AFLOU,	
The project description indicates that 1) the baseline scenario includes illegal logging and 2) the project is preventing illegal logging. Per the exceptions provided in VM0015, accounting for carbon stored in wood products is not required	section 4.6.13), project proponents still intent to develop low impact logging operations in the Project Area, and continue to operate with the same harvest rate on its other area in Pará (maximum of 20 m³ per hectare on each Annual Production Unit).	
as harvesting in the project scenario is greater than harvesting in the baseline scenario.  Multiple reports on illegal		
logging in the Brazilian Amazon indicate that illegally logged timber is destined for national and international markets.		
Neither the Project Description nor Monitoring Report establishes evidence to the contrary.		
Although wood products are not accounted for in the baseline per the exception of VM0015, the GHG emissions from		
illegal logging are inherently included in the baseline and are credited by stopping such		
activities. Void any new evidence for market supply, please account for Market Effects leakage by		
using the market leakage discount factors for IFM projects.		





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6 CAR 6	According with the Project Description the VT0001	DNV GL Assessment
Document Reference:	approved tool was applied and 3 different credible	2 December 2015
Non-Permanence Risk	alternative scenarios were identified:	
Report – 23 June 2015,		The project proponent has
Section 1 and 2	i) Continuation of the land use prior to the Project	identified credible
Project Description – 12	implementation (baseline scenario), with the	alternative land use
April 2013, Section 2.5	deforestation caused by squatters, subsistence	scenarios to the proposed
Standard Reference:	farming, small scale agricultural crops, pastures and	VCS AFOLU project
VCS Standard 3.5,	demarcation of property boundaries;	activity. The project
Section 2.4	ii) Project activity not registered as a VCS AFOLU	proponent has outlined
VT0001, 2.1	project, conducing activities of sustainable forest	the credible alternative
	management with an FSC certification and	land use scenarios in
Identify credible	complementary activities to contain and monitor the	detail and has updated
alternative land use	deforestation caused by the agents of the scenario	the Project Description to
scenarios to the proposed	(i), such as specialized professionals, purchasing of	include these details.
VCS AFOLU project	satellite images, REDD+ specific technical studies,	<del>-</del> 1 (4)
activity.	intensified surveillance and property security, social	The use of the
Description the city visit because	activities and alternative income generation and	surveillance component
During the site visit, based	environmental education with the communities, but	without the necessity of
on interviews with Jari	without the additional revenue from the carbon	the VCS AFOLU project
management, it was identified that the	credits sale. Therefore, the economic viability of the	has been justified. The
surveillance program was	management was to be reduced, along with the probability of the complementary activities to exist	project proponent has discussed and included
implemented prior to the	over time;	an investment analysis
project start date, is	iii) Sustainable Forest Management only, without	demonstrating the
funded outside of direct	REDD+ additional activities, conducing FSC-	financial superiority of an
carbon finance and is	certified forest management activities <b>without</b> the	alternative land use
likely to continue in the	proposed additional activities with aim of reducing	scenario over the VCS
absence of the project.	deforestation, such as, but not limited to, specialized	AFOLU project thus
Therefore, it seems the	professionals, satellite images acquisition, REDD+	demonstrating the
land use associated with	specific technical studies, intensification of	project's additionality.
the implementation of the	property security and land surveillance, social	,
surveillance program is a	activities and alternative income generation and	The Methodology
credible alternative to the	environmental education with the communities.	Deviations section of the
proposed VCS AFOLU		Project Description has
project activity. However,	Please, note that the proposed scenario (ii) included	also been updated to
this scenario is not	the "intensification" of property security and land	include a brief discussion
identified in the	surveillance. But this activity was already to happen	concerning these details.
application of VT0001.	in at least minimum terms under the identified	
	scenario (iii) with sustainable forest management	Therefore, the finding is
Please fully apply VT0001	only. The surveillance comes together with Jari's	closed.
and identify all credible	responsibility for its Legal reserve and also because	
land use scenarios	of the sustainable forest management activities,	
including the scenario that	especially in the Pará side, and it is in place in the	
may result from the	Amapá side, as well, once the Sustainable Forest	
continued implementation	Management is also expected to happen in the	
of the surveillance	Project Area, though it has been delayed. And It has	
program. Or, alternatively,	been delayed exactly because of some of the barriers identified with the use of VT0001 in the	
please justify why the land use scenario resulting		
from the continued	common practices analysis. In that manner the surveillance in place, without the financial	
implementation of	support of the carbon project, was already	
surveillance program is	predicted under scenario (iii).	



Corrective action and/	Response by project participants	Verification conclusion
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not credible.		
Please consider the original response to CL 5 in response to this finding.	Additionally, under the Project scenario in this monitoring period (2012 and 2013) some improvement was done since now, every year, Jari Group Surveillance team ground checks every deforestation polygon identified through the REDD+ monitoring. Previously the ground check was done only randomly (through the patrolling) or through complaints/denounces.  No much improvement was able to be done so far because the majority of the carbon credits sale was accomplish in 2014 and 2015, when the discussions regarding where the "money" will flow and how started.	
	During this discussions a set of meeting were carried with different parts, starting with a strategic workshop that was hold in November 2014 with the Directors of Jari Group and Biofílica, when it was decided that the totality of Jari Group' share would be reinvested in the project activities, which included activities to climate, and therefore investments in surveillance. (Please see the Consultation Memory and minutes of the Strategic Workshop)	
	As a result of this meeting, and others that followed, a proposal was built of reinvestments guidelines on the Project, so called the "Socio-environmental Fund". The Fund is a bank account to be created with the single propose of receiving the results of the carbon credits sale (Jari Group' share) and reinvesting them according with the set up guidelines and governance structure. On this proposed structure the investments are going to be directed to 3 different, though synergic, strategic lines: Climate, Community and Biodiversity, besides costs with management and maintenance. (See the REDD+ account – ppt and juridical structure).	
	During 2015 further discussions were made in order to detail the investment proposal, specially considering the resources that are already available (results from the previous vintage sale). Only considering these resources an amount of 50 thousand reais will be invested directly on the Surveillance Department in 2016. A detailed financial planning was made until 2021 (10 years of the project). And until 2021 at least the same amount every year will be destined to this Department. (See Investment Plan Workshop minute and financial spreadsheet.)	

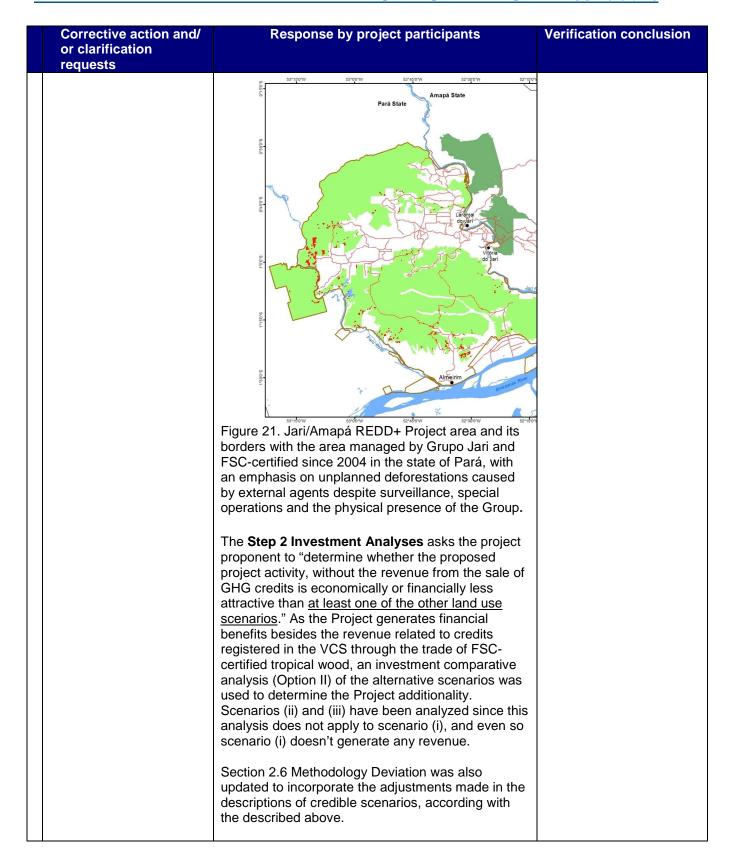


Response by project participants	Verification conclusion
Thus, in the project scenario that is a plan of directly funding the surveillance activity, at least partly in the first years of reinvestment.	
R2 – November 17 <sup>th</sup> 2015	
The VCS Project Description was updated to turn explicit the existence of the property surveillance program in scenarios (i), (ii) with improvement, and (iii).	
Now it is stated as follows:	
Among the realistic and credible scenarios for the land use to take place within the limits of the Project, in the absence of the AFOLU Project activity registered in the VCS, the following have been considered:	
(i) Continuation of the land-use prior to the Project implementation (baseline scenario): deforestation caused by squatters (subsistence farming, small scale agricultural crops, pastures and demarcation of property boundaries). Between 2000 and 2010 36,204 hectares were deforested in the Project reference region for the implementation of these activities (see Section 2.4, Step 3 in VCS_PDD_English_v.2.docx). For the next 30 years, a loss of 79,129 hectars has been projected in this scenario, of which 11,070 hectares are to be deforested within the Project area (see Section 2.4, Part 2 – Step 4 in VCS_PDD_English_v.2.docx)It is important to highlight that even in the baseline scenario the property surveillance program was already in place. In order to accomplish with the Brazilian Forest Code, Jari Group is responsible for the maintenance of the native forest cover in the area designated as Legal Reserve. In that manner since Grupo Jari acquisition from the Brazilian Govern the Property Surveillance Program was on of the first things instituted. However, as it can be observed in Step 2.3 Definition of categories of land-use and land-cover change (Results of the historical analysis of land-use and land-cover change) and Step 3 Analysis of agents. Drivers and underlying causes of deforestation and their likely future development, even with the property surveillance action, without any other complementary activity in place, the unplanned deforestation still happened between 2000 and 2010, as described in the baseline scenario.	
(ii) Project activity not registered as a VCS	
	Thus, in the project scenario that is a plan of directly funding the surveillance activity, at least partly in the first years of reinvestment.  R2 – November 17 <sup>th</sup> 2015  The VCS Project Description was updated to turn explicit the existence of the property surveillance program in scenarios (i), (ii) with improvement, and (iii).  Now it is stated as follows:  Among the realistic and credible scenarios for the land use to take place within the limits of the Project, in the absence of the AFOLU Project activity registered in the VCS, the following have been considered:  (i) Continuation of the land-use prior to the Project implementation (baseline scenario): deforestation caused by squatters (subsistence farming, small scale agricultural crops, pastures and demarcation of property boundaries). Between 2000 and 2010 36,204 hectares were deforested in the Project reference region for the implementation of these activities (see Section 2.4, Step 3 in VCS_PDD_English_v.2.docx). For the next 30 years, a loss of 79,129 hectars has been projected in this scenario, of which 11,070 hectares are to be deforested within the Project area (see Section 2.4, Part 2 – Step 4 in VCS_PDD_English_v.2.docx)It is important to highlight that even in the baseline scenario the property surveillance program was already in place. In order to accomplish with the Brazilian Forest Code, Jari Group is responsible for the maintenance of the native forest cover in the area designated as Legal Reserve. In that manner since Grupo Jari acquisition from the Brazilian Govern the Property Surveillance Program was on of the first things instituted. However, as it can be observed in Step 2.3 Definition of categories of land-use and land-cover change (Results of the historical analysis of land-use and land-cover change) and Step 3 Analysis of agents. Drivers and underlying causes of deforestation and their likely future development, even with the property surveillance action, without any other complementary activity in place, the unplanned deforestatio



Corrective action and/ or clarification requests	Response by project participants	Verification conclusion
	AFOLU project: conducting activities of sustainable forest management with an FSC certification and complementary activities to contain and monitor the deforestation caused by the agents of the scenario (i), described in Section1 and Section 6 of VCS_PDD_English_v.2.docx For the Project to be effective regarding the deforestation containment and monitoring in the region and local socio economic development, specific investments for such activities will be necessary (specialized professionals, purchasing of satellite images, REDD+ specific technical studies, intensified surveillance and property security, social activities and alternative income generation and environmental education with the communities located within the Project area or in the surrondings). These are unnecessary extra investments and usually not made by the certified forest management. Therefore, the economic viability of the management is reduced without the additional revenue from the trading of credits registered on the VCS.	
	(iii) Sustainable Forest Management only, without additional REDD+ activities: conducting FSC-certified forest management activities without additional activities with the aim of reducing deforestation, such as, but not limited to, specialized professionals, satellite images acquisition, REDD+ specific technical studies, intensification of property security and land surveillance, social activities and alternative income generation and environmental education with the communities located within the Project area or in the surroundings. The Project area is bordered by one of the largest projects of FSC-certified forest management of native species in the world, also operated by Grupo Jari since 2004 (Figure 21). It is important to note that the property surveillance, besides being Jari Group strategy to comply with the Brazilian Forest Code, also comes together with the sustainable forest management activities in order to shield the forest that will be managed, which means the surveillance activities are also expected in this scenario though not intensified (alike what happens in Pará SFM conducted by Jari Group).	





v3.3



	Corrective action and/	Response by project participants	Verification conclusion
	or clarification		
7		The methods used to monitor LU/LC change	DNV GL Assessment
7		The methods used to monitor LU/LC change categories were similar to those explained in part 2, step 2.4 and part 2, step 2.5. The methods used were restated and presented according with the items described in the Project Description. The classification accuracy assessment was previously performed through ground checking of 100% of the deforestation polygons identified through PRODES 2012/2013. In order to used the same method described in the Project Description the classification accuracy assessment was also performed by analyzing the overall accuracy and kappa index, obtained from a confusion matrix through 53 points distributed randomly. The Monitoring Report dated 11 November was updated on its section 3.2.2 Monitoring of Land-use and Land-cover Chances, pages 33 and 34 to address this finding.  R2-December 04, 2015.  In order to used the same method described in the Project Description in regard of classification accuracy assessment and also to reflect the exactly same LU/LC classes identified in the Project Description, it was performed the analyze of the overall accuracy through a stratified randomization approach that included the even the less representative classes (Hydrography and Non-forest Vegetation represents, respectively 0.23% and 0.04% of the monitored region), obtained from a confusion matrix through 66 points, being 53 points randomly distributed in classes Anthropogenic Vegetation (post-deforestation class) and Forest and additional 13 points randomly assigned to Hydrography and Non-forest Vegetation classes. The Monitoring Report dated 04 December 2015 was updated on its section 3.2.2 Monitoring of Landuse and Land-cover Chances, pages 33 and 34 to address this finding.	DNV GL Assessment 2 December 2015  The project proponent has demonstrated that the methods used to monitor LULC change and assess accuracy were carried out similarly as described in the VM0015 methodology.  The Project Description now includes a similar step by step description for procedures carried out to process and classify LULC imagery as is written in part 2, step 2.4 of the VM0015 methodology.  Likewise, the project proponent has now updated its accuracy checking methods to reflect those of the methodology. The Project Description includes the description and matrix results from the classification map accuracy analysis, with steps described in a similar manner as the methodology in part 2, step 2.5.  The monitoring report also includes summary descriptions of the LULC monitoring and accuracy assessment methods. However, the monitoring report does not provide the results of the accuracy assessment nor does it show the number of samples dispersed per thematic class.
			Per Congalton (1991), an
			adequate number of samples for each map

v3.3



Corrective action and/	Response by project participants	Verification conclusion
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		class must be gathered so there is a valid statistical representation of each class. Figure 1 in the Monitoring Report shows 4 thematic groups but these are not represented in a confusion matrix in the report and it is unclear if all thematic groups were represented in the analysis.
		Thus the finding remains open.
		DNV GL Assessment 4 December 2015
		The Monitoring Report (Amapa_MonitoringRepor t_2012e2013_v.3.2.doc) now includes a more indepth explanation of the accuracy assessment that was carried out along with its results. A discussion of accuracy percentages is provided along with a confusion matrix comparing user and producer accuracy as well as a map showing some sample points. The matrix and map demonstrate that sample points were distributed within all four of the indicated land use classes.
		The finding is closed.
8 CL 1 Document Reference: Non-Permanence Risk	The Brazilian Forest Code (BFC) were established in 1965 and reviewed in 2012. This law requires that	DNV GL Assessment 7 October 2015
Report – 23 June 2015, Section 1 and 2 Project Description – 12	landowner set aside certain amount of their area as "Legal Reserve (LR)" depending on the Biome the property is located, in the Amazon, for instance,	During the site visit, based on interviews with Jari employees and

v3.3





Corrective action and/	Response by project participants	Verification conclusion
Corrective action and/or clarification requests  April 2013, Section 2.5  Standard Reference:  VCS Standard 3.5, Section 2.4  AFOLU Non-Permanence Risk Tool 3.2, Section 2.3.3 and 2.3.4  VCS Validation  Verification Manual 3.1, Section 3.2.2  The risk report identifies that the project area is protected by the Brazilian Forest Code (Law no 12.651 of 2012/05/25) as legal reserve and it must be designed to sustainable use and exploitation of forest.  Please clarify how the project is additional per the requirements of the VCS on Regulatory Surplus provided that is protected by law.	80% must be conserved with native vegetation (sustainable forest use is allowed).  However its well know in Brazil, and it is corroborated by Soares-Filho et al (2014) and Sparovek et al (2011), that enforcing the BFC was extremely challenging, specially in the Amzon, and Brazil has a huge debt of LR, that were illegally deforested, even by private land owner on their own land. The private sector, specially the agribusiness, "has historically taken advantage of the government's relatively weak enforcement of environmental laws" (Soares-Filho et al, 2014).  Adding to that the enormous rate unconformity with the BFC was one of the arguments to the revision of the law during 2011 and 2012. Different factors explain the low conformity with the law, among then changes in the government policies along the years (and with them changes in the requirements), inexistence of facilitating mechanisms to compliance, weak enforcement and surveillance and disagreement of the agriculture sector regarding the restrictions (Sparovek et al, 2011).  Therefore the Brazilian Government it self recognized the lack of enforcement regarding the application of the Brazilian Forest Code and open intense periods of revision, public comment and discussions to improve the law and guarantee its application.  It is important to mention that the "New FC", as it turned to be known, still requires the protection of	management regarding the surveillance program, Jari Cellulose is responsible for forest loss and the Legal Reserve requirements of the property. The surveillance program was established before the start date, is not directly funded by carbon finance and includes the submission of bulletin reports to enforcement agencies for the purpose of enforcing the Brazilian Forest Code. Therefore, although enforcement agencies may lack resources to monitor and enforce the code, Jari Cellulose maintains the resources to assist enforcement agencies through the long-standing surveillance program.  Please see new finding CAR 6. This finding is closed pending the response to CAR 6.  DNV GL Assessment 2 December 2015
the requirements of the VCS on Regulatory Surplus provided that is	and disagreement of the agriculture sector regarding the restrictions (Sparovek et al, 2011).  Therefore the Brazilian Government it self recognized the lack of enforcement regarding the application of the Brazilian Forest Code and open intense periods of revision, public comment and discussions to improve the law and guarantee its application.  It is important to mention that the "New FC", as it turned to be known, still requires the protection of the Legal Reserve but enabled new mechanisms to ensure compliance of private owner and agribusiness, introducing concepts like payment for environmental services and forest carbon, as a	to assist enforcement agencies through the long-standing surveillance program.  Please see new finding CAR 6. This finding is closed pending the response to CAR 6.  DNV GL Assessment
	mean to provide financial incentives to producers willing to apply the law (Soares-Filho et al, 2014).  Thus, the Project in deed has a "legal binding commitment to continue management practices that protect the credited carbon stocks". Nonetheless, considering Brazilian current capacity of law enforcement, having a "legal binding commitment" does not assure that every landowner will respect it.  R2 (October 30 <sup>th</sup> ).  Please, see response to CAR 6.	



	Corrective action and/	Response by project participants	Verification conclusion
	or clarification	response by project participants	
9	requests	The harvesting has not occurred in the Project Area during the monitoring period once project Proponents are still waiting for the Sustainable Forest Management Plan approval. This information was presented in the table 2 of the monitoring report v.1, and was made more explicit in the monitoring report v.2.	DNV GL Assessment 1 October 2015  During the site visit, no legally sanctioned harvesting in the project area was observed.  Provided that wood products are not accounted for the expectation of VM0015 where logging in the project scenario is expected to be greater than the baseline scenario, there is concern that wood products in the project scenario are not greater than the baseline scenario because harvesting has not occurred. However, during the site visit, it was confirmed that harvesting is eminent and likely during the following monitoring period, assuaging this concern. This observation, conjoined with the observation that little or no illegal logging exists in the baseline, is sufficient to close this finding.
1	CL 3 Document Reference: Monitoring Report – 23 June 2013, Section 2.1 Project Description – 12 April 2013, Section 1.1 Project Description – 12 April 2013, Section 1.8 Standard Reference: VM0015 v1.1, Part 3, Task 1, 1.1	The complete table of activities was incorporated as an annex to the monitoring report v.2, for both components: the certified forest management and the REDD+ Activities.	However, see FAR 1.  DNV GL Assessment 1 October 2015  The revised Monitoring Report contains an annex listing the implementation status of all activities. This finding is closed.
	The list of project activities provided in the Monitoring Report does not include all the project activities		



	Corrective action and/	Response by project participants	Verification conclusion
	or clarification		
	requests		
	listed in the Project Description. Therefore,		
	the implementation status		
	of some activities is		
	unclear. Please describe		
	the implementation status		
	of all project activities.		DNN 61 4
1		Additional information was provided regardings	DNV GL Assessment
	Document Reference: Monitoring Report – 23	Additional information was provided regarding: Deforestation monitoring in 2012 and 2013	7 October 2015
	June 2013, Section 2.	("Deforestation Bulletin"), Social activities realized,	As observed during the
	Standard Reference:	research projects incentivized by the Project, and	site visit through
	VM0015 v1.1, Part 3,	Project financial spreadsheet.	community interviews and
	Task 1, 1.1		as provided by the project
	Diago provide all mana		proponent, there is
	Please provide all maps and records generated		evidence that the project activity has been
	during the monitoring		implemented during the
	period to demonstrate that		monitoring period. This
	the AUD project activity		finding is closed.
	has actually been		
4	implemented. CL 5		DNIV CL. Accessment
1:	Document Reference:	The activity developed under the monitoring period	DNV GL Assessment 1 October 2015
	Monitoring Report – 23	that aims to immediately avoid GHG emissions is	1 October 2013
	June 2013, Section 2.1	the regular property surveillance, carried by Jari	The project proponent
	Project Description – 12	Group. This activity regards to the "Land Inspection"	indicates that the
	April 2013, Section 1.1	described in the project Description, "Section 5.1.2 –	implementation of the
	Project Description – 12 April 2013, Section 1.8	Project Environmental Activities".	surveillance program qualifies as the
	Standard Reference:	The "Land Inspection" is based on regular patrolling	intervention that
	VM0015 v1.1, Part 3,	to ensure the protection of the forest under Jari's	permanently precludes
	Task 1	control, along with prevention of forest fires (through	further emissions from the
	VCS 3.5, 2.3.1	surveillance and workshops given to communities),	project area. This finding
	Please indicate which	prevention of illegal deforestation and hunting and	is closed.
	program activities that	fishing, keeping a health relationship with communities, and reporting to and supporting legal	
	were implemented during	authorities whenever necessary.	
	the monitoring period	,	
	qualify as interventions	Land inspection procedures was made available.	
	that permanently preclude	Adding to that the recent DEDD:	
	further emissions from the project area.	Adding to that the recent REDD+ monitoring activities, the patrolling team receives every year	
	project area.	Biofilica's Annual Deforestation Bulletin. The	
		Bulleting identifies (through PRODES data) every	
		deforestation coordinate and the patrolling teams	
		check 100% of them in the field. This activity	
		allowed them to adapt their work over the years and	
		to perceive priority areas to conduce patrol.	
		In parallel the social activities developed by the	
		Project (better explained on the CCB Project	



Corrective action and/	Response by project participants	Verification conclusion
or clarification		
requests	Description) aim to help local smallholders to develop their agricultural technics in harmony with forest conservation. This intervention is associated with an educational and awareness growing process therefore may not have an "immediate" impact but once it is effective and the awareness crosses generations it trends to be "permanent".  Regarding VCS 3.5, section 2.3.2 that says: "Project activities are eligible for immediate crediting of future avoided emissions ():  1) The project immediately avoids future streams of GHG emissions as a result of an upfront intervention that permanently precludes further emissions from the source. () A REDD Project would not qualify for immediate crediting because future streams of GHG emissions are not permanently precluded". Considering this quote we had interpreted that REDD projects do not immediate credit future streams because its GHG emissions reduction may not be permanently precluded, thus REDD interventions wouldn't have to "permanently preclude further emissions".	
1 CL 6 Document Reference: Monitoring Report – 23 June 2013, Section 2.1 Project Description – 12 April 2013, Section 1.8 Standard Reference: VM0015 v1.1, Part 3, Task 1  Please provide copies of management plans for the project area and demonstrate that project activities implemented during the monitoring period are consistent with these management plans and the Project Description.	The following documents were provided:  • The Sustainable Forest Management Plan (SFMP), relative to the low impact logging operation in the project area;  • Project Description Document (2013) regarding VCS and VM0015 methodology requirements, focus on Project's GHG Emissions Reductions;  • Project Description Document (2015) regarding CCBS requirements focus on activities designed for communities and biodiversity.  Regarding the SFMP, even though Project proponents were not able to initiate any harvesting operation, all the activities developed so far (the pre operational activities) were implemented following the description on the management plan.  The activities implemented were related with the forest inventory and planning activities, as mentioned on the Monitoring Report (2012 and 2013). Including, as described in the VCS Project Description, the same inventory protocol predicted in the SFMP was applied to estimate carbon stock in the project area.  The activities implemented under the REDD+Component as described in the monitoring report were also implemented according with the VCS Project Description, especially those activities	DNV GL Assessment 1 October 2015  Copies of the management plan for the project area were provided as the SFMP, VCS PD and CCB PDD. During the site visit, evidence was observed through interviews and field inspection to confirm the activities implemented during the monitoring period are consistent with these plans and the Project Description. This finding is now closed.



	Corrective action and/	Response by project participants	Verification conclusion
	or clarification		
	requests		
		related with deforestation LU/LC monitoring.  New social activities were implemented due to adaptive management that takes place in the project. Project proponent had to adapt its proposal in order to consider expectations and needs of local communities. These new activities are described in the monitoring report and in the CCB Project Description, also provided to the VVBs.	
1	CL 7	There isn't any GHG program approved by the	DNV GL Assessment
	<b>Document Reference:</b> N/A	national or subnational government.	1 October 2015
	Standard Reference: VM0015 v1.1, Part 3, Task 1  Please indicate whether during the monitoring period the project area is located within a region that is subject to a monitoring program that is approved or sanctioned by the national or sub- national government.	On the Federal level exists the Interministerial Working Group created with the goal to establish a National REDD+ Program (http://www.mma.gov.br/educacao-ambiental/educomunicacao/item/8415-grupo-detrabalho-interministerial-sobre-redd). But this Working Group has not sanctioned any regulatory program for REDD+ so far (http://www.mma.gov.br/redd/index.php/en/). Biofilica has participated in all relevant public consultation carried out by Brazilian Government that aimed to move forward on a National Climate Change Policy and National REDD+ Framework, order to assure that Jari/Amapá REDD+ Project would meet the requirements of the national level (http://blog.itamaraty.gov.br/consulta-climahttp://blog.itamaraty.gov.br/consulta-clima/133-negociacoes-na-unfccc-relatorio-final-da-consulta-asociedade-civil-brasileira).	Based on interviews during the site visit with regional authorities, the project is not located within a region that is subject to a monitoring program that is approved or sanctioned by the national or sub-national government. Therefore, this finding is closed.
		On the subnational level of Amapá State, the environmental Secretariat created a Forum of Climate Change and Environmental Services of Amapá. This forum aims to engage relevant stakeholders (governmental, private and non governmental) to discuss Climate Change and Environmental Services in the state and to propose a legal framework to the subnational level ( <a href="http://www.ief.ap.gov.br/conteudo/lista_documento_s/39">http://www.ief.ap.gov.br/conteudo/lista_documento_s/39</a> ). Biofílica participated in almost every meeting in order to assure that Jari/Amapá REDD+ Project would meet the requirements of the subnational level. At the end of 2014 Amapá Government consolidated a final proposal of legal subnational framework, but due to election process it didn't move forward to the legislative discussion. In parallel Amapá Government signed a Memorandum of Understanding with Verified Carbon Standard in June 2014 to develop a Jurisdictional Program for the State ( <a href="http://ief.ap.gov.br/conteudo/lista_noticias/491">http://ief.ap.gov.br/conteudo/lista_noticias/491</a> ).	



	Corrective action and/ or clarification requests	Response by project participants	Verification conclusion
	Toquosio	Biofílica has also participated on some of the meetings to discuss the design of Amapá's deforestation baseline and its MRV. Amapá Jurisdictinal Program is not consolidated nor approved yet, thus our monitoring period in this verification event covers only the years of 2012 and 2013 (before the MOU).  All the minutes of meetings attended by Biofilica and mentioned news were provided.	
1	Document Reference: N/A	R1. The methods used to monitor LU/LC categories	DNV GL Assessment 1 October 2015
	Standard Reference: VM0015 v1.1, Part 3, Task 1, 1.1 VM0015 v1.1, Part 2, Step	were similar to those explained in part 2, step 2.4 and part 2, step 2.5. and is now explicated on the Monitoring Report v.2.	The accuracy assessment is now described in the Monitoring Report, version 2. However the
	2.4 and 2.5  Please describe how methods used to monitor LU/LC change categories and to assess accuracy during the monitoring period are similar to those explained in part 2, step 2.4 and part 2, step 2.5.	The accuracy assessment was carried out by checking in the field every deforestation polygon mapped. It is now better explained on the Monitoring Report v.2. Every deforestation polygon was checked and registered in the "Annual Deforestation Bulletin", issued every year. "Annual Deforestation Bulletin 2012"and "Annual Deforestation Bulletin 2013" were provided to the VVB.	project proponent has not described how this assessment is similar to that explained in in part 2, step 2.4 and part 2, step 2.5. Please describe how methods used to assess accuracy during the monitoring period are similar to those explained in part 2, step 2.4 and part
		R2 (October 30 <sup>th</sup> ).  The methods used to monitor LU/LC change	2, step 2.5. This finding remains open.
		categories were similar to those explained in part 2, step 2.4 and part 2, step 2.5. The methods used were restated and presented according with the items described in the Project Description. The classification accuracy assessment was previously	See CAR 7.  DNV GL Assessment 2 December 2015
		performed through ground checking of 100% of the deforestation polygons identified through PRODES 2012/2013. In order to used the same method described in the Project Description the classification accuracy assessment was also	This finding remains open. Please see DNV GL Assessment for CAR 7.
		performed by analyzing the overall accuracy and kappa index, obtained from a confusion matrix through 53 points distributed randomly. The Monitoring Report was updated on its section 3.2.2 Monitoring of Land-use and Land-cover Chances,	DNV GL Assessment 4 December 2015  Per the closing of the finding related to CAR 7, this finding is now closed.
		pages 33 and 34.	this finding is now closed.



	Corrective action and/ or clarification	Response by project participants	Verification conclusion
1	requests CL 9 Document Reference: N/A Standard Reference: VM0015 v1.1, Part 3, Task 1, 1.1 Please provide the results of accuracy assessments on all LUL/LC change maps created as part of monitoring.	The results of accuracy assessments on all LU/LC change maps created as part of monitoring were presented in the "Annual Deforestation Bulletin 2012"and "Annual Deforestation Bulletin 2013", and were provided to the VVB.  R2 (October 30 <sup>th</sup> ).  The methods used to monitor LU/LC change categories were similar to those explained in part 2, step 2.4 and part 2, step 2.5. The methods used were restated and presented according with the items described in the Project Description. The classification accuracy assessment was previously performed through ground checking of 100% of the deforestation polygons identified through PRODES 2012/2013. In order to used the same method described in the Project Description the classification accuracy assessment was also performed by analyzing the overall accuracy and kappa index, obtained from a confusion matrix through 53 points distributed randomly. The Monitoring Report was updated on its section 3.2.2 Monitoring of Land-use and Land-cover Chances, pages 33 and 34, in order to include the results of accuracy assessments on all LU/LC.	DNV GL Assessment 2 October 2015  The results of the accuracy assessment have been provided but the methods used to assess accuracy are not similar to those explained in part 2, step 2.4 and part 2, step 2.5 of the Project Description. This finding remains open pending the response to CAR 7.  DNV GL Assessment 2 December 2015  This finding remains open. Please see DNV GL Assessment for CAR 7.  DNV GL Assessment for CAR 7.  DNV GL Assessment 4 December 2015  Per the closing of the finding related to CAR 7, this finding is now closed.
1	CL 10 Document Reference: Project Description – 12 April 2013, Section 1.11 Standard Reference: VM0015 v1.1, Part 3, Task 1, 1.1 AFOLU Requirement 3.4, Section 3.1.3  Please provide evidence that the implementation of the project activities has not lead to the violation of any applicable law, regardless of whether or not the law is enforced.	As it may be seen at FSC website  (http://info.fsc.org/details.php?id=a0240000005sV5x  AAE&type=certificate&return=certificate.php) and on the FSC annual verification reports provided for 2012 and 2013, Jari Grupo maintained its quality standard for the forest management, and compliance with all applicable laws is one of FSC's most important principle (Principle 1 – Compliance with Law and FSC principles). According with Jari/Amapá Project Description Grupo Jari has a FSC certification since 2014 and its certification encompasses both areas in Pará and Amapá (715,341.56 hectares). FSC carries out annual verifications of each certificated area, and Jari Florestal is not and exception. Annual verifications were carried during 2012 and 2013 and compliance with law requirements was one of the checked criteria. Moreover Grupo Jari has recently gone through a recertificated area under FSC is submitted through a complete and intense auditing process the covers	DNV GL Assessment 2 October 2015  Based on observation made during the site visit, the findings of prior FCS certification reports and interviews with regional authorities, no evidence was observed that the project activities have led to the violation of ant applicable law. This finding is closed.



	Corrective action and/	Response by project participants	Verification conclusion
	or clarification		
	requests	for every FSC's principles and criteria (including law	
		compliance – The first FSC Principle), and Grupo	
		Jari achieved successfully the recertification.	
1	CL 11 Document Reference: Project Description – 12 April 2013, Section 6 Standard Reference: AFOLU Requirement 3.4, Section 3.1.3  Project proponents shall identify potential negative environmental and socioeconomic impacts and shall take steps to	Even though the Project Area has not been harvested all the procedures planned in the Sustainable Forest Management Plan and in the Project Description were performed in order to mitigate negative socio-economic impacts.  The negative socio-economic impacts related with the sustainable forest management activities (RIL) did not happen once there were no harvesting activities during this monitoring period. The exceptions of mitigation activities implemented even without the harvesting activities were: the monitoring of fauna conservation carried out in partnership	DNV GL Assessment 1 October 2015  Based on observations from the site visit, including community interviews, several potential negative environmental and socioeconomic impacts may occur as a result of some project activities, including but not limited to, the
	mitigate them. Additional standards such as the Climate, Community & Biodiversity Standards (CCBS) or Forest Stewardship Council	Universities of Lavras and Lancaster; forest cover monitoring and land inspection; and preventions and control of forest fires. The monitoring reports were provided.  Considering negative socio-economic impacts	surveillance program and forest extraction. Please identify potential negative impacts and take steps to mitigate them.
	(FSC) certification may be applied to demonstrate social and environmental	related with REDD+ specific activities, the main activity implemented is the rural extension and technical assistance, that is it self a mitigation	This finding remains open.
	benefits beyond GHG emissions reductions or removals.	measure to the negative impacts caused by migration process together with the land inspection, as described in the Project Description (VCS), section 6.2.	DNV GL Assessment 2 December 2015  The project proponent has
	Please provide evidence		further identified potential
	that steps have been taken to mitigate potential	Taking into account the most recent Project Description Document, submitted to CCB, besides	negative environmental and socio-economic
	negative socio-economic impacts.	negative impacts related with the low impact forest management and the population increase, other	impacts that may result from project activities and
	ппрасіз.	possible negative impact is the time the producers	has provided a more in-
		engaged with the project have to dedicate to participate on project activities. This was mitigated by election of weekdays favorable to most of the	depth analysis of these impacts along with routes for possible mitigation.
		producers, and since their participation is totally voluntary they can simply skip the meetings if they are not hold in a convenient time and day. Rural	The project proponent has also provided evidence
		extension and technical assistance activity, along	that steps have been
		with others social activities carried out by the Project Proponent are reported on Fundação Jari activities' report (provided to the VVB).	taken to mitigate potential negative socio-economic impacts. However, these
			impacts and options for possible mitigation have
		R2 (October 30 <sup>th</sup> ).	been discussed in this document but need to be
		Initially the negative impacts identified were related directly with the harvesting operations (e.g. smoke,	included in the Project Description and



Corrective action and/	Response by project participants	Verification conclusion
or clarification requests		
or clarification	noise and residues), population migration due to the employment opportunities, and possible negative impacts from Fundacão Jari activities, such as time invested by the producers to attend Project's meetings and workshops.  After the validation of the Jari/Amapá REDD+ Project, through an FSC demand, Jari group carried out an assessment of impacts from all its forestry operations.  Regarding the Sustainable Forest Management of the Native Forest the activities evaluated as potential source of impacts are:  - Forestry inventory: disturb to the communities through the opening of new roads; disturb to the communities due to the coming of illegal hunters - Felling and sawing trees: accidents with trees falling on the road; Disturb due to the chainsaw noise; changing on the natural resources supply (hunting meat) - Dragging and transporting the timber: accidents due to the equipment's noise; improvement of the road network; Access difficulty in communities far from the forest management - Roads maintenance: better access for the traditional communities; better access to outsides and illegal activities - All forestry operations: employment	Monitoring Report. Please amend the Project Description and Monitoring Report with the details included in the response column.  The finding remains open.  DNV GL Assessment 4 December 2015  The project proponent has included the greater detailed discussion provided in this findings document concerning negative impacts, mitigation options and evidence for potential mitigation steps within the Monitoring Report (Amapa_MonitoringReport t_2012e2013_v.3.2.doc). This finding is now closed.
	opportunities; qualification of labor force; contribution to the rural exodus; improvement of living conditions; improvement of communication channels close to the field operation; insufficient communication with regions far from the field operation;  - Fundação Jari activities: better access to public policies and rights guarantee; improvement of living and hygienic conditions of the families; income generation; improvement on the communications channels with the communities; maintenance of producers in the communities; increasing dependence of	
	the producers on the Fundação Jari; conflicts between projects participants; better community organization; use of	



Corrective action and/ or clarification requests	Response by project participants	Verification conclusion
	degraded lands; improvement and continuous formations and training of communities leaderships.	
	For each of this identified impacts that is the identification of impact class (A – The impact harms someone or some community; B – It is a positive impact and need to be maintained or improved), probability (R - Real; P – Potential), the level of influence (D – direct; I – Indirect), the action to be taken (minimize, mitigate, improve, monitor), preventive and mitigation actions that could be done by the forestry sector and/or by Fundação Jari. The impacts spreadsheet was made available.	
	Recently, through new discussions with Fundação Jari, Jari Florestal and Quality and Environmental Department team additional impacts have been identified, especially:	
	<ul> <li>Possible damage in the Brazil Nut trees</li> <li>Access restriction to the Brazil Nut trees and other non-timber forest products</li> </ul>	
	The Brazil Nut tree, along with other non timber forest products, such as copaiba and andiroba, are important resource source for the local traditional communities. For this reason any tree specie valuable to the communities livelihood are harvested. The Brazil Nut is even protected by a Brazilian Federal Law (Federal Decree no 5.975 from November 30th 2006).	
	On it management plan Jari Group commits no to explore none of the species with especial interest from the communities and not to restrict their access to this resources. As a mitigation, the main important "castanhais" (areas with high concentration of Brazil Nut trees were identified with Fundacão Jari support, so they were not harvested and during the planning and forest inventory to support every annual operation (POAs – Annual Production Unit), when a census is made previously to the harvesting every "social interesting tree" is mapped, especially the Brazil Nut tree, copaiba and andiroba. Thus, they can plan the harvesting without damaging the trees, and during the harvesting signs and warnings are distributes in the operation site, and the surround communities are warned. The ground mapping of each tree has not happened so far in the Project Area because the forest management hasn't started yet.	



	Corrective action and/ or clarification	Response by project participants	Verification conclusion
	requests	Workshops with the communities close to each POA are planned to happen once the forest management plan is approved to explain the harvesting process and possible impacts and risks for them.  It is important to state that until the delivery of this responses it wasn't possible to assemble with the communities participating on the project, and to best identify potential negatives risks and impacts ideally the should be consulted, especially anther CCBS optics. Therefore the project proponent assume the commitment of promoting workshops with each community participating with this end, to identify potential risks and negative impacts, until the next verification period.	
1	CL 12 Document Reference: Monitoring Report – 23 June 2013 Standard Reference: VM0015 v1.1, Part 3, Task 1, 1.1  Please indicate whether carbon stocks have been measured during the monitoring period.	No, the carbon stocks have not been measured during the monitoring period. The measurement of carbon stocks, and there for updating of the emissions factors, will be carried out along with the re-validation of the baseline.	DNV GL Assessment 1 October 2015  Based on employee interviews during the site visit and the provided response, the carbon stocks have not been measured during the monitoring period. This finding is now closed.
2	CL 13  Document Reference:  Monitoring Report – 23  June 2013, Section 4  Standard Reference:  AFOLU Requirements 3.4, Section 3.7.7  VCS Program Definitions 3.5  Where an event occurs that is likely to qualify as a loss event (see VCS document Program Definitions for definition of loss event) and VCUs have been previously issued, a loss event report shall be prepared and submitted to the VCS registry administrator. [A loss event] in an AFOLU project [is] any event that	According with VCS Program Definitions 3.5. a loss event is:  "In an AFOLU project, any event that results in a loss of more than five percent of carbon stocks in pools included in the project boundary but is not planned for in the project description, (eg, harvesting as set out in management plans and described in the project description is not a loss event). Examples include catastrophic events (see definition of catastrophic reversal) as well as human-induced losses such as those caused by poor management, tillage, overharvesting or encroachment by outside actors (eg, illegal logging or fuelwood collection)."  By carrying out a significance assessment (VCS Monitoring report spreadsheet v.2) it was possible to see that the ex post deforestation observed due to unavoidable unplanned deforestation for the years of 2012 and 2013 represents 1% of the total carbon	DNV GL Assessment 7 October 2015  The project proponent has provided an analysis to determine the significance of the loss of carbon stocks and whether the loss qualifies as a loss event. Although some assumptions of the analysis could be further justified, any reasonably conservative adjustment to the analysis would likely produce an estimate of less than 5% of the carbon stock. Therefore, this finding is closed.



	Corrective action and/	Response by project participants	Verification conclusion
	or clarification requests		
	results in a loss of more than five percent of carbon stocks in pools included in the project boundary but is not planned for in the project description.	stocks in pools included in the project. Therefore the project has not incurred any loss event.	
	As the project has incurred a loss of carbon stocks during the monitoring period, please indicate and justify whether the loss of carbon stocks qualifies as a loss event.		
2		The proposed social activities have an intrinsic relationship with leakage prevention strategy. Jari/Amapá REDD+ project aims to keep this small farmer on their land, but helping them to have a better and more sustainable production, improving their income and their access to public policies. Keeping this farmer on their land is a way of improving their quality of live and preventing leakage, once the slash and burn cycle is contained and the arrival of new and more aggressive farmers is prevented.  The list and description of all leakage prevention activities were incorporated on the Monitoring Report v.2.	DNV GL Assessment 7 October 2015  The project proponent has provided a list of leakage prevention activities implemented during the monitoring period. This finding is now closed.
2	CL 15 Document Reference: N/A Standard Reference: AFOLU Requirements 3.4, Section 3.3.1  Projects shall have a credible and robust plan for managing and implementing the project over the project crediting period. Please provide a credible and robust plan for managing and implementing the project over the crediting period.	Jari/Amapá REDD+ Project has basically three management plan to rely on:  • The Sustainable Forest Management Plan (SFMP), relative to the low impact logging operation in the project area;  • Project Description Document (2013) regarding VCS and VM0015 methodology requirements, focus on Project's GHG Emissions Reductions;  • Project Description Document (2015) regarding CCBS requirements focus on activities designed for communities and biodiversity.  Each of these plans aims to propose a credible and robust plan for managing and implementing activities on each essential aspect of the Project. The Jari/Amapá REDD+ Project have three essential aspects to its successful implementation: The sustainable forest management with low impact logging, the activities designed to protect the forest	DNV GL Assessment 7 October 2015  The project has provided three plans: the SFMP, VCS PD and CCB PDD. The implementation schedules for many of the project activities do not extend over the entire crediting period. Likewise, management and implementation considerations for many proposed project activities are not completely described.  Please provide a credible and robust plan for managing and



Corrective action and/	Response by project participants	Verification conclusion
or clarification		
requests	cover and the activities developed to generate social en environmental co-benefits.	implementing the project over the crediting period.
	The SFMP regulates the implementation of low	Please justify how the plan(s) are robust.
	impact logging activities according with Brazilian federal law and with geophysical and biological	This finding remains open
	conditions of the PA, carefully studied during the past 4 years. This document exposes all the procedures to be followed during the whole management cycle (pre-harvesting, harvesting and post-harvesting) and how to monitor its implementation.	DNV GL Assessment 2 December 2015  The project proponent has provided additional
	The VCS PDD (2013) explains the design of the REDD+ Project regarding the emissions reductions activities and following VCS rules. This document presents the basis for implementing and monitoring the Project.	documentation detailing project activity implementation and scheduling. Improvements in explanations of project activity scheduling and costs have been provided
	The CCBS PDD (2015) details how the REDD+ Project described in the VCS PDD (2013) will be able to achieve further net positive impacts to climate, communities and biodiversity. This document itemizes activities planned specifically to generate benefits to local communities and to biodiversity, and how to monitor them.	in the document "Proj_Investment Plan_20151015" as well as in the document "Activities and Investments Schedule_updated."
	Adding to that the Project Proponent provided on the VCS PDD (2013) section 1.8 the chronology for implementing SFM and REDD+ Activities, separately. Those tables were updated and provided as an annex on the Monitoring Report v.2.	Details about project activity implementation have been added in various tables and within some of the text throughout the Project
	R2.	Description and
	The SFMP proposed activities are to be hold during the entire crediting period, considering that there are 25 planned UPAs (Annual Production Unit), one UPA is to be harvested per year once the SFMP is approved.	Monitoring Report. This finding is now closed.
	To manage this UPAs, every year the activities mentioned on VCS PDD, table 6 (summary of Jari/Amapá REDD+ Project main activities in the FSC-certified Management component), page 16, should be implemented. The SFM is expected to start in 2016, these activities should happen every year until 2041, which contemplates the whole crediting period.	
	In regard of the VCS and CCB proposed activities, they are mainly to be continuous over the years, and expected to happen every year during the	



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1 1		Thus, this is a robust and sustainable implementation plan because it considers year by	1



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	· oquoos	year priority and resources availability, being therefore adaptable, and already considering the minimum amount of investment and strategic activities to be implemented.	
2	CL 16 Document Reference:	R1. The quality management procedures predicted in the VCS PDD (2013) and described in the	DNV GL Assessment 7 October 2015
	N/A Standard Reference: AFOLU Requirements 3.16	Monitoring Report 2012-2013, section 3 where applied during this monitoring period. As an evidence the monitoring of the "Deforestation in the Project Area and Leakage Belt described in section 3.2 (Data and Parameters Monitored) can be	Although the project proponent references reports and bulletins related to the surveillance
	Quality management procedures to manage data and information shall be applied and established. Where	directly compared with the methodology described on our internal "Annual Deforestation Bulletin" for 2012 and 2013.  The annual deforestation was annually monitored	program and the processing of PRODES data, these do not represent a monitoring plan that meets these
	applicable, procedures to account for uncertainty in data and parameters shall be applied in accordance with the requirements set	and calculated through Landsat TM5 images (spatial resolution of 30 m), processed by PRODES Digital project with the support of Cosmo SkyMed ScansSar for QA/QC procedures.  The original (raster) and processed (vector) digital data from satellite images, coordinates, technical	requirements. The VCS PD includes a monitoring plan but fails to establish a GHG information system, roles or
	out in the methodology. The project proponent shall establish a GHG information system for obtaining, recording, compiling and analyzing	maps, field photos and the annual deforestation bulletin (that consolidates all the monitoring information of certain year) was stored by Biofílica Investimentos Ambientais, and was mad available to the VVB.	responsibilities for monitoring. The cited report for annual deforestation does not conform to the monitoring plan and therefore
	data and information important for quantifying and reporting GHG emissions and/or	<b>R2.</b> Project's GHG information system is the one explained in the Project Description Section 4 (Monitoring).	evidence demonstrating conformance with the monitoring plan is lacking.
	removals relevant for the project (including leakage) and baseline scenario. A monitoring plan for the project that includes roles and responsibilities shall be established. Where	The mentioned Section contains data and parameters available at the validation (item 4.1), data and parameter to be monitored (4.2), technical description of the monitoring tasks, data to be collected, overview of data collection procedures, quality and control assurance procedure, data archiving, organization and responsibilities of the	Please provide evidence demonstrating conformance with the above requirements during the monitoring period.
	measurement and monitoring equipment is used, the project	parties involved, for monitoring of actual carbon stock changes and GHG emissions within the Project Area, (4.3.1), Monitoring of Leakage (4.3.2)	This finding remains open.
	proponent shall ensure the equipment is calibrated according to the	and Ex Post net anthropogenic GHG emission reductions (4.3.3).	DNV GL Assessment 2 December 2015
	equipment's specifications and/or relevant national or international standards.	On the Monitoring Report v.3, the section 3 was adapted to explicit all the details mentioned above. This section represents Project's GHG information system for obtain, recording, compiling and	The Project Description and Monitoring Report include a monitoring section which
	Please provide evidence	analyzing data and information important for	encompasses data



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	demonstrating conformance with the above requirements during the monitoring period.	quantifying and reporting GHG emissions and/or removal relevant for the project (including leakage) and baseline scenario. Which can be demonstrated through sections 3.1 (data and parameters available at the validation), 3.2 (data and parameters monitored) and 3.3 (Monitoring Plan), mainly in the sub-itens "1. Monitoring of actual carbon stock changes and GHG emissions within the Project Area", "2. Monitoring of Leakage" and "3. Ex post net anthropogenic GHG emissions reductions", inside section 3.3 Monitoring Plan.  On this report the quality procedures implemented (or to be implemented in future activities) were explained along the items 3.1, 3.2 and 3.3, always when applicable.  The Monitoring Plan presented in the section 4 of the Project Description and Section 3 of the Monitoring Report v.3 includes roles and responsibilities for each monitoring activity, when it was important to highlight the different roles of the involved parties.	available at validation, parameters to be monitored, details on the actual monitoring of stock changes, monitoring leakage, updating the baseline, a GHG system outlining how to collect, record, compile, analyze and archive data as well as quality control procedures.  The project proponent has provided the document "Convenio_Conta_REDD+.doc" which essentially outlines the specific roles and responsibilities of groups involved in the project.  This finding is now closed.
		Where measurement and monitoring equipment is used, it was described within the items 3.1 and 3.2 with the description of each parameter, when appropriated.	
21	FAR 1  Document Reference:  Monitoring Report,  Version 2 – 23 June 2013  Project Description – 12  April 2013, Section 2.3  Standard Reference:  VM0015, Step 1, Section 1.3  Wood products are excluded on the basis of that "Paol not included as	The harvested wood products in the baseline scenario are expected to be lower than in the project scenario. This happens because squatters and small-scale agricultural activities cause deforestation in the baseline scenario. Under the project scenario sustainable forest management activities are expected to happen, producing more wood products when compared with the baseline scenario.  Adding to that, on page 63 of VM0015, v1.1, it is stated that "if logging activities are present in the baseline the baseline scenario.	
	that "Pool not included as harvested wood products in the baseline scenario is lower than in the Project scenario" as allowed by VM0015. However, no harvested wood products have been produced in the project scenario since the start of the project. To	baseline, the harvested wood products carbon pool must be estimated and, if significantly higher in the baseline scenario compared to the project scenario, it will have to be accounted." In the Project REDD+ Jari/Amapá no logging is considered under the baseline scenario, due to the agents and drives of deforestation already explained.  Even when the harvesting under the project scenario starts we are considering the infrastructure to be built (e.g. roads, storage patios) as planned	



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	meet the requirement of VM0015, consider harvesting wood products in the project scenario.	deforestation, to be discounted from the carbon stock according with the post-harvesting report. Regarding the timber logged, all to be destined for long-lived wood products, according with footnote 43, page 85 of VM0015, v1.1, "ignoring the carbon stocks in the long-lived wood products is conservative under the project scenario".	
		In the following verification event we expect the SFM already to be approved and in place. Based on the post-harvesting report (elaborated after the harvesting of every UPA), will be able to dimension the planned deforestation ex post and to consider the harvested wood products under the project scenario. Although, according with the methodology this last carbon stock can be ignored once it will long-lived wood products, and evidence of that will be provided.	
2		Although Court last on the first of	
	Project Description – 12 April 2013, Section 4.3 Standard Reference: N/A	Although Grupo Jari acquire the land from the Brazilian Government, therar is still a regularization process going on. Since its acquisition Grupo Jari has made several formal and informal agreements with State Governments from each side, Amapá and Pará.	
	During the site visit, land regularization for some communities within the project area was identified. This is a procedure where land title is transferred to families or a community based on	Only with Amapá state Grupo Jari has formally signed 3 agreements in 2006: An Intention Protocol with Amapá State Government, a Commitiment Term with the former TERRAP (now IMAP), and a Cooperation Agreement with the Former TERRAP (now IMAP).	
	a clear legal process which is supported by the project proponent. However, the monitoring plan does not include any procedure to identify regularized land and to address project area boundaries. To avoid	During the following government all the governmental agencies passed through restructurings and a lot of TERRAP's work was lost. The new responsible institution, IMAP, is now on behalf of a new Governador, empowered this year (2015). Since them 3 informal talks between the new Government and Grupo Jari was made, but so far it wasn't possible the get the agreements updated, for a variety of reasons.	
	inaccuracy of the project boundary when land is newly titled, please consider a procedure to monitor and account for newly regularized land within the boundaries of the project area.	Until the next verification event, project proponents will continue the conversation with the State Government (responsible for the regularization), to update the regularization commitment and cooperation term. Working together to develop schedule of regularization goals and implementation strategy. With a robust regularization plan built together with the Government (through IMAP), it will me possible to made a provision of the lands to be	



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	newly titled, and, therefore, monitor and account for them within the boundaries of the project area.	