

JARI/PARÁ REDD+ PROJECT MONITORING REPORT

Document Prepared By Biofílica Ambipar Environmental Investments

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Project Proponent(s)	Biofílica Ambipar Environmental Investments: Plínio Ribeiro, plinio@biofilica.com.br.
	Jari Celulose: Vinicius Montagnana Garcia, vinicius.garcia@grupojari.com.br.
	Fundação Jari: Jorge Rafael Almeida, jralmeida@fundacaojari.com.br.
Prepared By	Biofílica Ambipar Environmental Investments
Verification Body	Earthood Services Private Limited
Project Lifetime	July 8, 2014 to July 7, 2044 - 30 years
GHG Accounting Period	July 8, 2014 to July 7, 2044 - 30 years
Monitoring Period of this Report	23-October-2017 to 28-February-2023
History of CCB Status	CBB Validation – July 2, 2019
Gold Level Criteria	Gold Level GL1 - Climate Change Adaptation Benefits by providing significant support to help communities and/or biodiversity adapt to the impacts of climate change. The project's climate-related activities focus on actions to promote food security and alternative sources of income through sustainable natural resource management, biodiversity protection, and improved community infrastructure. Project activities to help achieve these benefits include environmental education, control of wildfires and enforcement of deforestation, courses and training, implementation of agroforestry systems, creation of new

production chains, donation of solar panels, and improvements in community infrastructure.

Gold Level GL3 - Exceptional Biodiversity Benefits, according to the vulnerability criteria described by CCBS for critically endangered or endangered species (according to the IUCN Red List). The REDD+ Jari Pará Project zone plays a critical role in the conservation of local biodiversity and proposed activities in the Project, such as biodiversity monitoring and incentives for scientific research to help maintain this conservation.



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1 SUMMARY OF PROJECT BENEFITS

1.1 Unique Project Benefits

Result or Impact	Accomplishments during the monitoring period	Reference Section	Accomplishments during the project's lifetime
Climate change mitigation	<p>Total emissions avoided in the monitoring period: 1,753,725 tCO₂e</p> <p>Total avoided deforestation within the project zone: 14,868 hectares</p> <p>Total inspection activities promoted: 2,075</p> <p>Total number of reports made: 31</p>	3	<p>Total emissions avoided in the monitoring period: 2,765,806 tCO₂e</p> <p>Total avoided deforestation within the project zone: Hectares 24,169</p> <p>Total inspection activities promoted: 2,833</p> <p>Total number of reports made: 41</p>
Increase the level of socioeconomic conditions and the quality of life of families by helping them obtain goods and services that promote economic and social well-being, reducing social vulnerability and a rural exodus by strengthening associations, improving family agriculture, providing technical assistance and improving energy, and communication systems	<p>Number of people reached by the project: 897</p> <p>Communities affected by the project: 58</p> <p>Improvements and construction of infrastructure for the communities: 18</p> <p>Associations supported by the project: 10</p>	4	<p>Number of people reached by the project: 897</p> <p>Communities affected by the project: 58</p> <p>Improvements and construction of infrastructure for the communities: 18</p> <p>Associations supported by the project: 10</p>
Courses and training provided and focused on sustainable management practices of forest resources, production, social organization, cooperativism, leadership and	<p>Number of training courses focused on family agriculture and sustainable extractivism: 41</p>	4	<p>Number of training courses focused on family agriculture and sustainable extractivism: 41</p>

<p>financial management, developing technical and professional skills</p>	<p>The number of training courses offered to strengthen associativism and cooperativism in the communities: 42</p> <p>Number of training offered focused on environmental education: 38</p>		<p>The number of training courses offered to strengthen associativism and cooperativism in the communities: 42</p> <p>Number of training offered focused on environmental education: 38</p>
<p>Maintenance and monitoring of the forest cover in the Project area, ensuring the protection and conservation of habitats, and local biodiversity, including species with some degree of threat and the role of an "ecological corridor" in the Project area, connecting Conservation Units.</p>	<p>In final phase of analysis and consolidation</p>	<p>5</p>	<p>In final analysis and consolidation phase</p>

1.2 Standardized Benefit Metrics

Categories	Metrics	Accomplishments during the monitoring period	Reference Section	Accomplishments during the project's lifetime
Reductions and Removals of GHG Emissions	Estimated net removals of emissions in the Project area, measured against the without-Project scenario	Not applied	-	Not applied
	Estimated net emission reductions in the Project area, measured against the without-Project scenario	1,753,725	3	2,765,806
Forest coverage	For REDD projects: Estimated number of hectares of forest loss reduced in the Project area, measured against the without-project scenario	5,023	3	8,091
	For ARR projects: Estimated number of hectares of forest cover added in the Project area, measured against the without-project scenario	Not applied	-	Not applied
Improved Land Management	Number of hectares of forest land in production on which Improved Forest Management (IFM) practices are expected to occur as a result of Project activities, measured against the without-project scenario	Not applied	-	Not applied
	Number of hectares of non-forested land where improvements in land management practices are expected to occur as a result of Project activities, measured against the without Project scenario	Not applied	-	Not applied
Training	Total number of community members improved skills and/or knowledge resulting from training provided as part of the Project activities	More than 2,000 attendees in training offered by the Project	4.3.1	More than 2,000 participations in training offered by the Project
	Number of female community members improved skills and/or knowledge resulting from training provided as part of the Project activities	Not applied	-	Not applied
Employment	Total number of people employed in the Project activities, expressed as number of full-time employees	Not applied		Not applied
	Number of women employed as a result of the Project activities, expressed as number of full-time employees	Not applied		Not applied

Categories	Metrics	Accomplishments during the monitoring period	Reference Section	Accomplishments during the project's lifetime
Means of Subsistence	Total number of people with improved livelihoods or income generated as a result of Project activities	897	4	897
	Number of women with improved livelihoods or income generated as a result of Project activities	270	4	270
Health	Total number of people for whom health services were improved as a result of Project activities, measured against the without-project scenario	Not applied	-	Not applied
	Number of women for whom health services are expected to improve as a result of Project activities, measured against the without-project scenario	Not applied	-	Not applied
Education	Total number of people for whom access to or quality of education has been improved as a result of Project activities, measured against the without-project scenario	Not applied	4	Not applied
	Number of women and girls for whom access to or quality of education has been improved as a result of Project activities, measured against the non-Project scenario	Not applied	4	Not applied
Water	Total number of people who experienced increased water quality and/or improved access to safe drinking water as a result of Project activities, measured against the without-Project scenario	Not applied	--	Not applied
	Number of women who experienced increased water quality and/or improved access to safe drinking water as a result of Project activities, measured against the without Project scenario	Not applied	--	Not applied
Wellness	Total number of community members whose well-being is expected to improve as a result of Project activities	655 families	4.3	655 families
	Number of women whose well-being was improved as a result of the Project activities	Not applied	--	Not applied

Categories	Metrics	Accomplishments during the monitoring period	Reference Section	Accomplishments during the project's lifetime
Biodiversity Conservation	Change in the number of hectares managed in a significantly better way by the biodiversity conservation project, measured against the no-project scenario		5	
	Number of critically endangered or endangered species (as per IUCN list of endangered species) that benefited from reduced threats as a result of project activities, measured against the without-project scenario		5	

2 GENERAL

The activities of REDD+ Jari Pará Project are under the responsibility of Biofilica Ambipar Environment and the Fundação Jari and were started in 2014. Biofilica works in all the project stages from design, implementation, monitoring, and management, being responsible for developing all technical documents for the relationship with the partner and for conducting and performing verification audits. Jari Celulose is the owner of the land where the Project is being developed and is responsible for the co-management of the project and for land security and property surveillance. Fundação Jari is responsible for the co-management of the project, managing the socio-environmental activities of the projects, offering through Technical Assistance and Rural Extension (TARE) for producer activities focused on reducing negative impacts and generating positive ones.

REDD+ Jari Pará Project is located in the northern region of the State of Pará, and to the north of the Conservation Unit “Estação Ecológica do Jari” [Jari Ecological Station] and is on the right bank of the lower Jari River, bordering the State of Amapá, in the Almeirim municipality. The Project Area (496,988 hectares) is located within the Gleba Jari I property (Project Zone), which totals an area of 909,461 hectares (Receipt of property registration in CAR, 2016).

2.1 Project Goals, Design and Long-Term Viability

2.1.1 Implementation Schedule (G1.9)

Date	Milestone(s) in the project’s development and implementation
Management and design activities	
July 2014	Signing of contractual amendment between the bidders
Completed between March/2015 and June/2015	Identification of actors and partnerships and choice of Research Institutions
Completed between May/2014 and August/2016 and revised between January/2017 and October/2018	Baseline Determination
Completed between May/2015 and April/2016	Preparation of technical studies: Forest carbon stock estimation, Socioeconomic and Environmental Diagnosis
Started in 2015 and ongoing for the entire duration of the project	Creation of the REDD+ Jari Socio-environmental Financial Management Agreement
Management and monitoring	
Started in 2015 and ongoing for the entire duration of the project	Intensification and improvement of the efficiency of the Property Surveillance

Started in 2015 and ongoing for the entire duration of the project	Expanded dialogue with communities in the Project Zone: Follow up feedback channels
Started in 2018 and ongoing along the entire project term	Strengthening the TARE Team: training aimed at qualifying the team to meet the demands of the communities
Started in 2019 and completed in 2022	Carrying out a new Socioeconomic and Environmental Diagnosis to update the characterization and registration of the communities, along with a reassessment of the social and environmental impacts on Vale do Jari.
Started in 2020	Hiring high-resolution images for monitoring risk areas in the property
Started in 2022	Creation of the application for monitoring the activities of Fundação Jari
Started in 2022	Consolidation of a partnership with IFAP to carry out teaching, research, and extension activities in the region of Vale do Jari, focused on the projects' biodiversity monitoring activities, as well as those associated with the xylotheque and museum
September 2021	Training on REDD+ Projects for members of Fundação Jari and Grupo Jari
Started in 2022 and ongoing along the entire Project term	Consolidation and Implementation of the Monitoring Guide
1st Training held in November/2022	Training of the Monitoring Guide
December 2022	Review of benefit distribution to communities
December 2022	Definition of the strategy for public consultation with the communities in the Project Zone
Project's Financial Management	
Started in 2019	First sale of carbon credits
September 2022	Approval of the new financial control system of Fundação Jari
September 2022	Beginning of the presentation of the annual accountability of Fundação Jari based on data from the controllership of Grupo Jari

2.1.2 Minor Changes to Project Design (*Rules 3.5.6*)

Grupo Jari and Fundação Jari website

It was initially provided in the PDD, in section 2.3.2 "Dissemination of Project Summary Documents", that Project information would be disseminated on the websites of Grupo Jari and Fundação Jari. These sites were inactive in the monitored period, but the information was available in other virtual media such as: Instagram, Facebook, also Biofilica' media (Instagram, LinkedIn, and Verra website).

The Fundação Jari website was initially developed, but due to the priority of other activities and structural and financial issues of Grupo Jari, its review was not completed, these activities are being resumed for completion and approval of the website.

Although the non-dissemination of information by the planned sites resulted in the occurrence of a deviation from what was initially provided in the PDD, the gaps were filled by other means of dissemination and there were no impacts on the criteria for application and appropriateness of the methodology, and the additionality of the Project.

Validation of report data from Fundação Jari by the Technical Chamber

As already reported, the Technical Chambers did not occur as planned, so the reports from Fundação Jari were not validated by them.

It is noteworthy that the absence of the Boards does not directly influence the validation of the reports, since they are produced and used as evidence in CERFLOR (Brazilian Forest Certification Program) audits, with data submitted for audit.

As the data continue to be validated by the Fundação Jari team, negative impacts related to this activity are not expected, nor are impacts on the additionality of the project, with no major measures to be taken.

Monitoring indicators

Throughout the monitoring period some indicators initially established had difficulties in being raised and/or suffered changes in their metrics, which are described below.

Strengthening of Family Agriculture and Sustainable Extractivism: Gross revenue arising from new activities implemented after the start of training and technical assistance. The indicator was not accounted for in the monitored period, although provided in the work plan validated in the PDD. However, it is noteworthy that the Project has sought some initiatives related to improving the income of community members by providing technical assistance, training and support to agricultural production, as well as entering into important programs for strengthening family farming. The non-accounting for these indicators did not negatively influence the project implementation, nor its additionality, nor the generation of benefits to the community, since all other indicators related to the Strengthening of Family Agriculture and Sustainable Extractivism were answered, demonstrating mainly improvements in the quality of life and well-being of community members. Additionally, for the coming years and consequently for the next verifications, it is planned that this indicator will be monitored based on a sample portion of families, in order to clarify all the benefits generated to community members through the activities proposed in all scopes.

Strengthening of associations and cooperatives in the communities: It was provided in the PDD (section 3.3), that the "Number of youth and women involved in the associations/ cooperatives benefited by the Project" would be monitored, however the indicator parameter underwent some changes: The number of youth was not counted because the control instruments for this indicator have not tracked

those involved in the activities so far. The number of women was counted according to the available minutes of the associations/ cooperatives benefited by the Projects, identifying positions held by women. As some associations still do not have this document established, it is understood that the number presented for the monitored period is below what has been actually happening. It is noteworthy that the change in this indicator does not negatively influence the implementation of the project, its additionality, nor the generation of benefits to the community since the Project encourages the participation of young people and women in its activities, and that participation in the associations/ cooperatives has been occurring, although not measured as proposed, and that exclusive projects are developed for these target groups, as presented in the section 2.2.13, demonstrating mainly improvements in the quality of life and well-being of these groups.

This deviation has a temporary character, being present only in this monitored period becoming "Number of women involved in the associations/ cooperatives benefited by the Project". Mechanisms to register and survey this data will be incorporated for the next period. It is worth mentioning that as of 2022, the attendance lists already include the field "age" and "gender" to be accounted for, allowing the scope of activities in these groups to be more broadly based, beyond what is provided in the indicator, allowing future activities to be planned based on the scenario of participation of these groups in all Project activities.

Monitoring of fauna: the indicator "Number of animal species monitored" foresaw two annual fauna monitoring campaigns (two per semester); these activities did not occur within the estimated period, but were conducted in the second semester of 2022, after the formalization of the Technical Cooperation Agreement between Fundação Jari and IFAP.

The delay in actions during the monitoring period is justified by several factors, including the pandemic, financial problems faced by the Grupo Jari during this period, and the priority of activities according to the dynamics of the projects, such as the audit of the project in Amapá.

The absence of fauna data generation in the period between 2016 and 2021 impacted the Project with a gap in biodiversity data. It is expected that with the analysis of the 2022 data, a comparison can be made to understand the relevance of this impact.

It is planned in accordance with the IFAP Work Plan that the monitoring will continue to be carried out twice a year (dry season and rainy season).

It is noteworthy that surveillance activities continued to occur throughout the monitored period, inhibiting illegal activities, including poaching in the region, as well as the remote monitoring of habitats, allowed to ensure the maintenance of local biodiversity, although without further details.

Conduct scientific studies focused on Biodiversity and Environmental Impacts: the indicators "Training of community members to monitor Biodiversity" and "Number of people trained" were not quantified during the monitored period.

The training of community members to participate in the biodiversity monitoring process was provided in the PDD in sections 2.3.14 "Worker Training" and 5.4.1 "Biodiversity Monitoring Plan", which was scheduled to begin in 2020, which was delayed by the dynamics of the project's activities and priority

of the monitoring studies, only after feedback with the community members, the training activities are scheduled to start in 2023.

Logistically, it was necessary to complete the first stage of monitoring according to the current IFAP work plan, in order to later involve the community in general in research, teaching, and extension activities in the Vale do Jari region. Although there is the engagement of IFAP students who are from the region, there is no mapping of their relationship with the communities.

2.1.3 Project Description Deviations (*Rules 3.5.7 – 3.5.10*)

Optional Criterion Project Description Climate Change Adaptation Benefits

During the evaluation of the results and impacts of the activities carried out by the project in the monitored period, the proponents noted that, in addition to having a long-term continuity plan, the actions developed, as well as their impacts, bring significant support to help communities and biodiversity to adapt to climate change, meeting the Gold Level requirements of the CCB standard.

Therefore, in this monitoring report information is provided to demonstrate that the project meets the Gold Level requirements that were not included in the project description in the previous validation. Below are the sections that refer to the climate gold seal in the PDD template.

i. Regional scenarios of climate change (GL 1.1)

The Amazon Rainforest is a focus of concern when it comes to climate change, both because of the severe environmental impacts projected for the region, and because of its importance in mitigating climate change (ELLWANGER, et al., 2020¹; PBMC, 2016²; FEARN SIDE, 2003³). These concerns are not only due to the current projections, but also to their worsening, caused by the interaction of several anthropic

¹ ELLWANGER, H. J. et al. Beyond diversity loss and climate change: Impacts of Amazon deforestation on infectious diseases and public health. 2020. **Anais da Academia Brasileira de Ciências**. 92 (1) doi: 10.1590/0001-3765202020191375.

² PBMC – PAINEL BRASILEIRO DE MUDANÇAS CLIMÁTICAS. Impactos Regionais, Adaptação e Vulnerabilidade ao Clima e suas Implicações para a Sustentabilidade Regional no Brasil. Vol. 2. Cap. 8. 2016. http://www.pbmc.coppe.ufrj.br/documentos_publicos/GT2/GT2_volume_completo_cap8.pdf

³ FEARN SIDE, P. M. A floresta amazônica nas mudanças globais. Manaus: INPA, 2003. 134 p. ISBN 85-211-0019-1

factors that generate changes in land cover, such as deforestation, forest fragmentation and fires (MARENGO, et al., 2018⁴; NOBRE et al., 2016⁵).

Since the 1970s the region has undergone major changes in land cover and use, caused mainly by the replacement of native vegetation with large-scale cattle and monoculture plantations, mainly (OMETTO, 2014⁶). Deforestation is one of the factors that contribute to the aggravation of global climate change, through emission of greenhouse gases, through the burning and decomposition of biomass (FEARNSIDE, 2021⁷), in the Brazilian Amazon is caused by several factors, among them the opening of roads (infrastructure), extensive cattle raising, agriculture and logging (RIBEIRO et al., 2009⁸; FERREIRA, et al., 2005⁹, FEARNSIDE et al., 2020).

Climate modeling studies that simulate deforestation in the Amazon show significant reductions in rainfall in Amazonian forests (MARENGO et al., 2018). Variations in precipitation over the past years were also evidenced, for example, in the northeastern Amazon the trend is an increase in rainfall occurrence while in its southeastern portion, the trend is a reduction in rainfall occurrence based on observations from 1981 to 2017 analyzed from modeling and numbers of drought and flood events for the region (ESPINOZA et al., 2018¹⁰).

The importance of the biome in maintaining local, regional and global rainfall through air masses, meteorological variables, and the hydrological cycle of the forest is highlighted, and the hydrological cycle

⁴ MARENGO, J. et al. Changes in climate and land use over the Amazon region: current and future variability and trends. **Frontiers in Earth Science**, v. 6, p. 228, 2018.

⁵ NOBRE, A. C. et al. Riscos de uso da terra e mudanças climáticas na Amazônia e a necessidade de um novo paradigma de desenvolvimento sustentável. 2016. 113 (39) 10759 – 10768. doi: <https://doi.org/10.1073/pnas.1605516113>.

⁶ OMETTO, J. P., et al. Amazon deforestation in Brazil: effects, drivers and challenges, *Carbon Management*. 2011. 2:5, 575-585, doi: 10.4155/cmt.11.48.

⁷ FEARNSIDE, P.M. 2020. Desmatamento na Amazônia brasileira: História, índices e consequências. p. 7-19. In: Fearnside, P.M. (ed.) **Destrução e Conservação da Floresta Amazônica**, Vol. 1. Editora do INPA, Manaus, Amazonas. 368 p. (no prelo).

⁸ RIBEIRO, S. et al. Pecuária e desmatamento: uma análise das principais causas diretas do desmatamento na Amazônia. **Nova Economia**. Belo Horizonte. 2009. 19 (1) 41-66.

⁹ FERREIRA, V. L.; ALMEIDA, S.; VENTICINQUE, E. O desmatamento na Amazônia e a importância das áreas protegidas. *ESTUDOS AVANÇADOS* 19 (53), 2005.

¹⁰ ESPINOZA, J. C., RONCHAIL, J., MARENGO, J. A., AND SEGURA, H. (2018). Contrasting North–South changes in Amazon wet-day and dry-day frequency and related atmospheric features (1981–2017). *Clim. Dyn.* 116, 1–18. doi: 10.1007/s00382-018-4462-2.

of the forest, especially the importance of its "flying rivers". (ARRAUT et al., 2012¹¹; ZEMP et al., 2014¹²; MARENGO et al. 2018¹³; MARENGO, 2020¹⁴; ARTAXO, 2020¹⁵).

According to the last report of the International Panel on Climate Change (IPCC - AR6 WGI, 2022¹⁶) the Amazon Rainforest was highly impacted by the preceding droughts and higher temperatures observed in the years 1998, 2005, 2010, 2015, and 2016, attributed in part to climate change, resulting in high rates of tree mortality and reductions in forest productivity throughout the basin.

Extreme climatological events have occurred in the Amazon region, such as three major droughts, in the years 2005, 2010 and 2016 (already mentioned periods of high temperatures), and three major floods in the years 2009, 2012 and 2014, for the period of the last 17 years (MARENGO; ESPINOZA, 2016¹⁷; ZOU et al., 2015¹⁸).

Projections presented in the report for Brazil's Fourth National Communication to the UNFCCC show that during the summer, the states of Amazonas and Pará show a relative reduction in the percentage of accumulated precipitation, and a model also indicates a rainfall reduction in the northern region of up to of 35% (MCTI, 2021¹⁹).

The IPCC report projects with high confidence that dry climate impactors will increase regionally from expected higher levels of global warming. The strongest signal of future increases in agricultural and ecological drought, aridity, and fire weather is over the Amazon region.

¹¹ ARRAUT, Josefina Moraes et al. Aerial rivers and lakes: looking at large-scale moisture transport and its relation to Amazonia and to subtropical rainfall in South America. **Journal of Climate**, v. 25, n. 2, p. 543-556, 2012.

¹² Zemp, D. C., Schleussner, C.-F., Barbosa, H. M. J., van der Ent, R. J., Donges, J. F., Heinke, J., Sampaio, G., and Rammig, A.: On the importance of cascading moisture recycling in South America, **Atmos. Chem. Phys.**, 14, 13337–13359, <https://doi.org/10.5194/acp-14-13337-2014>, 2014.

¹³ MARENGO, Jose A. et al. Changes in climate and land use over the Amazon region: current and future variability and trends. **Frontiers in Earth Science**, v. 6, p. 228, 2018.

¹⁴ MARENGO, JOSE A. Drought, floods, climate change, and forest loss in the amazon region: a present and future danger? **Frontiers for Young Minds**, v. 7, p. 8-147, 2020.

¹⁵ ARTAXO NETTO, Paulo Eduardo. The role of Amazonia in the Global Climate. 2020. <https://repositorio.usp.br/item/003018232>

¹⁶ IPCC, Grupo de Trabalho II. Impactos, Adaptação e Vulnerabilidade. Ficha Informativa. América Central e do Sul. <https://www.ipcc.ch/report/ar6/wg2/about/factsheets/>.

¹⁷ MARENGO, J. A., ESPINOZA, J. C. (2016). Extreme seasonal droughts and floods in Amazonia: causes, trends and impacts. *International Journal of Climatology*, 36(3), 1033-1050

¹⁸ ZOU, Y., MACAU, E. E. N., SAMPAIO, G., RAMOS, A. M. T., AND KURTHS, J. (2015). Do the recent severe droughts in the Amazonia have the same period of length? *Clim. Dyn.* 46, 3279–3285. doi: 10.1007/s00382-015- 2768-x.

¹⁹ MCTI – MINISTÉRIO DA CIÊNCIA, TECNOLOGIA E INOVAÇÕES.[MINISTRY OF SCIENCE, TECHNOLOGY AND INNOVATIONS.] Brazil 2020. Brazil's Fourth National Communication to the UNFCCC.

The warming caused by high temperatures in the Amazon region is historically evidenced by various sources since the 1950s (MARENGO et al., 2020; MARENGO, SOUZA JR, 2018²⁰). Temperatures across the Amazon Basin have increased by 0.5°C since 1980, with higher rates of warming observed during the dry season (August to November), the frequency and duration of heat waves in the region is predicted to increase by up to 214 additional days by 2090 decade (WORLD BANK, 2021²¹) and the increased risk of fire should arise before 2050 (IPCC b, 2022²²).

The following figures present the future climate averages scenario forecast²³ over long-term time horizons, with a multi-model ensemble representing the range and distribution of the most plausible projected outcomes of change in the climate system for Pará state²⁴.

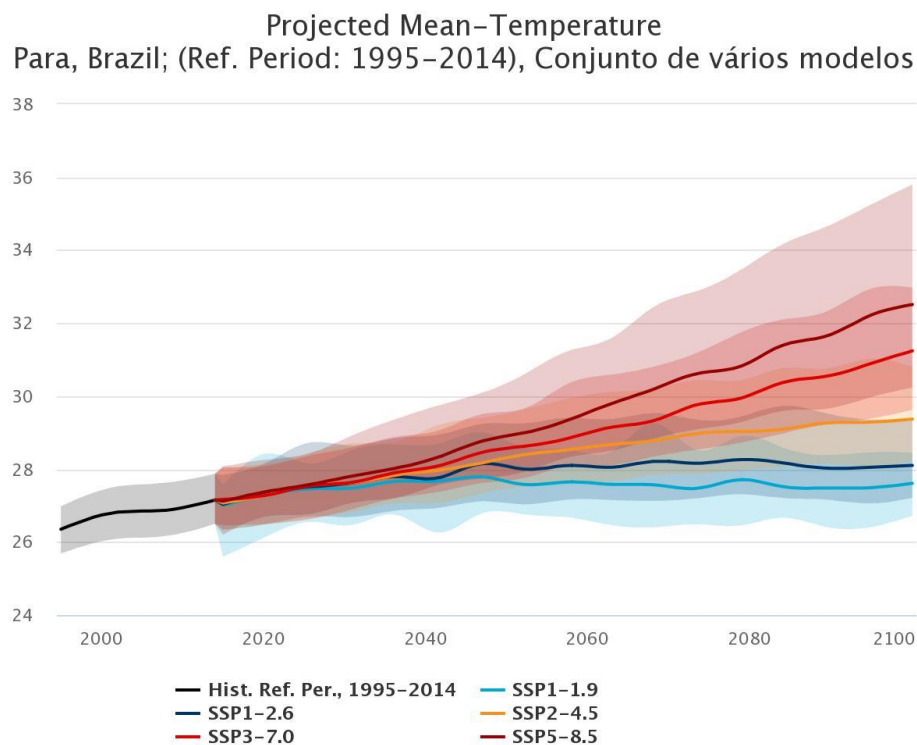


Figure 1: Average temperature forecast for Pará State until 2100.

²⁰ MARENGO, J.A., SOUZA JR, C. 2018. Climate change: impacts and scenarios for the Amazon.

²¹ WORLD BANK. Climate Risk Profile: Brazil (2021): The World Bank Group.
<https://climateknowledgeportal.worldbank.org/country/brazil>.

²² IPCC b. Climate Change Information for Regional Impact and for Risk Assessment.
<https://www.ipcc.ch/report/ar6/wg1/chapter/chapter-12/>.

²³ the latest IPCC report (AR6) presented a new set of 5 emissions scenarios, called the Intercomparison of Climate Models Project Version 6 (CMIP6). There are two low emission scenarios (SSP1-1.9 e SSP1-2.6), an average emission scenario (SSP2-4.5), and two high emission scenarios (SSP3-7.0 e SSP5-8.5).

²⁴ <https://climateknowledgeportal.worldbank.org/country/brazil/climate-data-projections>.

Projected Days with Heat Index > 35°C
Para, Brazil; (Ref. Period: 1995–2014), Conjunto de vários modelos

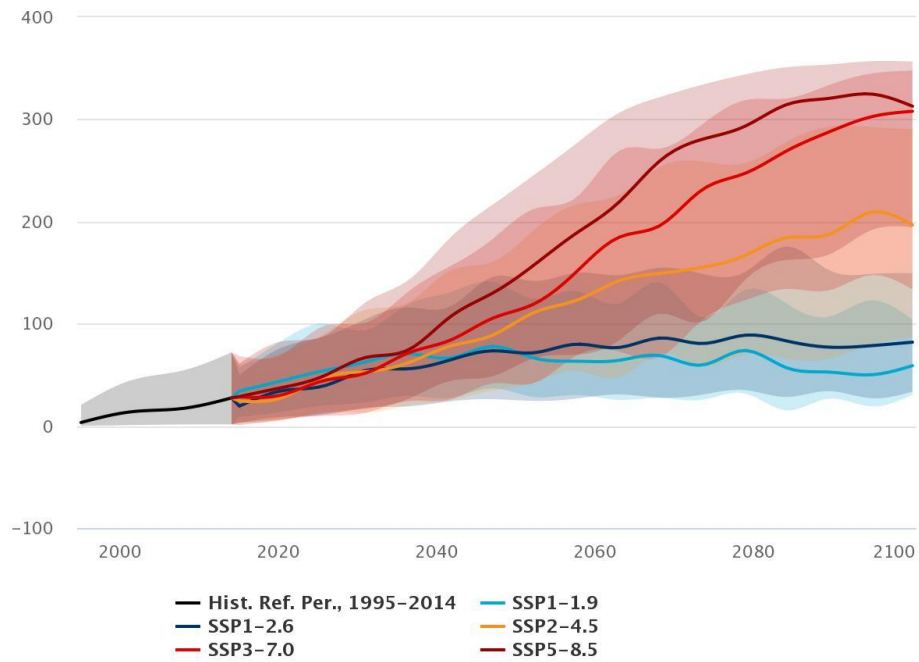


Figure 2: Heat forecast with index days above 35°C in the state of Pará until 2100.

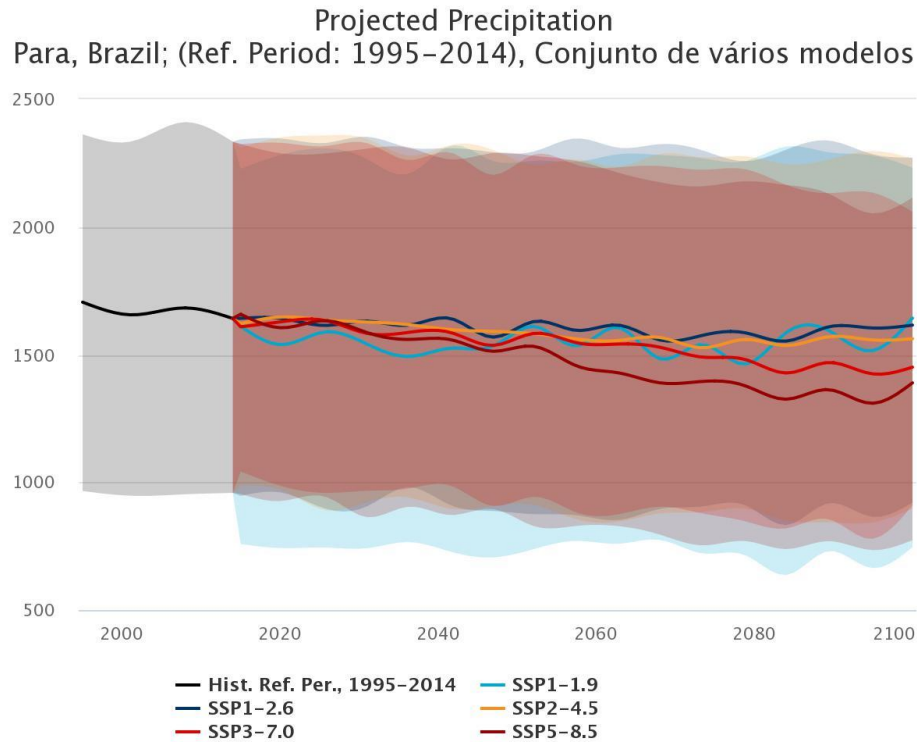


Figure 3: Rainfall forecast for Pará State until 2100.

Climate projection data are modeled based on global climate model compilations of the Coupled Model Intercomparison Projects (CMIPs) supervised by the World Climate Research Program. The data presented are CMIP6, derived from the Sixth phase of the CMIPs, which form the database of the IPCC Assessment Reports. As can be seen, there is an indication of temperature increases and rainfall reductions.

Forecasts from different climate models generally indicate an increasing increase in extreme events of droughts and prolonged droughts mainly in the North and Northeast regions of Brazil (MCTI, 2021).

In a scenario of absence of the Project the illegal practices would intensify in its area, the State of Pará leads the index of states that deforest the Amazon region the most. Illegal timber trading, land conversion into pasture, and most areas are exploited by squatters, land grabbers, besides mining and animal trafficking as examples of activities occurring in the region, boosting the environmental degradation. The Project works on several fronts, seeking to contain this pressure exerted on its limits (GLOBO PARÁ,

2021a²⁵; GLOBO PARÁ, 2021b²⁶; CNN, 2022²⁷; FOLHA DE SÃO PAULO, 2022²⁸; CORREIO PARAENSE²⁹).

ii. Effects of the climate change (GL 1.2)

Forests play an important role in mitigating and adapting to climate change, including biodiversity conservation, provision of livelihoods, food security, and the containment of natural hazards (FAO, 2022³⁰).

Brazil is home to nearly 60% of the Amazon rainforest area the productive and biodiverse ecosystems of the Amazon basin provide essential services to about 30 million people and ecosystem services important not only to the region but globally (USAID, 2018³¹).

The impacts of climate change are diverse; higher temperatures may alter the range and distribution of species, drought may affect freshwater systems and their dependent communities, and changes in precipitation and temperature may increase the spread of disease. If climate impacts decrease agricultural production, Brazil's food insecurity could increase, as could farmers' pressure on Amazonian lands and resources (USAID, 2018).

Among the most vulnerable to the effects of climate change in the Amazon are indigenous peoples, traditional communities, small producers, farmers, low-income people in urban areas, children, and the elderly (IPCC a, 2022). In view of this, numerous socioeconomic problems may arise, affecting these layers of the population in different proportions.

The association between climate change and various other factors generated by anthropic action in the Amazon Forest, together with the precarious social and environmental conditions may lead to the emergence of new infectious diseases, as well as the resurgence of existing diseases (ELLWANGER, et al., 2020).

Extreme weather events have serious economic consequences, which can destabilize the order and functioning of the human communities affected by them, generating social instability and weakening

²⁵ GLOBO PARÁ, 2021a. Polícia ambiental resgata mais de 600 animais alvo de tráfico nos quatro primeiros meses de 2021 no PA. <https://g1.globo.com/pa/para/noticia/2021/05/05/policia-ambiental-resgata-mais-de-600-animais-alvo-de-trafico-nos-quatro-primeiros-meses-de-2021-no-pa.ghtml>.

²⁶ GLOBO PARÁ, 2021B. Pará é o estado com maior índice de desmatamento do Brasil no mês de julho, aponta Imazon. 2021. <https://g1.globo.com/pa/para/noticia/2021/08/19/para-e-o-estado-com-maior-indice-de-desmatamento-do-brasil-durante-o-mes-de-julho-aponta-imazon.ghtml>.

²⁷CNN. 2021. Desmatamento na Amazônia em 2021 é o maior dos últimos 10 anos. <https://www.cnnbrasil.com.br/nacional/desmatamento-na-amazonia-em-2021-e-o-maior-dos-ultimos-10-anos/>.

²⁸ FOLHA DE SÃO PAULO. 2022. Pará é síntese de desafios e problemas da Amazônia. <https://www1.folha.uol.com.br/ambiente/2022/09/para-e-sintese-de-desafios-e-problemas-da-amazonia.shtml>.

²⁹ CORREIO PARAENSE. 2021. Trabalhadores são resgatados em garimpo ilegal no município de Almeirim (PA). <https://correioparaense.com.br/2021/08/10/trabalhadores-sao-resgatados-em-garimpo-ilegal-no-municipio-de-almeirim-pa/>.

³⁰ FAO - Food and Agriculture Organization of the United Nations. The State of the World's Forests 2022. <https://www.fao.org/3/cb9360es/cb9360es.pdf>.

³¹Climate risk profile. https://www.climatelinks.org/sites/default/files/asset/document/2018-April-30_USAID_CadmusCISF_Climate-Risk-Profile-Brazil.pdf

the public health system, which is already precarious in Amazonian countries, even in the absence of these events (ELLWANGER, et al., 2020).

Significantly reduced rainfall in the Amazon rainforest will affect the regional hydrology, increasing the vulnerability of ecosystem services for the population inside and outside the Amazon region (MARENGO et al., 2018).

Drought aggravated by lack of rain and logging increases the risk of forest fires (MARENGO et al., 2018). Drought-induced Forest fires in the Amazon have largely contributed to Brazil's national-level carbon emissions (Aragão et al., 2018³²). Furthermore, large-scale deforestation of the Amazon rainforest associated with climate change will increase the risk of exposure to extreme heat, potentially affecting regions where highly vulnerable populations reside (OLIVEIRA, et al., 2021³³).

In the last three decades, more intense floods and ebb tides have occurred in the Amazon basin, and extreme events have occurred at shorter intervals. Based on records made in the Port of Manaus in the early 20th century, flood events occurred at an interval of 20 years. At the beginning of the 21st century, this interval has decreased to 4 years, and besides the natural causes related to these events, the high level of CO₂ in the atmosphere, which has been gradually increasing over the decades, has contributed to the change in the water circulation in the oceans, causing more abundant floods (O ECO, 2021³⁴).

This scenario has been reflected in the region where REDD+ Jari Pará Project is located, and in 2022, the Jari river reached historic levels, affecting more than 18,000 people in the Vale do Jari region, leaving several families homeless and putting their food security at risk (AMAPÁ STATE GOVERNMENT, 2022³⁵). In 2021 the municipality of Almeirim received community aid due to major impacts caused by flooding and heavy rains, leading the municipality to declare a situation of emergency (GLOBO PARÁ, 2021c³⁶).

In addition to the references above, a socio-economic and environmental diagnosis was carried out in the area of the REDD+ Jari Pará Project, an evidence that brings community perceptions about some issues related to climate change, through the field diagnosis carried out with some communities, Figure 4 presents these perceptions and concerns raised.

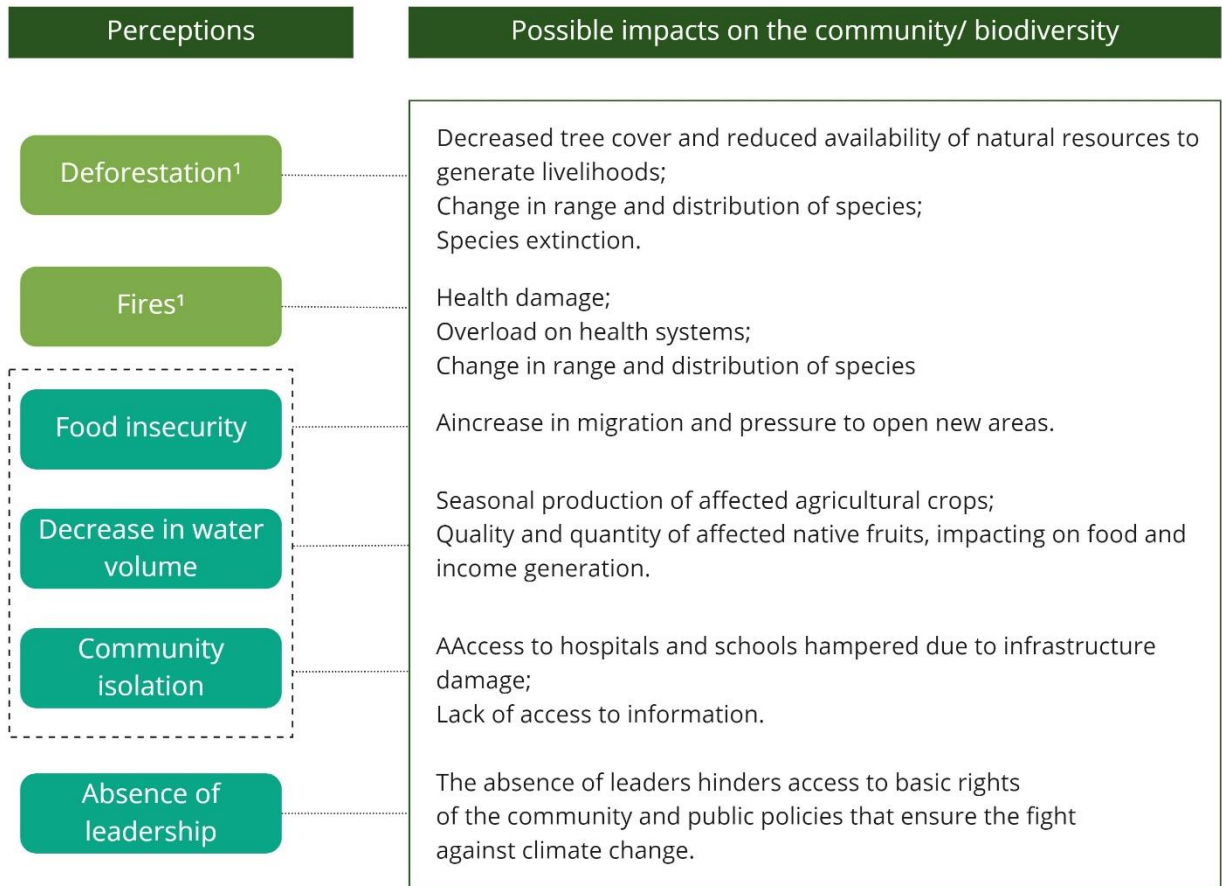
³² ARAGÃO, L. E. O. C. et al. 21st Century drought-related fires counteract the decline of Amazon deforestation carbon emissions. 2018. Nat. Commun.

³³ OLIVEIRA, B. F. A. et al. 2021. Deforestation and climate change are projected to increase heat stress risk in the Brazilian Amazon, doi: <https://doi.org/10.1038/s43247-021-00275-8>.

³⁴ O eco, 2021. <https://oeco.org.br/reportagens/cheia-historica-no-amazonas-e-uma-mistura-da-variabilidade-natural-com-mudancas-climaticas/>.

³⁵ AMAPÁ STATE GOVERNMENT, 2022. <https://www.portal.ap.gov.br/noticia/2705/vale-do-jari-governo-amplia-atendimentos-as-familias-atingidas-por-enchente>.

³⁶ GLOBO PARÁ, 2021c. <https://g1.globo.com/pa/santarem-regiao/noticia/2021/06/17/belterra-e-almeirim-tem-r-14-milhao-liberados-para-compra-de-kits-de-ajuda-humanitaria.ghtml>.



¹ Deforestation and fires, in addition to the possible impacts presented, are anthropic factors that aggravate the global warming process, with the intensification of the release of greenhouse gases (GHGs).

Figure 4. Insights obtained from the Socio-economic and Environmental Diagnosis, and correlation with its possible impacts.

The conclusion of the diagnosis also pointed out that in a scenario without the project, the demand for financial resources would put pressure on forest resources due to the increase in unplanned and predatory agro-extractive activities and would lead to an increase in illegal forest exploitation activities due to the low formal education and a resulting difficulty to the local population to get paid jobs. Therefore, the anthropic actions that suppress the natural areas in the Project region have the effect of intensifying the problem of global warming and, consequently, the climate change.

iii. Required and planned measures for adaptation (GL 1.3)

Faced with the challenge of projections of a warmer and drier environment for the Amazon, it was found that the project already comprises a series of beneficial activities to assist communities and biodiversity in adapting to climate change, among which we highlight:

- The fight against deforestation, preventing the loss of forest cover, thus acting at the core of the climate change issue, aiming to contain the emission of greenhouse gases, and preserving the habitat of species;
- The strengthening of family agriculture and sustainable extractivism, with pillars in food security, aiming to guarantee availability, quantity, quality, and access to food. With technical support activities that aim to dynamize and diversify the sustainable production of agricultural systems, increasing the capacity of crops to adapt to climate changes and variations;
- Environmental education, through various axes, helps the community to understand the challenges of long-term conservation and the support capacity of the land and the sustainable use of natural resources, fire prevention, and the implementation of less aggressive practices to the environment on rural properties;
- The strengthening of communities, which are organized are better able to face the challenges associated with climate change, allowing them to better adapt to changes in the environment and social conditions, appropriate their needs and tools to better manage the processes of climate change;
- Support in the installation of infrastructure, facilitating access to energy in remote areas, and having as an opportunity the availability of solar energy for photovoltaic generation, benefiting and increasing the security of energy supply, as an adaptation option to the predominant hydro source in the electricity matrix;
- Biodiversity monitoring enables a better understanding of the dynamics of local species and thus the development of effective strategic plans for their conservation, through adaptive management, allowing the perpetuation of wildlife in the long term, associated with the containment of unplanned deforestation and, consequently, the maintenance of natural habitats and the reduction of loss of landscape connectivity.

The activities relevant to climate change adaptation and their respective benefits achieved through project execution are detailed below.

Project activity	Scope	Climate change risks and concerns addressed	Adaptation benefits
Monitoring deforestation and improving property surveillance	Climate	<p>Unstructured land use conversion</p> <p>Detection of risk and conflict areas</p> <p>Damage caused by forest fires</p> <p>Low traceability of deforestation vectors</p>	<p>The monitoring of deforestation carried out by the surveillance team in the project area significantly reduces the occurrences of unplanned deforestation, and consequently generates a reduction in greenhouse gas emissions from these practices. The constant physical presence is a determining and fundamental factor in containing the actions of deforestation agents.</p> <p>Through remote monitoring carried out by high-resolution satellite images, patrolling and surveillance, in line with and supporting the environmental agencies, actions are intensified to promote and maintain the vegetation cover and, consequently, biodiversity conservation and the natural resources enjoyed by communities, to mitigate global climate change.</p>
Strengthening of Family Agriculture and Sustainable Extractivism	Social	<p>Threat to the food sovereignty of families</p> <p>Decreased income generation</p>	<p>It is expected that the communities will be able to conduct their farming effectively and efficiently, produce food and generate income without requiring to open new areas, and recover already impacted areas, valuing sustainable land use and perpetuating the benefits to themselves, the climate and biodiversity.</p> <p>The Technical Assistance and Rural Extension service, focused on the insertion of new production techniques and technologies, such as the implementation of agro-forestry systems, shapes the transition from a conventional production system to a low carbon agriculture.</p> <p>In addition, there is also the Low-Impact Multiple Use Forest Management axis, which is based on encouraging good extraction practices that allow the exploitation of timber and non-timber forest resources by the community, with the aim of promoting income diversification, as well as improving the management of the territory and the protection of the forest in the long term.</p> <p>TARE activities also support the development of local production chains, with gains in scale and quality, helping families to be more independent and have greater income diversification, consequently mitigating the impacts of climate change by increasing food</p>

Project activity	Scope	Climate change risks and concerns addressed	Adaptation benefits
			security, respecting the social and environmental functions of rural properties, conserving biodiversity, and giving local producers autonomy.
Promotion of environmental education	Social	Fires Environmental degradation Loss of biodiversity	The environmental education actions guide, disseminate and spread information to the communities about environmental practices through lectures, campaigns, and workshops with the theme of environmental degradation, recovery of degraded areas, fire prevention, environmental legislation, among others. Specifically, regarding forest fires, the dissemination of emergency response practices provides subsidies to the community to face the incidents, as well as teaching and guiding about the risks to health and biodiversity. In general, the approach of these axes helps in the perception of individual impacts on the environment, encourages sustainability and social participation, making the community a key player in the reflections about the need to adapt to the challenge of climate change.
Strengthening associativism and cooperativism in the communities	Social	Population migrations Difficult access to public policies	The project works to strengthen associativism and cooperativism in the communities, as well as being active when it comes to the access of community members to public policies, being both a means by which community members seek information about their rights and a link between them and the competent bodies. Strengthened communities to be better skilled managing the required adaptations to climate change. Social organization also allows for better articulation in the access to public policies and recognition of rights.
Construction of infrastructure for the communities	Social	Isolation Energy Crisis	Supporting the infrastructure of communities allows them to break out of a situation of isolation, and some alternatives reduce dependence on overloaded systems.
Biodiversity Monitoring	General and Biodiversity	Habitat fragmentation Population decline	The project conducts scientific studies focused on Biodiversity and Environmental Impacts, this activity allows to monitor and mitigate impacts related to biodiversity, maintenance of gene flow,

Project activity	Scope	Climate change risks and concerns addressed	Adaptation benefits
		Species extinction	<p>regulation of water flow and water quality, nutrient cycling, soil protection, shelter for fauna, supply of food, fiber and other products for local communities, scenic beauty, maintenance of ecological corridors, and so on.</p> <p>This activity also includes monitoring sensitive species, i.e., species with some degree of threat, according to the IUCN list of endangered species found in the region and guiding and encouraging scientific research in the project area.</p> <p>In addition, it also aims at constant monitoring in areas of high conservation value for communities and biodiversity.</p> <p>The lack of data on species and their behavior in the face of environmental changes is a major bottleneck for the implementation of an adaptive management plan, especially in the face of climate change. As the impact of climate change is still a very incipient subject, the continuous monitoring and evaluation of the Project will ensure that the necessary adaptations for biodiversity are taking place.</p>

Finally, it is understood that a deviation does not affect the applicability of the methodology, the additionality, or the adequacy of the baseline scenario, once the activities to achieve the Gold Level are already included in the Project by design.

Project Proponent - New Partner

In July 2021, Ambipar Participações e Empreendimentos S.A. completed the acquisition of 53,6% of capital shares of Biofílica Investimentos Ambientais S.A. The main purpose of this transaction was to accelerate the company's growth, enhanced by Grupo Ambipar, as a result, the company has expanded its portfolio of available environmental services.

As a consequence of this acquisition, the company underwent a nominal change, deliberated at an extraordinary general meeting, and was renamed Biofílica Ambipar Environment Investments S.A. The arrival of a new partner (Ambipar) at Biofílica Ambipar Environment did not change its Social Subject, which continues to be strongly related to the promotion and financing of activities related to the environment and environmental conservation. A detailed description of the same can be found in Article 3 of the updated Bylaws of the company, provided to VVB. The arrival of a new partner will also have a positive effect, once the contribution of resources, expertise and economies of scale will allow Biofílica to advance more consistently and rapidly in its activities related to the environment and environmental conservation.

Additionally, there are no contractual or other legal implications to the contract with REDD+ Jari Pará Project, or any other project implemented by Biofílica Ambipar Environment prior to this transaction, as a result of the entry of a new partner of Biofílica Ambipar Environment. The main objectives of the investments in this transaction are the development of technology and expertise regarding NBS – Nature Based Solutions.

Availability and dissemination of printed versions of project documents

Hard copies of project documents are available at the Fundação Jari's office, focused mainly for reference by the institution's technical staff. However, their availability was not disseminated within the institution to other stakeholders during the monitored period, as described in the Project Description document (section 2.3.1). This activity is part of the theme of activities called "Stakeholder access to project documents".

Therefore, the proponents consider the occurrence of a deviation from what was initially provided in the Project Description. Nevertheless, there were no impacts on the criteria of application and appropriateness of the methodology, and on the additionality of the Project.

Even though the printed version was not produced, other work fronts and activities were carried out focusing on the dissemination of documents and project information, thinking mainly about adapting the technical language to a more easily understood content.

A Monitoring Guide for Vale do Jari REDD+ Program was prepared (including REDD+ projects in Pará and Amapá), comprising 03 volumes: 01. Projects, activities and indicators; 02. Stakeholders and their actions and 03. Project Monitoring. This material created through joint efforts by Biofílica Ambipar

Environment with Fundação Jari and gathers in didactic and objective way the concepts, definitions, information, responsibilities, and procedures related to projects, providing accessible knowledge and help improving the best management practices, also serving as a tool to stimulate and strengthen the engagement of stakeholders in the project development, management, and governance.

It is understood that a non-dissemination did not generate impacts, since the Project's information and documents are available in several digital channels, as well as disseminated in the Project's routine activities.

Additionally, the proponents will elaborate new ways of disclosure with the communities, so that they have access to the documents in a more didactic way (e.g. a summary of the Monitoring Guide, collecting signatures of those involved).

Fundação Jari Memo and Grupo Jari Memo (in the PDD named Circular Fundação Jari and Circular of the Grupo Jari)

In this project, the creation of the Fundação Jari Memo and Grupo Jari Memo was planned, as a vehicle to spread written information to the Project actors, as described in PDD. This activity is also part of the activities theme named "Stakeholder access to project documents" (section 2.3.1). However, the memos were not implemented within the monitored period.

Although this is a deviation, the absence of this activity did not impact the smooth progress of the project, since the focus has been on dissemination through social networks, websites and e-mail (VCS and Biofílica websites, Facebook, LinkedIn, and Instagram), in addition, during the period 2018 to 2021 news of the Project was reported in the local Tribuna Regional Newspaper (about 44 news items in the period).

Therefore, the stakeholders had access to news and information related to such period, together with the community members, and this dissemination of information also occurred at the time of technical support, and it is also worth mentioning that several contact channels are available for requesting information.

REDD+ Technical Chamber (REDD+ Technical Board or Technical Council)

The PDD presented different nomenclatures for the same activity, thus, it is clarified that the terms "REDD+ Technical Board" and "Technical Council", also related to the REDD+ Technical Chamber.

It was planned in the PDD, section 2.3 "Stakeholder Engagement", that information and news about the Project would be transmitted orally by the Technical Chambers. However, this activity did not occur mainly due the priority in the Project's dynamics, of other activities that presented greater urgency of execution and resources, as for example, focus on the activities for conducting the Jari Amapá project's audit.

The restrictions imposed by the pandemic making in-person activities impossible in the years 2020 and 2021, and the reduction of the staff at Fundação Jari also impacted the execution of the activity, as they were addressed to more urgent activities. Among other factors, the high cost of the dynamics of

carrying out the activity and the attention focused on the Group's Judicial Recovery process are also noteworthy.

It is important to emphasize that although the Technical Chamber was planned as an important channel of communication and listening among the stakeholders, its absence did not impact the project's indicators due to the strategy adopted from the beginning to fill this gap. Communication with community members was focused on TARE services provided by the technicians, workshops, lectures, and courses. In addition, several active communication channels are available (suggestion box, feedback channel "Contact Us" by e-mail or telephone).

The information was transmitted through the public consultation carried out in 2019, meetings held with the Fundação's technicians, meetings between the Fundação and Biofílica (started in 2021), meetings to align the Fundação Jari and activities of TARE with community members, including meetings. In addition, a Project Monitoring Guide was prepared and trained, which brings together, in a didactic and objective manner, concepts, definitions, information, responsibilities, and procedures. The expectation is a change in the positioning of the Foundation's technicians in their dealings with community members, making clear to the other stakeholders the relationship between the activities carried out by Fundação Jari with REDD+ projects.

It is planned that the Technical Chamber activity will resume and follow the following structure: holding annual meetings (beginning and end) of the year with the technical partners, EMATER, SEMA, extension, promotion and education body). At the beginning of the year, the entire planning of the Fundação Jari for the period and at the end of the year the results of activities performed (this activity will be implemented after the resolution of the legal situation of the Grupo Jari, to avoid potential conflicts with the participating parties).

For dialogue and exchange with the communities, it is planned to hold annual public consultations, where the results of the work of Fundação Jari in the year, promoting a participative evaluation of the deliveries and suggestions, and improvement points will be raised that can be increased in the following year's planning of the Fundação, ensuring the engagement of communities in the decision-making process.

In addition, the project proponents will develop new ways to disseminate the results to the communities in a more didactic way. A positive impact is expected considering the continuity of the activities, in addition to using the Monitoring Guide as a tool to stimulate and strengthen the stakeholders engagement for project development, management, and governance, as well as the resumption of Technical Chambers in a new format, focused on exchange between technical institutions that are the project partners.

Description of community dynamics in the REDD+ project

Initially it was provided in the PDD, section 2.1.9 "Description of Actors", that the Project activities would benefit 07 communities located in the Project Area (Recreio, Cafezal, Serra Grande, Nova Vida, Area 127 and 60, Braço and Bandeira). Os projetos do Programa REDD+ Vale do Jari have gone through

a few cycles over the years, and the work done with the communities has also been updated. Along with the development of the activity governance by Fundação Jari, they understood that all communities, families, associations, and organizations receiving some support and service from Fundação Jari are included as beneficiaries of Vale do Jari REDD+ Project, once the investments coming from REDD+ are the main funding source for activities promoted by the Fundação in the region.

By expanding the scope of affected families and communities, the Foundation's socio-environmental work obtained greater engagement from local communities and institutions in the program strategies to reduce emissions from deforestation, and environmental degradation in Vale do Jari, spreading a "collective awareness" in the region, about the importance of keeping the forest standing and enjoying the social and economic benefits generated by the valuation, in the carbon market, of the environmental services that the standing forest promotes in favor of the climate balance, the well-being of the communities, and the conservation of biodiversity.

However, for families and communities to enjoy these benefits, it is necessary that they make a commitment to good practices of soil, water and forest use and conservation, through the environmental regularization of their possessions and properties (family and community), the recovery of degraded areas, of the controlled use of fire or the substitution of traditional burning for low-impact mechanized family farming, in addition to collaborating with the environmental public inspection Organs (fundamental partners of the program), in denouncing illegal practices such as irregular burning, illegal wood extraction, hunting and predatory fishing, and so on.

In summary, when joining the projects (by means of an Adhesion Agreement), the individual or family must agree to keep the forest areas on their property standing, through the sustainable use of the soil and the forest and respecting the forest code legislation in effect.

As part of the program, such forest protection will be monitored on a timely basis by satellite images and field activities, and, with the effective conservation of these reserves, the community will be able to financially benefit from the sale of carbon credits, such as rural technical assistance and other material support.

With the expansion, the "Property Use Plan" activity was not carried out, once it was executed in the action field and the focal communities were no longer being monitored more closely, resulting in a loss to follow-up such evolution. However, now the Project has a broader scope supporting the work of the Fundação Jari, reaching a larger number of communities and families, demonstrating more clearly the real impact of maintaining the Fundação and REDD+ project in the Vale do Jari.

Monitoring indicators

Throughout the monitored period, it was noticed that some indicators, initially established, had difficulties in being raised and/or suffered changes in their metrics. It occurred especially due to a failure to record such information and/or a delay in meeting the previously established schedule, with the priority of other activities.

All the changes that occurred in activities and indicators that underwent some kinds of adjustment in their parameters and/or were not quantified during the monitored period and their respective justifications are listed below:

The indicator "Frequency of publications of the Activity Reports" will no longer be monitored, this being a permanent deviation in the Project. Although provided in the PDD, as the Project matured, it was understood that this indicator is not relevant to the Project results. It is worth highlighting that Fundação Jari continues to report in its annual reports the main activities that occurred in the period, as well as the TARE team makes available its attendance sheets and activity reports, and by implementing the TARE Application (described in section 2.2.13), the activities carried out in the scope of rural assistance will be controlled digitally, allowing greater control and tracking of evidence.

The indicator measured as "Number of people trained" initially provided in the PDD will now be "Number of participations", due to the need to optimize the count and the volume of evidence received, as well as a detailed analysis of the relevance of the indicator's information. It is understood that a training offered is more important than the number of times such individual trains, so it will count according to the number of attendance in the Project's activities. Due to the large volume of information received, all the evidence received was systematized and organized by type of activity, and finally counted, in a spreadsheet system that allows a quick view of the information from the files received in several formats, avoiding double counting. The change in this indicator does not bring losses to the Project results, optimizes management time and consolidation of results by using metrics that illustrate the scope of the project more clearly.

Strengthening of Family Agriculture and Sustainable Extractivism: Now, the indicator "**Number of producers benefited by the REDD+ Project**" will have the data on "number of people involved" instead of "number of families involved", since many services were provided, tracking and identification of people belonging to the same family would be subjective, it was decided to count the number of people who received some kind of TARE service, whether it be field advice, support with the donation of inputs for production, support for environmental regularization and/or support for access to public policies and financing (documentation). It is expected that by using the TARE Application, the activities carried out in the scope of rural support will be controlled digitally, allowing greater evidence control.

Monitoring of the flora: Initially it was provided in the PDD for forest dynamics assessment to be carried out every 05 years. In July 2022 a Technical Cooperation agreement was signed with IFAP, starting the monitoring activities that, due to delays in the schedule, were concluded in December 2022. The delay occurred due to several factors, such as the financial problems faced by Grupo Jari during the period, and the priority of activities according to the dynamics of the projects, such as the REDD+ project audit in Amapá.

In addition to the delay in the assessment by forest dynamics, the frequency of permanent parcel monitoring will be changed to encompass the requirement for other certifications, such as CERFLOR and the frequency will now be every 2 years.

Although the frequency has been changed to a shorter monitoring period, which will have a positive impact on the activity, during the monitored period there was a gap of 01 year between the initially planned completion of field activities, which was fulfilled only by remote monitoring via satellite images, affected by a greater spacing between information.

It is expected that more frequent monitoring (every 2 years) will have a positive impact, allowing greater data generation and consequently more information to support studies and to understand the forest dynamics.

In addition to the agreement signed with IFAP to start the work, the results of the 2020 Biodiversity monitoring report for the Amapá project were used as input, showing a good relationship between the areas and the maintenance of ecological corridors. In addition, satellite monitoring and surveillance actions ensured the maintenance of tree species, although without much detail on the evolution of biodiversity rates.

2.1.4 Risks to the Project (G1.10)

The risk assessment was performed by applying the tool approved by VCS "AFLOU Non-Permanence Risk Tool, v. 4.0", verified the likely natural and human-induced risks to the climate benefits, reported in the Non-Permanence Risk Report of the REDD+ Jari Pará Project, as summarized in the table below.

Table 1. Final score of the non-permanence risk for REDD+ Jari Pará Project.

Category	Punctuation
a) Internal Risk	0
b) External Risk	10
c) Natural	1
General score (a+b+c)	11

During the monitoring period, the likely risks to the expected climate, community, and biodiversity benefits during the Project’s life cycle were identified, as well as their respective mitigating measures, listed below in Appendix 1.

2.1.5 Benefit Permanence (G1.11)

To maintain and enhance climate, community, and biodiversity benefits beyond the project duration, the following mechanisms are listed:

Improved procedures for asset surveillance and conflict management: The actions for property surveillance, specially related to monitoring areas through satellite images have occurred since the project validation. In 2015, land and river patrols and operations were initiated to ensure the protection of Jari's land holdings, prevent deforestation, forest fires, and the illegal extraction and trade of timber and other products, as well as predatory hunting and fishing.

As an additional tool, remote monitoring was implemented in 2020 using high-resolution satellite images that enable detailed monitoring of the dynamics of land occupation, and training was carried out for the patrimonial surveillance team to increase the efficiency and reduce costs of patrimonial surveillance operations. Therefore, the surveillance operations received an increase in the intelligence process related to monitoring and land management. The monitoring procedures will continue to be updated whenever necessary, which will directly reflect in the maintenance of the climate benefits in the long term.

In addition, the Project has worked in the communities to manage conflicts and create community councils, management strategies that pacify and organize coexistence in the territory and strengthen ties between communities, as well as formalizing the institution of leaders who represent the community and are the spokespersons for their demands.

Sustainable socio-economic development and social organization: Through actions aimed at strengthening associations and cooperatives, social entrepreneurship was stimulated, rescuing the values of associativism. The purpose of advisory was to ensure a higher organization level of the institutions, combining planning, production, and trading, allowing agro-extractivists and small entrepreneurs to have access to knowledge and adapted tools, management and commercial practices on their properties, learning good sustainable management practices, through incentives, technological innovation and adding value to regional products, prioritizing agro-forestry crops and traditional production systems that supplement the food and nutritional security of families, in addition to these focal activities of the advisory services, support was also provided to regularize some associations/cooperatives, allowing them to access the formal market, an important channel to increase the generation of income and jobs.

Technical Assistance and Rural Extension Service (TARE), workshops and training in agroforestry and agricultural techniques: The main activity carried out with the community members since the project start through actions by the Fundação Jari, support, training and direct capacity building for producers were carried out based on the joint construction of knowledge and the most suitable techniques for each family and community, enhancing the knowledge already mastered by the community members through integration with complementary information, thus giving more autonomy to the producers (see sections 4.1.3, 4.2.2, and 4.3.1). In the scope of the TARE activities, services were also provided to support the Rural Environmental Registry of the properties, acting on the environmental suitability front, as well as, support services were provided to issue the Declaration of Aptitude to the National Program for the Strengthening of Family Farming, an identification document for family farming, essential for the family

farmer to access the PRONAF (National Program for the Strengthening of Family Farming) credit lines and also at least 15 other Public Policies of the Federal Government.

Through technical training and capacity building in rural production, agricultural and forestry techniques according to family interests, the project expects to make producers capable of implementing adequate agricultural and forestry techniques, enabling constant production and income generation. It is expected that at the end of the project the communities will be able to manage their farming effectively and efficiently, produce food, and generate income without the need to open new areas, perpetuating the benefits to themselves, the climate, and biodiversity.

Far beyond training, TARE service was a link between the community members and the Fundação Jari, providing a bridge for the exchange of information and ongoing consultation on the expectations and interests of the community members, both at formal meetings and during informal meetings, which was of fundamental importance for the smooth running of the project.

Strengthening the Fundação Jari: Fundação Jari acts as a key player in the development of social activities within the project. Therefore, the purpose of the Project's activities is to consolidate and improve what is already being done by the Fundação in the Project Zone. The number of communities initially covered by the Project (07) was extended to all the communities reached by the Fundação, which was only possible due to the Fundação's structuring and organizational capacity within the Project, which also relied on internal training to be able to provide assistance to all these communities.

It is expected that when the Project is completed, Fundação Jari consolidate itself as an institution to promote business based on sustainable productive chains, having a qualified technical team that is sufficient to serve the communities and the application of partnerships, with lines of action that aim at its financial sustainability, resulting in the generation of consistent and continuous impacts in the long term.

Increased scientific knowledge on Biodiversity and Maintenance of High Conservation Value Attributes: The first study conducted on biodiversity was in 2016, during the design of the project, serving as a foundation for the implementation of the long-term monitoring plan for Biodiversity and HCVA's. As a strategic measure for the project, a partnership was formalized with the IFAP (Federal Institute of Amapá) to carry out jointly with the Fundação Jari, Teaching, Research and Extension activities in the Vale do Jari region, focused on biodiversity monitoring activities of the projects, as well as those associated with the xylotheque and museum. Therefore, it is expected to continue monitoring the benefits that directly affect biodiversity, in addition to generating and spreading knowledge about the region, highlighting especially the importance of conservation and sustainable use of forests for wildlife and plants.

Environmental education program: The environmental education activities carried out have a focus on the problematic of environmental degradation, the importance of recovering degraded areas, fire prevention, conscious consumption, and compliance with environmental legislation. Given the importance

of environmental education, the lectures were also held in schools and sometimes in a playful way, through community cinema. The theme of firefighting and fire control was the most worked on in the scope of environmental education, linked to the TARE work, are essential for the presentation of techniques for soil preparation and management, less aggressive to the environment.

Also noteworthy is the importance of the Jari Museum's Xylotheque, set up in 1968 to preserve and increase knowledge of the Amazon Rainforest heritage, which is maintained with support from the Project. The aim is to generate positive impacts for the communities and biodiversity, seeking to maintain this collection over time, in addition to promoting the importance of these collections both for scientific purposes and for environmental education, raising awareness and disseminating the importance of biodiversity in the Jari Valley and preserving the forests and their species.

Environmental education activities will be carried out on an ongoing basis, spreading knowledge and training the community members for their skills, attitudes and competences required for both individual and collective actions, thereby strengthening their participation in decision-making processes focused on environmental conservation and land management in the search for solutions to current and future environmental problems, allowing not only to understand about sustainable development, but also a sense of belonging and responsibilities to the community.

2.1.6 Grouped Projects

Not applicable. REDD+ Jari Pará Project is not a Grouped Project.

2.2 Stakeholder Engagement

2.2.1 Stakeholder Access to Project Documents (G3.1)

During the monitored period, the focus of the communication actions by REDD+ Jari Pará Project was through virtual media, although voice and written communication with the involved parties was also maintained and implemented, to ensure access to the documents and all other project information, as described below.

Written: the project proponents understand that the content contained in the PDD, and the monitoring reports prepared, even in Portuguese, are extremely technical and, many times, difficult to understand when read by the communities, or even partners that are not very close to the theme. For this reason, during the monitoring period a Monitoring Guide was elaborated, which presents in a didactic and objective way, concepts, definitions, information, responsibilities, and procedures related to the Project. Project information and news were also published in the local Tribuna Regional newspaper between 2018 and 2021.

Virtual: documents related to the Project are available through virtual means on Verra and Biofílica Ambipar Environment Websites News, news about the Project is published in the Bulletin of Biofílica

Ambipar Environment through social media and in the Jari News newsletter, an initiative implemented in October/2022, broadcast internally between Biofílica, Grupo Jari and Fundação Jari, which presents an overview of the activities carried out on a weekly basis. During the monitored period the Grupo Jari e Fundação Jari websites have been discontinued, even though the renovation of the Foundation's website has started, it was not completed until 2022. The expectation of the proponents is that in the coming years this channel will be implemented and will make available the documentation related to the project.

Voice: although the Technical Chambers did not take place as reported in section 2.1.3, Information and news about the project was transmitted orally at events and through meetings between the council of farming communities and technicians, at TARE meetings, and other opportunities for contact between stakeholders and the project proponents.

Additionally, the communities that are not directly involved in the Project development, but as part of the Project area, received important information from similar dissemination tools. Figure 5 below shows some examples of the materials disseminated to stakeholders by the communication.



Figure 5: Examples of publications and news releases (Jari News, local newspaper, and Instagram).

2.2.2 Dissemination of Summary Project Documents (G3.1)

The documents related to the Project are available by virtual means on websites of **Verra** and **Biofílica**. News and updates about the project were published in the Biofílica Bulletin through social media such as Facebook, LinkedIn, and Instagram, and through e-mail distribution to a pre-selected mailing list. Although the Technical Chambers did not take place as reported in the section 2.1.3, an information was passed between stakeholders and project proponents through the public consultation held in 2019, meetings held with the Fundação's technical staff, meetings with Fundação and Biofílica, and alignment meetings at Fundação Jari.

The implementation to spread the Jari News newsletter weekly e-mail allowed partners and teams engaged in the project to keep up to date with the activities being carried out.

In addition, the Vale do Jari REDD+ Program Monitoring Guide was prepared, including 03 volumes (01. Projects, activities, and Indicators; 02. Stakeholders and their actions, and 03. Project Monitoring) from the joint efforts by Biofíllica Ambipar Environment with Fundação Jari and gathers in didactic and objective way the concepts, definitions, information, responsibilities, and procedures related to projects, providing accessible knowledge, and helping to improve the best management practices, also serving as a tool to stimulate and strengthen the engagement of stakeholders in the development, management, and governance of the project. The training for the use of the guide was carried out with Fundação Jari in November 2022. The expectation is that the FJ technicians will change their behavior when dealing with community members, talking more about the REDD+ project.

It is planned to start in 2023, the annual public consultations to be held with community members and other stakeholders, where the results of the work of the Fundação Jari, promoting a participatory evaluation of the deliveries and will raise points for improvement that can be increased in the planning of the following year, ensuring the engagement of communities in the decision-making process. Furthermore, based on the training carried out with the Monitoring Guide, these activities may include the dissemination of project information to the communities in a more didactic way.

2.2.3 Informational Meetings with Stakeholders (G3.1)

In the monitored period, internal meetings were held with Biofíllica, Grupo Jari, and Fundação Jari, on monitoring and planning activities and actions related to the Project and meetings with institutions such as the Agriculture and Environment Secretary of Almeirim.

In 2018, Participatory Diagnostic Workshops were carried out in the REDD+ Jari Pará Project with 09 communities involving the participation of 49 community members, where information related to the Project was presented in a proper language for the attending audience using mediation techniques. Fundação Jari also held meetings to present the Project in 06 communities (Braço, Bandeira, Cafezal, Nova Vida, Recreio, and Serra Grande), with attendance and engagement of 172 community members.

The Public Consultation in April 2019 was significant, requested at the time of the PDD validation and verification process audit (covering the years from 2014 to 2017), involving community leaders of Almeirim, region of the Paru River and Monte Dourado to present the project and being an open listening channel, so that participants could ask questions and make suggestions, focused on expanding and strengthening the communication channels of the REDD+ Project with stakeholders, directly and indirectly, impacted by their further actions. The public consultation involved the adhesion of more than 150 actors.

In addition to meetings with community and institutional members related to Fundação Jari, on April 18, 2019, and July 16, 2021 meetings were held to present the results of its activities held among its internal teams.

Between November 7 and 11, 2022, a technical visit was made by Biofíllica to the Project, covering the following topics: training of the Monitoring Guide, planning of the Public Consultation 2023, and alignment and review of strategies for verification.

The proponents considers that it is important to highlight, due to the COVID-19 pandemic since 2020, many project activities were restricted, in addition to financial problems occurred in the Grupo Jari also affected the performance of activities, such as face-to-face meetings with community members. In these periods of crisis, activities focused mainly on the demands from community members were prioritized, such as TARE services and conflict resolution processes.

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

REDD+ Jari Pará Project has been conducting certain strategies to address potential risks, costs and benefits with the communities and other stakeholders, ensuring effective engagement in the process with free, prior and informed consent. These strategies were based on Public Consultations, meetings for Project presentation, exchanges between communities, TAREs visits, and communication strategies with open dialogue provided by Information tools, Feedback Channels and the Complaint Redress Procedures, Conflict Management and Stakeholder Communication procedures, which are described in the section 2.2.7.

It is worth noting that these communication channels aimed to preserve and stimulate rapid dialogue, mainly by TARE visits, being a space for consultation, complaints, suggestions for stakeholders, and include, among other communication strategies implemented, the sending of requests, suggestions / or complaints, through suggestion boxes (Contact Us), contact forms and telephone channels. Although the Technical Chamber was discontinued with the communities in the monitored period, relevant and adequate information to the communities, such as appropriate and relevant information about costs, risks, and potential benefits to the communities were disseminated through the strategies already mentioned.

In addition to the benefits already mentioned in section 2.1.5, from November 2020 to February 2021, an Assessment of the Impacts from Social Projects on Communities was carried out by Di Ciero, with the purpose for surveying and understanding project contributions in transforming the lives of the beneficiaries, generated benefits, contributions to a change in awareness, the occurrence of any negative impacts, whether the beneficiaries were relied on the projects, and the ongoing actions. The results of this evaluation show that for the community members who affirmed that their communities benefited from the Project, the most common transformations that occurred are the improvement in the quality of life of the families, achievement of independence, significant increase in income, and getting a job to implement the productive chains ³⁷.

Therefore, the collected evidence of action in several communication channels demonstrated the project has participative and transparent communication spaces with open channels for dialogue, construction, and adaptation.

³⁷ Di Ciero. Relatório de Avaliação de Impactos dos Projetos Sociais nas Comunidades. Área do Projeto Jari. setembro, 2021, p.13.

2.2.5 Information to Stakeholders on Verification Process (G3.3)

REDD+ Jari Pará Project has adopted different communication strategies for the verification process in the CCB standard. These strategies were targeted at local partners and institutions, involved communities, and society at large.

The public consultation process is planned to start in the last week of January. This activity was planned to start in November 2022, however, due to financial and operational difficulties of Fundação Jari, the activity has been postponed until 2023. The consultation will be structured in three stages:

1. Field visit to each community for individual disclosure of the REDD+ Projects in the respective regions;
2. Meetings with community leaders and institutional partners for detailed explanation of the REDD+ theme, its processes and operation of the projects;
3. Communication with society in general.

Therefore, considering all stakeholders, the actions that will be carried out are described below:

Communication with local partners and institutions: the public consultation process was disseminated online via social networks, websites, and e-mail of Bioflicca and Fundação Jari, Letters were sent along with Project folders in order to communicate the process and schedule a meeting with the parties. The purpose of these meetings is to present the REDD+ Project, based on training principles and contents from the drawn up monitoring Guide, focusing on verification process context, by explaining and updating the project's actions, especially the new communication strategy based on annual public consultations with the communities and the distribution of benefits, and adherence to the project by the communities.

Communities in the Project Zone: all communities will be communicated through various communication channels. By phone and radio (where applicable), and through direct contact from the Fundação Jari's communication campaign. The campaign will be carried out through a home visit to as many residents as possible in the communities located within the Project Zone.

The definition of the communities participating in the Public Consultation will be based on the same criteria as the socio-environmental study³⁸, using the updated pre-existing community base for Pará State, including 86 names.

During the visits the following materials will be provided:

- ✓ Informational folder containing images and instructing, and detailed information, in addition to the project's communication channels;
- ✓ Envelope for written comments to community members that can't or don't want to talk on the phone, and can deposit their suggestions, questions, and complaints in the suggestion box;

³⁸ Technical studies to evaluate the impacts of social projects, perception of social impacts, historical-cultural, socioeconomic-environmental characterization of the communities, socioeconomic-environmental diagnosis of the municipalities, and mapping of the rural production chains, carried out by Di Ciero.

- ✓ A questionnaire to be applied by technicians from Fundação Jari, on the perception of community members about climate change in the region.

In this same process, the signature of receipt of the letter of consultation and other items will be collected, as well as the photographic record of the delivery and the collection of geographical coordinates at the delivery location.

Holding meetings with community leaders: the second stage of the public consultation process will consist of a presentation in the format of the Monitoring Guide training, held in 2022 with the Grupo Jari, for the main leaders of the selected communities, with the responsibility of discussing and directing questions about the progress of the activities, the verification process, the updating of the project's actions, especially the new communication strategy based on annual public consultations with the communities, and the distribution of benefits and adherence to the project by the communities.

Communication with society in general: extensive communication will be carried out through social media and other virtual channels (da Biofilica and Fundação Jari) explaining the whole context of the verification process and the importance of this step and for the actors impacted by the project. In addition, communication was carried out via e-mail to a wide list of relevant governmental and non-governmental institutions.

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

For the public consultation process, the auditor's visit will be notified in advance to the stakeholders through the main channels mentioned in section 2.2.5. In order to facilitate communication between the stakeholders and the auditors, the proponents will deliver to the auditors a list with the list and contact details of the main actors that are in the zone of influence of the project or that may have an interest in it.

In this sense, during the face-to-face public consultation, which will be more detailed in section 2.2.5, all stakeholders will be informed about the audit process and site visits by the auditors. During the public consultation, the current project status and background will be explained, referring to the public consultation process and the reason why it is necessary to carry it out, as well as the explanation about the audit activities, the field visit by the auditors, and its importance for the continuity of the project. The auditors will also be informed about the possibility of communication with the stakeholders.

Communication with the communities, other stakeholders, and the auditor, as well the dissemination of information, will be facilitated through the distribution of leaflets (folders) and virtual channels such as websites and social networks.

2.2.7 Stakeholder Consultation (G3.4)

The processes related to decision-making and implementation, as well as the various activities related to the Project, are open to community participation. As already mentioned, involvement in the design, implementation, monitoring and evaluation of the Project takes place through presentation and

consultation meetings, the Technical Assistance and Rural Extension Service (TARE), Information Channels, and Feedback and Complaint Redress Procedures, and the Internal Ombudsman, in which all interested communities can participate.

During the monitoring period, communication with community members was focused on the TARE services provided by the technicians, workshops, lectures, and training sessions offered by Fundação Jari. Through these channels, community members in the Project Zone can participate through doubts, suggestions, questions and criticism of project activities.

After the public consultation of the Jari Amapá REDD+ Project in 2020, which followed the same pattern as that applied for the consultation that will be held in 2023 for REDD+ Jari Pará Project, the proponents understood the impact and effectiveness of assertive and close (face-to-face) communication with community members. From this, it was decided in late 2022, during the development of the 2023 Work Plan of the Fundação Jari, that annual consultations will be held to serve the communities in the Project Zone. The purpose of these consultations is to discuss the Fundação Jari's work results in the year, promoting a participative evaluation of deliverables and present suggestions, and raise improvement points for the Foundation's planning for the following year, ensuring the engagement of the communities in the decision-making process.

Additionally, this communication can also be carried out through Informative and Feedback Channels. The entire monitoring period was contemplated by the mechanisms already implemented by Grupo Jari, and especially by Fundação Jari, such as the "Conflict Management" and "Stakeholder Communication" procedures.

The first includes actions required in cases of complaints, dissatisfaction, disagreement, or confrontation of opinions related to land, environmental or social issues of the communities in or around the property. The second describes the communication channels used, the suggestion boxes distributed at strategic points, and "Contact Us" feedback channel, which works by e-mail, Whatsapp or telephone - virtual and voice channels - and by the comment form provided with the boxes and carried out by the professionals at Fundação Jari during the technical support processes. The description of these procedures and the evidence with follow-ups of these feedback channels during the monitoring period were provided to VBB.



Figure 6: Feedback Channel "Contact Us" among the materials provided from REDD+ Jari Pará Project.

2.2.8 Continued Consultation and Adaptive Management (G3.4)

The Technical Assistance and Rural Extension Service (TARE) is an important channel for ongoing consultation for the communities and other stakeholders directly or indirectly involved in the project. Through TARE the stakeholders had direct and permanent contact with the Fundação Jari's team, and by doing so, both of them have the opportunity of discussing the planning, strategies and propose changes and adaptations. In addition, as part of the TARE process and another important channel for ongoing consultation, more than 80 training sessions were held with producers and community associations in the project region.

In addition to these actions, the Conflict Management Procedures and Stakeholder Communication Procedures were permanent consultation tools that aimed to ensure the continuous involvement of all stakeholders and ensure a dynamic management of the project.

In addition to the continuity of the activities already carried out, the use of the Monitoring Guide will serve as a tool to stimulate and strengthen the engagement of stakeholders for the development, management, and governance of the project, as well as the resumption of the Technical Chambers in a new format, focused on the exchange between technical institutions that are partners of the project, with meetings held at the beginning of the year, presenting the planning of activities for the period and at the end of the year the results of the activities carried out will be presented (this activity will be implemented after the resolution of the legal situation of Grupo Jari, to avoid potential conflicts with the participating parties).

The dialogue and exchange with the communities will continue to take place through TARE actions and through annual public consultations where the results of the Foundation's work will be discussed, in order to evaluate the evolution of the work and its results, to capture suggestions, questions, or suggestions

for improvements as a result, making the exchange between proponent and beneficiaries more solid and guaranteeing the engagement of the communities in the decision-making process.

2.2.9 Stakeholder Consultation Channels (G3.5)

The Project's activities are designed and implemented considering the desires, characteristics, and limitations of each community as defined and verified during the exchange carried out at the Technical Assistance and Rural Extension Service (TARE) and other information channels, already explained in previous items.

As described in section 2.2.3, Public Consultations and meetings between the communities and the Project proponents have taken place. This communication and accessibility for discussion about the progress of the Project's activities between stakeholders and the proponents will occur continuously throughout the duration of the Project through various channels: visits by agricultural technicians through the Technical Assistance and Rural Extension (TARE), Information and Feedback Channels and Complaints Redress Procedures and Internal Ombudsman, Public Consultations and Technical Chambers with partner institutions.

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

The processes related to decision-making and implementation, as well as the various activities related to the Project, are open to community participation. As mentioned before, involvement in the design, implementation, monitoring and evaluation of the Project takes place through presentation and consultation meetings, the Technical Assistance and Rural Extension Service (TARE), Information and Feedback Channels, and Complaint Redress Procedures and the Internal Ombudsman, in which all interested communities can participate.

Due to historical and cultural issues, it is noted that in relation to the productive decisions of the family, women and young people have little participation. Rural technicians are always oriented to include men and women, when this is the family configuration, in all activities to increase women's participation in these decisions. As a tool to boost these participations, Fundação Jari has created specific projects for these more marginalized groups, such as, for example, for the inclusion of young people, the Pacuí Family School Project is carried out, working with technical training in farming.

The work with women occurs through the Pintainhos Project, developed to generate income and nutritional security for families and in which women take the main role in the execution of the activities. In addition to the support and assistance to cooperatives and groups organized and led by women, such as the Versatile Needles [Agulhas Versáteis], focused on the production of professional uniforms for companies sold to Grupo Jari and to other companies in the region and SEARA focused on vegetable production in the Pimental community.

2.2.11 Anti-Discrimination Assurance (G3.7)

Biofíllica Ambipar Environment follows the principles of the Grupo Ambipar's "Code of Conduct", based on the premise of respect for people, regardless of their hierarchical position, origin, color, ethnicity, culture, age, social level, physical capacity, religion, and sexual orientation, not being accepted any practice of discrimination. Some commitments are the encouragement of attitudes of respect for people, their traditions and values, as well as to guide the relationship by respecting the laws and conventions that deal with fundamental human rights.

Grupo Jari has a solid culture of Human Rights Policy and Social Responsibility, being a group that respects, protects, and supports human rights. This position is described in its internal rules, such as the "Integrated Policy of Grupo Jari" and "Code of Conduct - Principles and General Norms of Conduct".

The "Code of Conduct - General Principles and Standards of Conduct" has the purpose of guiding and directing the attitude of all employees of Grupo Jari concerning the contact with the internal and external public, and with the community. This document is based on principles protected by transparency and ethics, by local, state and federal laws, and by international treaties and conventions, such as the Universal Declaration of Human Rights, the International Labor Organization and United Nations Conventions. Several topics are covered in this document, such as ethical values and the law, conflicts of interest, human rights, the environment, workplace practices, external publics, and so on, thus addressing issues such as discrimination of any nature and moral and sexual harassment.

The commitment to the life, health, and safety of the workers is paramount, and no type of discrimination based on race, color, nationality, age, religion, sexual orientation, mental or physical disability, or moral or sexual harassment is allowed. The code also does not allow the exploitation and use of child labor, the consumption or carrying of illicit drugs or alcoholic beverages in the workplace, and the carrying of weapons of any kind on company premises.

Grupo Jari provides an internal communication channel, where complaints and manifestations about issues related to this document and to labor relations can be made. Complaints of this nature can be made through Contact Us channel or at the HR of Grupo Jari or also through the union, it is worth mentioning that no demand on this topic has been received to date. Communication with employees is done through suggestion boxes provided at strategic points in the service provider companies. The Environment Quality and Management team collects these boxes monthly, registers and analyzes them, sending the operation's managers a report containing the demands of the service providers for decision making as necessary.

2.2.12 Grievances (G3.8)

REDD+ Jari Pará Project follows the procedures established by Grupo Jari, since it is located on their property, and they are developed already based on the local context. The Group has an accessible conflict resolution procedure called the Feedback and Complaint Redress Procedure ("Conflict Resolution

Procedure"). It describes the procedures taken in the event of complaints, dissatisfaction, disagreement, and confrontation of opinions with respect to land, environmental or social issues.

Complaints are forwarded by a committee composed of representatives of the Fundação Jari and the institutional relations, infrastructure management, land management, and legal departments of Grupo Jari. The committee's mission is to seek a solution to any and all types of land, environmental and social conflicts involving the forest management units under the management of Grupo Jari. The case is analyzed by the committee, which decides on how to forward the case and define a strategy to solve it. The search for a consensus between the parties is always the main purpose. If no agreement is reached, the Committee will decide whether to make a new negotiated attempt or to resort to a judicial instance. After the implementation of the actions provided for the resolution of the issues that generated the conflict, a critical analysis is made by the committee to verify the effectiveness of the actions/measures applied to the case; when it is proven that the conflict has been mitigated, the case will be closed and filed.

Conflicts and demands from other stakeholders are handled according to the Stakeholder Communication Procedure document, created in the Grupo Jari's Quality and Environmental Management sector, and recorded on a specific form. The forms are analyzed and forwarded for appropriate action, and subsequently returned to the communities.

The feedback and complaints redress are carried out according to the Procedure for Response to Communications with Stakeholders, available at the Department of Quality and Environmental Management. Although the planned Technical Chambers were not held in the monitored period, any community or stakeholder can submit comments, suggestions, complaints, through the communication channels described above and the feedback channel "Contact Us", which operates through e-mail, Whatsapp or telephone - virtual and verbal channels - and through "Stakeholder comment form", available at the office of Fundação Jari and taken to the field technicians at each TARE action - written channel.

Conflicts and demands from other stakeholders are dealt with according to the document "Communication with Stakeholders Procedure", created in the Grupo Jari's Quality Management and Environment sector, and recorded on the "Communication with the Community" form. The forms are analyzed and forwarded for appropriate action, and subsequently returned to the communities. Communication with employees takes place through suggestion boxes provided at strategic points in the service companies.

In this monitoring period, thanks to the Feedback and Complaints Receipt and Conflict Resolution Procedure, 904 demands or complaints were registered by different stakeholders, and of these 898 were addressed in some way, representing 99.3% of answered demands. Most of these demands are requests for resources or equipment by the communities, however, in many cases it is explained that the Grupo Jari is not able to provide resources to families without counterpart or in some cases assuming the role of the State. In some cases, it was possible to make donations or form partnerships with local institutions and the government to meet the demand. All the records of complaints were shared with VVB.

2.2.13 Worker Training (G3.9)

The qualification and empowerment of local actors are essential to assure quality in the implementation of the actions proposed by the Project, as well as to ensure the permanence of results and positive impacts in the long term.

It is understood that, to guarantee effectiveness in the implementation of REDD+ Project, it is essential to work on the generation of local human capital, focused mainly on the management responsible for natural resources.

The following describes the main activities that took place during the monitoring period, aiming to promote the training of local actors, income generation, and direct and indirect jobs. It is important to highlight that, among the activities listed, in addition to courses, workshops, and lectures, meeting spaces are considered as a form of capacity building for those involved, since the exchange of information in this environment generates learning for the participants.

- Strengthening family farming: During this period, Fundação Jari held 40 workshops and training sessions with producers and community associations in the project's region, covering topics such as: planting techniques and management of açaí, cassava, banana, cocoa; processing techniques, food hygiene; fish farming courses, poultry farming; hydroponics, among others. These training courses were divided into 16 courses focused on sustainable management and extractivism and good processing practices; 23 meetings on various topics: rural credit, public policies, crop plans, integrated production. These meetings were not only a space for discussion, but also for the presentation of terms, concepts, guidelines, and an important vehicle to clear up doubts among community members, and for this reason, they are considered forms of training; and 01 exchange between communities, enabling the exchange of experiences among stakeholders, resulting in a total of 661 participations.

- Improving forest monitoring techniques: Training for two technicians was provided at Fundação Jari, other teams at Grupo Jari and Biofílica can access the satellite images Web SSSCON platform. These training improve the remote monitoring of the occurrence of deforestation and land invasions and of small farmers assisted by the Foundation, in addition to supporting the planning of field actions.

- Strengthening the Fundação Jari: Effective hiring was hampered in the monitored period due to financial difficulties of the Grupo Jari. In order not to generate major impacts on the Project's activities, Specialized Consultants were contracted for the Constitution, fiscal tax regularization, and Orientation of Organizations for the Defense and Guarantee of Rights, and for Technical Assistance and Rural Extension, in the development of technology and the strengthening of Public Policies, acting in the Administrative and Accounting area; Consultants for Advising in the regularization and formalization of organizations, associations, cooperatives and Social Projects, focused on working with civil society organizations that develop activities with children and adolescents and enterprises for the promotion of community-based and productive businesses that generate income for local communities; Specialized Consulting to develop the fishing chain in the region for small fish farmers and a veterinarian who provides clinical assistance, examinations and diagnoses to small animal producers that are assisted by the Foundation; Environmental

Projects (focused on environmental education actions), Technology (development of the application for registering the actions of TARE, Figure 7); Development of Public Policies for the Food Purchase Program (PNAE) with the municipality and Georeferencing for the issuance of the Rural Environmental Registry - CAR, for producers advised by the Foundation.

These consultancies allowed the exchange and renewal of the team's knowledge and innovation in the provision of services to communities with specific demands, saving time and resources.

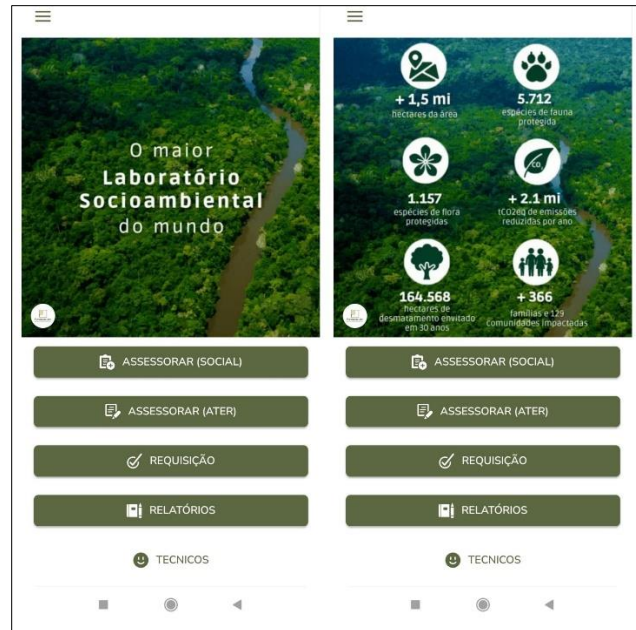


Figure 7: Home screen of the application developed for cell phones to register the TARE services.

In 2021, Fundação Jari received a training for VCS and CCB Certification, presented by Biofílica Ambipar Environment, which provided the Fundação's technicians with a broader training on the criteria for continuing to guarantee a good execution of the REDD+ Project.

Besides this, the training of the Monitoring Guide was also carried out, with the participation of about 20 people, divided among the employees of Fundação Jari and those responsible for the other sectors of the Grupo Jari (Asset Security, Quality, Certification and Environment, Nursery and Geoprocessing), of the company Agregue, responsible for low impact forest management in Amapá, and Biofílica Ambipar. The use of this tool will be essential to implement, monitor, control and constantly update the Project's good practices.

- Encouraging the participation of youth, women, and marginalized people: Activities are open to the participation of all residents of the project's working communities. The participation of women, youth and marginalized people is encouraged by the technicians of the Foundation, as well as the allocation of part of the resources of the Socio-environmental Agreement to include these less favored groups (inclusion of gender, youth, and vulnerable populations).

Cooperativa Versatile Needles [Agulhas Versáteis], is an environment of cooperation among women entrepreneurs from the Vila Planalto community, who work in the field of making and selling clothing and accessories, which is assisted by the initiative Entrepreneur Station [Estação Empreender] by Fundação Jari, the counseling aims to transform its economic results into income and improved quality of life. The Cooperative provides uniforms (individual protection equipment - IPE), for Grupo Jari employees and more 10 third party service provider companies in the Vale do Jari. In 2021, 03 courses were offered, one of which was a training course on how to make masks, an action carried out to support the fight against covid-19, with 195 participants.



Figure 8: Cooperative members at Versatile Needles [Agulhas Versáteis].

Women are also protagonists in the Pintainhos Project, developed for income generation and nutritional security of the families, in which they assume the main role in the execution of the activities.

The incentive to the young people of the communities is carried out through the Pacuí Family School Project, offering young people technical training in Agriculture and Livestock. It is also worth mentioning that in a partnership with SENAI, a program called Apprentice Generation [Geração Aprendiz] is developed, which annually assists 120 young people aged 14 to 24, offering professional training courses in several areas.

- Support to the formation and structuring of community associations and cooperatives: Through the Entrepreneur Station [Estação Empreender] project, the Fundação Jari encourages social entrepreneurship through advising enterprises that are linked to agroforestry value chains. It assists planning, production and marketing, enabling agro-extractivists and small entrepreneurs to gain access to knowledge and tools adapted to management and marketing practices on their properties, learning good sustainable management practices through incentives, technological innovation and adding value to regional products, prioritizing agro-forestry crops and traditional production systems to supplement food and nutritional security of families and to be ensured in formal and institutional markets.

In the monitored period 06 associations/cooperatives were assisted: Versatile Needles [Aguilhas Versáteis], COOPMAR, COPNHARIM, CYPOS, SEARA, Açaí Harvesters, two of which are community-based (SEARA and COOPMAR, from the Pimental community, as groups of cooperative producers). And helped in the regularization process of 04 associations/ cooperatives in Pará: APROSAN - Association of Agro-extractive Producers and Artisanal Fishermen of the Santa Luzia do Taiassuy community; APRAFA - Association of Rural Producers and Family Farmers, ATEAPA - Association of Extractive Workers of Pará and Amapá, and COOPABAN - Cooperative of Agro-extractive Producers and Producers of the Lower Amazon.

- Strengthening of associativism and cooperativism in the communities: In addition to supporting the formation and structuring of community associations and cooperatives, during the monitored period the Project offered training that allowed the communities the strengthening of Associativism and Cooperativism in the Communities. Forty-two training courses were held, with 679 participants, for training the community leaders, to raise awareness about the importance of the role of social organizations in community development, and to identify the main demands of the communities. These training were divided into 13 courses held by the Versatile Needles [Aguilhas Versáteis] Cooperative to make masks to fight the covid-19 pandemic; 03 courses held by the Versatile Needles [Aguilhas Versáteis] Cooperative on quality control of uniforms; 02 workshops on rules for community use; 01 lecture on cooperativism; and 23 meetings and presentations with various objectives: presentation of results, election of directors, meetings with groups and leaders.

2.2.14 Community Employment Opportunities (G3.10)

Employment opportunities offered by Grupo Jari are equal to the surrounding communities, including management positions, if the job requirements are met. All the job positions generated locally by the Project follow the parameters and guidelines of the "Recruitment and Selection System" procedure owned by the Grupo Jari, whose main purpose is to establish criteria for recruitment and selection, allowing transparency and effectiveness for all those involved.

No criteria of race, gender, sexual orientation, color, religion, age, ethnic origin, physical or mental disability or social class are adopted. All stages of the selection process, as well as hiring the professional, are based on criteria established in the description of positions offered and minimum qualification is desirable. It is worth mentioning that the project proponents already have teams composed mainly of people from the Vale do Jari, this for both direct employees of Grupo Jari, as well as for hired consultants, which highlights that the project will only reinforce the actions already taken in this regard.

Therefore, every selection process carried out has as standard to start with the internal recruitment program, which searches for suitable candidates for open positions among already hired employees. If the vacancy does not fill internally, the recruitment and selection is returned to the external process, where the selection processes are developed, applying the necessary and appropriate evaluation tools for each vacancy.

In addition to these processes, the proponents have a culture that aims to standardize and balance the selection of employees, including young people, new employees, and former employees who will take on new positions. Particularly noteworthy are the internship procedure for professional training for teenagers and young adults, designed to provide them with hands-on experience in training and technical, cultural, scientific, and interpersonal improvement, complementing their learning, and the Professional Training and Development procedure that guides the identification and management of internal and external training needs and the development of Grupo Jari employees.

The selection process is conducted by the human resources department, where candidates undergo specific assessments of the job in question, and the results obtained at these stages will be forwarded to the sectors responsible for the hiring request and the final selection of the candidates identified as suitable to fill the vacancy will be conducted.

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

It is assumed that all employees at Grupo Jari, Biofíllica Ambipar Environment, and service companies are legally contracted in compliance with the Brazilian labor legislation. In addition, international agreements ratified by Brazil and issues related to worker well-being are observed.

After being hired and before starting the worker's activities, there is training and qualification on technical procedures and promotion of empowerment regarding their rights and applicable laws. In addition, employees are instructed to join the institution responsible for defending their rights, the unions respective to their area of work.

The relevant laws and regulations that protect workers' rights in Brazil are listed below, as well as international agreements ratified by Brazil on labor issues.

Federal Law and Regulations

- Decree-Law nº 5,452, dated May 1, 1943: Approves the Consolidation of Labor Laws.
- Law No. 6514, dated December 22, 1977: Amendments to Chapter V of Title II of the Consolidation of Labor Laws, on occupational health and safety and other measures.
- Law No. 13467, dated July 13, 2017: Amends the Consolidation of Labor Laws (CLT), approved by Decree-Law 5,452, dated May 1, 1943, and Laws 6,019, dated January 3, 1974, 8,036, May 11, 1990, and 8,212, July 24, 1991, in order to adapt the legislation to the new labor relations.

International agreements ratified by Brazil

- Convention of the International Labor Organization No. 29 of 1930, ratified by Brazil on 04/25/1957: Provides for the abolition of forced labor.
- International Labor Organization Convention No. 87 of 1940: Provides on union freedom.
- Convention of the International Labor Organization No. 97 of 1949, ratified by Brazil on 18/06/1965: Provides on migrating workers,
- Convention of the International Labor Organization No. 98 of 1949, ratified by Brazil on 11/18/1952: Provides for the right to unionize and collective bargaining.

- Convention of the International Labor Organization No. 100 of 1951, ratified by Brazil on 04/25/1957: Provides for equal pay for men and women.
- Convention of the International Labor Organization No. 105, ratified by Brazil on 06/18/1965: Provides for the abolition of forced labor.
- Convention of the International Labor Organization No. 111 of 1958, ratified by Brazil on 03/01/1965: Provides for discrimination in employment and occupation.
- Convention of the International Labor Organization No. 131 of 1970, ratified by Brazil on 05/04/1983: Provides for the setting of minimum wages, especially in developing countries.
- Convention of the International Labor Organization No. 138 of 1973, ratified by Brazil on 06/28/2001: Provides for the minimum age for admission.
- Convention of the International Labor Organization No. 142 of 1975, ratified by Brazil on 11/24/1981: Provides for the development of human resources.
- International Labor Organization Convention No. 143 of 1975: It addresses abusive immigration and the promotion of equal opportunities for migrant workers.
- Convention of the International Labor Organization No. 155 of 1981, ratified by Brazil on 05/18/1992: Provides for the safety and health of workers.
- Convention of the International Labor Organization No. 169 of 1989, ratified by Brazil on 07/25/2002: Provides for indigenous and tribal rights.
- Convention of the International Labor Organization No. 182, ratified by Brazil on 02/02/2000: Provides for the prohibition of the worst forms of child labor and immediate actions for its elimination.

2.2.16 Occupational Safety Assessment (G3.12)

An important component of the Project involves strict and effective care for the safety of workers, considering the internal regulations and official norms established by the federal and state governments.

Biofíllica Ambipar Environment, acts in compliance with the Policies of the Grupo Ambipar Integrated Management System, declaring its commitment to the continuous improvement of its Quality, Occupational Safety, and Environmental indicators.

Through the *Environmental Management System Policy* and the *Response Management System Policy*, the company is committed to promoting the qualification of its employees through training and professional qualification, to meet the legal, contractual, and other applicable requirements of quality, environment, occupational safety and health, to promote health and safety by preventing injuries, accidents and occupational damage.

Grupo Jari has a complex quality management system, *Grupo Jari Integrated Policy*, in which all activities performed by the company are described through operating procedures, work instructions, and environmental procedures. All procedures are reviewed and updated annually.

The Group also has an Internal Commission for Accident Prevention - CIPA, whose purpose is the prevention of accidents and work-related illnesses, to make work permanently compatible with the preservation of life and the promotion of workers' health.

There is a system of training and qualification aimed at preparing the company's own employees and third parties that work in the activities of sustainable forest management of eucalyptus. In the year 2021 alone and the first half of 2022, 30 training courses and lectures were held, with more than 670 participants, with various themes, from training for the execution of activities safely to the prevention of employee health.

With a purpose to promote health and safety, the training actions Daily Safety Dialogues - DDS are held, which allow the work to be done with more quality, improving the return for the company and the positive feedback for the employees. The DDS favor the engagement of the employees in the continuous improvement policies, provide the employees' well-being, and add professional knowledge, qualifying and adding value to the workforce. As a result, there is an increase in the motivation of employees to perform the work, improvement in the quality of products and services and in productivity.

In addition to the training, all personnel involved receive mandatory use of individual protection equipment (helmets, boots, leggings, ear protectors, gloves, among others) and collective (tents, when necessary).

The company also has a third-party integration process underpinned by the Safety Integration Process, which lays out the standards and regulations for the subsequent development of the activities of the employees of the Grupo Jari service providers.

To welcome its workers, the Grupo Jari also provides a corporate number of the 24-hour call center in the Occupational Medicine sector, aiming at an efficient listening, care, and respect with its collaborators, who through this channel can also schedule periodical exams, return visits, among others.

The Group also has a Medical Control Program of Occupational Health (PCMSO), which aims to perform a continuous and systematic action on the determining and conditioning factors of health problems related to work processes and environments, in their technological, social, organizational, and epidemiological aspects, with the purpose of planning, executing, and evaluating interventions on these aspects, in order to eliminate or control them, thus being able to protect, prevent, and promote the worker's health. Therefore, by creating and maintaining a proper preventive culture for the company's social responsibility, at all hierarchical levels, acting to promote the health of all workers, in the prevention, tracking, and early diagnosis of work-related health problems, to reduce the rate of work-related accidents and diseases.

Through internal rules and improvements in occupational health and safety practices, all positions and situations that could pose some types of occupational risk were deeply avoided and mitigated. Other relevant tools are reported in the following documents:

- Covid-19 Protocol
- Description of PPEs by Function
- Action Plan

- Environmental Risk Prevention Program
- Occupational Health and Safety Newsletters – ISST.

2.3 Management Capacity

2.3.1 Required Technical Skills (G4.2)

The main technical skills needed for the implementation REDD+ Jari Pará Project are knowledge about the development and management of forest conservation projects in the Amazon biome, experience in implementing, developing, and assisting programs for communities, implementing effective land security and asset surveillance. All proponents involved in the project have the required technical skills for the successful completion of REDD+ Jari Pará Project.

Based on principles from Grupo Ambipar Sustainability Policy, and committed to compliance with environmental legislation, with the circular economy by promoting research and development of new technologies and business models, with a strategic vision of risks and opportunities due to climate change, Biofílica Ambipar Environment is a Brazilian company that promotes the management of forest areas in the Amazon biome.

The company has a specialized team and is a reference in the development of forest conservation projects, ensuring the quality and effectiveness of REDD+ activities being developed, and aims to reduce deforestation and carbon emissions into the atmosphere, conserve biodiversity and water resources, and promote the inclusion and social development of communities living in the Amazon biome through the sale of credits for environmental services, the development and financing of scientific research activities, and the development of sustainable business chains, making environmental conservation an economically interesting activity for forest owners, communities, and investors.

Fundação Jari is Grupo Jari's social institution which, together with a vast network of partners, develops programs and projects in the areas of education, health, human rights, environment, culture, employment, and income generation. Since 1994, it has reached over 6.8 million assistance services in Brazil, counting the units outside Vale do Jari that already existed, and has a track-record in the region, as well as experience in designing and implementing socio-economic development activities.

Fundação Jari has a great contribution in the execution and management of social activities, guaranteeing the inclusion of the communities in the Project's activities and in the Technical Assistance and Rural Extension activities (TARE). All the work of the Foundation has already been recognized by several awards throughout its existence, having great commitment and performance with the SELO [Seal] UNICEF, and holding the CEBAS certificate (Certification of Charitable Entities of Social Assistance in the Education Area) granted by the Federal Government, through the Ministries of Education, of Social and Agrarian Development, and of Health, to private non-profit legal entities recognized as charitable entities of social assistance that provide services in the areas of education, social assistance, or health.

Jari Celulose S.A. is a Grupo Jari company with two divisions: Pulp Division, which produces bleached eucalyptus pulp, and the second is the Paper and Packaging Division, serving almost all economic segments. In the project, it acts as the owner of the land and is responsible for the land security and patrimonial vigilance, because of its vast experience in the forestry market and in several certifications, the company has a range of procedures that encompass good practices for all its activities from the field operation to the mill and the relationship with stakeholders.

Jari Celulose has a land inspection team that monitors its properties, to restrict speculation and land invasion and, in the occurrence of an invasion, makes an official report to the police informing about the invasion of private property, which is sent to the company's legal department for the applicable measures and reports environmental crimes to the Brazilian Institute for the Environment and Renewable Natural Resources (IBAMA).

2.3.2 Management Team Experience (G4.2)

Below is the experience of the project management team.

Biofílica Ambipar Environmental Investments		
Name	Position	Experience
Claúdio Pádua	Scientific Director	He holds a degree in Business Administration and Biology, a Master's in Latin American Studies and a PhD in Ecology from the University of Florida in Gainesville (USA). Retired professor at the Univerdade de Brasília [University of Brasília], Pádua is currently dean of the Superior School of Conservation and Sustainability and vice-president of the Institute of Ecological Research (IPÊ). He is also Senior Associate Researcher at the Center for Environment and Conservation Studies at Columbia University (USA) and Director of International Conservation at the Wildlife Trust Alliance, as well as a consultant for the Brazilian Biodiversity Fund (FUNBIO) and WWF Brazil. Pádua is the Brazil's representative before the International Consulting Group (ICG) of Pilot Program G7. In 2003, together with his wife, Suzana Pádua, he was named "Herói do Planeta" [Hero of the Planet] by Time magazine for his activities in favor of biodiversity conservation. From 1997 to 2007, he won six conservation awards, three national and three international. Pádua has published two books and more than 30 articles in national and international scientific journals.

		Since 2008 he has directed Biofílica's involvement and scientific production as Scientific Director and advisor.
Plínio Ribeiro	Chief Executive Officer (CEO)	Graduated in Business Administration from the Instituto de Ensino e Pesquisa - INSPER and a master's degree in Public Administration and Environment from Columbia University and the Earth Institute (USA). He has attended several conservation projects on the lower Negro River, through the Institute of Ecological Research - IPÊ since 2005 and was one of the producers of the documentary "O retorno à Amazônia" [Back to Amazon], by Jean Michel Cousteau. He has been working at Biofílica since 2008, where he has led Projects, Operations and Business Management. Currently, he is Executive Director and shareholder of the company.
Soraya Pires	Operations Director	Agronomist Engineer from the Universidade de São Paulo (USP/ESALQ) and holds an MBA in Commercial Management from Fundação Getúlio Vargas. She has extensive experience in agribusiness, biofuels, renewable energy, and sustainability. She has worked in mergers and acquisitions, project development for resources optimization, management of agribusiness operations and financial modeling in sugarcane mills. She is active in new business development, project management and legal reserve compensation.
Caio Gallego	Intelligence Manager	Forestry Engineer graduated from the Universidade de São Paulo (USP/ESALQ). Specialist in geoprocessing and remote sensing focused on the area of environmental conservation, mapping, and analysis of changes in land use. He has knowledge focused on Sustainable Forest Management, environmental modeling, and the use of alternative GIS for forestry and agribusiness. He has advanced knowledge in the use of GIS software and analysis of changes in land use and land cover such as ArcGIS, QuantumGIS and DinâmicaEGO.
Paula Conde	Administrative Manager	Graduated in Business Administration from PUC of São Luís and a postgraduate degree in Accounting and Financial Administration from FAAP. She has extensive experience, most of it in one of the largest media and education groups in Latin America - Editora Abril, where she worked with Financial Control and Reporting, Treasury, Accounting and Financial

		Reconciliation, Accounts Payable and Receivable and Royalties. At Biofílica Ambipar Environment, she is responsible for administrative and financial activities, logistical support for the team and projects.
Laion Pazian	Sales Manager	Graduated in Economy from the Universidade de São Paulo (USP/ESALQ) and an MBA in Commercial Management from Fundação Getúlio Vargas. He manages the carbon credits commercial team, the main accounts, and the commercial policy and strategy of Biofílica Ambipar. In addition, he monitors and directs the analysis of carbon market intelligence, being responsible for the area's pricing and planning policy.
Ricardo Cordeiro	Communication Coordinator	Advertising executive with over 14 years of experience in art direction (On and Offline), graduated in digital marketing by Anhanguera, works in web project management and web design, digital marketing strategies, SEO, Google Ads, Social Ads, with passage by digital agencies, trade and live marketing. During his career he has coordinated teams in projects for major players such as: Açúcar União, Senac, Camil, Cosan, Hospital Oswaldo Cruz, Gertec, Avis, Abiquim, EBBA (Maguary e DaFruta), VTEX, Mercado Bitcoin. At Biofílica Ambipar, he leads the communication team with a focus on performance, branding, content marketing and endomarketing.
Renan Martins	Communication Analyst	Designer graduated from FAM with extensive experience in creation and advertising market, he has worked in the development of campaigns for brands such as Bitcoin Market, Lycée Pasteur and in the creation of online and offline pieces for Hospital Oswaldo Cruz, Gertec, Sociparques e Dreamworks (Universal). At Biofílica Ambipar works in the creative part with the marketing area in campaigns and institutional pieces.
Luana Cordeiro	Project Coordinator	Forest engineer graduated from Universidade de São Paulo, post-graduate student in Project Management (PMI) from SENAC, and environmental technician graduated from the State Technical School of São Paulo. She has been working for more than 4 years at Biofílica Ambipar where he acquired

		experience in the development, monitoring, and management of projects, preparing documentation that is audited, budget management, co-management with partners ranging from the private initiative to the third sector, conducting the hiring and management of suppliers, and participating in processes of consolidation of methodological intelligence and carbon standards.
Liliane Lobo	Project Analyst	Biologist, master's degree in planning and use of renewable resources from UFSCar, postgraduate in Environment and Sustainability from FGV, and certified in social project management. She has worked in sustainable development projects in the scope of the Secretariat of Environment of the State of São Paulo, with rural, indigenous, and “quilombola” communities, and in the implementation of payment for environmental services projects. Broad experience with environmental public policies and experience in due diligence and Environmental Licensing of enterprises. Currently integrates Biofíllica's operational team as Project Analyst.
Laura Rossini	Project Analyst	Environmental Manager, graduated from USP (ESALQ Campus). She has been working directly with activities related to implementation, maintenance and monitoring of ecological restoration projects, organic waste management and scientific research with native tree species. Previously worked in the commercial area of Biofíllica, as Commercial Analyst of forest carbon credits, and currently integrates the operational team as Project Analyst.
Marcela Gomes	Project Analyst	Forest Engineer, MSc student in Forest Sciences at UFV, Project Analyst of Cycle 2 funding from EMBRAPAII (Brazilian Company for Research and Industrial Innovation) in the Forest Fibers Unit. Developed research in the forest bioenergy sector and monitoring of charcoal production. She has developed research in the areas related to forestry, harvesting, production and forest management and participated in the data survey for the GHG emissions inventory at the multinational company Saint-Gobain, in the Bioenergy Unit. Currently integrates Biofíllica's operational team as Project Analyst.

Fabio Souza	Geoprocessing Coordinator	Geographer, master in use and conservation of natural resources, specialized in climate analysis, technologist in big data and analytical intelligence, worked in environmental diagnostics, development of geotechnology services and geoprocessing team management. Specialist in PostGIS database modeling, webgis platform development, business intelligence and geoprocessing process automation. Currently integrates the Biofílica operational team as geoprocessing coordinator.
Franciane Almeida	Geoprocessing Analyst	Forestry Engineer graduated from the Universidade Federal de Lavras (UFLA). She has experience in geoprocessing and remote sensing applied to the areas of forestry planning, forestry and harvesting, recovery of degraded areas, and land tenure regularization.
Fundação Jari		
Jorge Rafael de Almeida	General Coordinator (Social Operations)	Graduated in Pedagogy from the Universidade Federal do Pará [Federal University of Pará] and started his post-graduation in Cooperative Production Management at the Universidade Federal Rural de Pernambuco [Federal Rural University of Pernambuco]. Works at Grupo Jari since 2007 as Social Operations Coordinator for Fundação Jari, former Fundação Orsa, at Jari unit, leading the social responsibility program management at Grupo Jari in Jari region.
Sônia Varela	Monitoring and Community Development	Environmental Manager with a post-graduate degree in Integrated Environmental Systems Management. She has been part of the TARE team at the Fundação Jari for 12 years and is currently responsible for maintaining Environmental Certifications and Monitoring and Controlling Projects developed by Fundação Jari in the Vale do Jari.
Luan Nascimento da Silva	Administrative Analyst	Studying 8th and final semester in Business Administration at the International Centro Universitário UNINTER, he started his professional career as a Young Apprentice in the Controller department in Grupo Jari Celulose in 2015, currently working as an Administrative Analyst at the Fundação Jari in a CLT regime, performing activities in administrative support and control of information from the area relevant to the Organization.

Jari Celulose		
Ricardo Aragones	CEO	Professional with over 20 years in the financial and capital markets, with long experience in the corporate commercial area, responsible for managing client portfolios for structured and credit operations. Actively participated in the structuring and distribution of more than R\$ 1 billion in credit funds and multi-market. Deep knowledge in sectors such as Construction, O&G and Agribusiness. In the last 7 years he was responsible for the restructuring, financial and operational, of companies in Distress.
Hamilton C. Barbosa	Chief Financial Officer (CFO)	20 years' experience as Senior Director (Accounting, Finance, Legal, IT, Project Management, Human Resources) - automotive, construction, telecommunications, real estate, services, concessions, agribusiness; Effective participation in M&A (especially Real Estate, Renewable Energy, Road Concessions, Construction and Infrastructure), due diligence, corporate governance and risk assessment; Over R\$ 800 million in debt, equity and quasi-equity structured and raised in the last 6 years. High-level relations with top management of national and international banks; company diagnostics (business processes, risk management, business management reporting, cost structure analysis, cash flow and variance analysis, working capital monitoring, people, and leadership).
Vinicius Montagnana Garcia	Advisor	With a bachelor's degree in business administration from FGV-SP, an MBA from INSPER-SP and post-graduate studies in economics from FGV-SP, he has held various managerial positions at Grupo Jari: planning, corporate governance, market intelligence, planning and control.
João Alberto da Cunha Marins	Legal Director	Lawyer, with an MBA in Tax Law from PUC-RJ and an MBA in Corporate Law from FVG-SP, he has over 15 years of experience working as a tax consultant and in-house counsel for companies in Brazil.
Augusto Praxedes Neto	Environment and Institutional Relations Manager	He has a degree in Business Administration and a Specialization in Auditing and Environmental Management. He has 30 years of experience in agro-forestry activities in the Amazon, specifically in Vale do Jari. He is in charge for

		Institutional and Government Relations at Grupo Jari since the Group took the controlling interest in Jari Celulose, in 2000. He is responsible for managing ISO 9001, ISO 14001, and FSC certifications for forestry activities, in addition to environmental licensing and monitoring. For two years he has been a member of the economic chamber of FSC Brasil, and Chairman of Association of Certified Amazon Producers and Grupo Jari's representative at Fórum Amazônia Sustentável (FAS) [Sustainable Amazon Forum].
Paulo Roberto da Silva	Infrastructure and Asset Security Manager	Post-graduate in Corporate Security Management from Faculdade [College] Gama Filho and MBA in Research, Auditing and Environmental Management from Faculdade Oswaldo Cruz. He works at Jari Celulose, Papel e Embalagens since 1984, where he leads the Corporate Security and Land Tenure area. Currently, he is responsible for forest control, land tenure, and land security at Grupo Jari in the region of Jari, being responsible for the areas of industrial operations, natural forests, and plantations in a total of 1,300,000 hectares in the states of Pará and Amapá.
Lídia Cecília Herrera da Silva	Corporate Legal	She is graduated in Law from Faculdades Integradas Vianna Júnior (FIVJ) - Juiz de Fora - MG. Post-graduate degree in Civil Law and Civil Procedure from Complexo Damásio de Jesus. Post-graduation in Public Law from Faculdade Arnaldo Janssen. Duly enrolled as attorney with OAB/MG no. 163.586.
Katiuschia Barros Martins Rodrigues	Legal Coordinator	Graduated in Law since 2004 from the Universidade da Amazônia, she has been working in the area of individual and collective labor law for over 17 years. She has a post-graduate degree in Material and Procedural Labor Law and is currently taking a Specialization course in Personnel Department Management and Labor Legislation. She took the coordination the local Legal Department at Jari Celulose in 2014 and since then has been acting in the most diverse areas, such as land and environmental law, besides acting in the due diligence of several projects developed by the company.
Edson Lanes	Land Management and Property Security	Graduated in Business Administration. He works for 19 years at Grupo Jari where he worked in the Institutional Relations and Sustainability area as Institutional Relations and

		Community Analyst and Lead Auditor for ISO 9001, ISO 14001, and FSC certifications. He is currently working in the Land Management area as Supervisor of Property and Land Security.
Lindomar Francisco Cunha Miranda	Forest Planning Coordinator	Cartographic Engineer from UFPR - Universidade Federal do Paraná and Specialist in Geoprocessing and Georeferencing of Rural Properties. With over 23 years of experience in surveying, and expertise in geoprocessing, management of geoprocessing, surveying, and forestry teams, and aerophotogrammetric surveys with drone. Technical Supervisor at Jari Celulose with CREA, SEMAS, INCRA, ITERPA e SIGEF.
Francisco de Assis da Silva Ferreira	Senior Geoprocessing Analyst	Forestry Technician, responsible for maintaining, editing and consolidating the forest database and geoprocessing system at Jari Celulose. With over 30 years of experience in planning and carrying out topographic and cartographic technical services for forestry and forest harvesting, and experience in geoprocessing and obtaining and processing cartographic data

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

The purpose of the partner institutions is to provide support in carrying out the Project's activities, mainly focused on rural extension support and improving the well-being of the communities, as well as monitoring long-term biodiversity and possible environmental impacts.

In this sense, the partnerships are responsible for conducting studies, supporting technical assistance actions, and providing training for community members, with the aim of encouraging participation and improving their knowledge on various topics. It is worth mentioning that some of the partner institutions in this project are in the state of Amapá, both REDD+ Jari Pará and Amapá Projects, and the geographical location of the Jari property, which is on the border between the states. A description of these partnerships and their responsibilities is presented below.

Socio-Environmental Harmony: In the Project, the company carried out the first social consultation for the socio-economic and environmental diagnosis and socio-economic module.

Federal Institute of Education, Science and Technology of Amapá – IFAP: IFAP is an autonomous body linked to the Ministry of Education, equal to the federal universities, with the goal of contributing to the development of the State of Amapá and promotes scientific and technological research, taking into account the advancement of technology and the needs of society. In the Project scope,

Teaching, Research and Extension activities in the region of Vale do Jari are carried out jointly with Fundação Jari, focused on biodiversity monitoring activities of the projects, as well as those associated with the Xylotheque and Museum.

Di Ciero Intelligence in Sustainability: Di Ciero is a private company specialized in proposing solutions for sustainability issues. In the project, it carried out technical studies to evaluate the impacts of social projects, perception of social impacts, historical-cultural, socioeconomic-environmental characterization of the communities, socioeconomic-environmental diagnosis of the municipalities, and mapping of the rural productive chains.

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

A Biofíllica Ambipar Environmental Investments S.A. (“Company”), former Biofíllica Investimentos Ambientais S.A., is a privately held corporation, domiciled at Rua Vieira de Moraes, 420 Conjuntos 43 and 44 – Neighborhood – Campo Belo – São Paulo - SP, with the predominant activity of developing and commercializing environmental service credits.

The Company manages and conserves forests in the Amazon through the commercialization of environmental services, investments in research and the socioeconomic development of the people and communities that inhabit the areas under management. With the purpose to contribute to the creation and development of a solid and reliable market for environmental credits, the Company invests in an innovative business model that allows for the reduction of deforestation, the valuation of standing forests and the environmental services they provide, the protection of biodiversity and the reduction of carbon emissions, making environmental conservation an economically interesting activity for forest owners, communities, governments and investors.

Currently Biofíllica has several active projects and several opportunities in its pipeline focused on generating REDD+ (Reducing Emissions from Deforestation and Forest Degradation) forest carbon credits. In addition, the company is also beginning to act on other fronts NBS (Nature Based Solutions): AR - Afforestation/Reforestation, ALM - Agricultural Land Management, and wetlands carbon (Blue Carbon).

In this context of accelerated expansion, Biofíllica also signed the partnership with Ambipar, with a massive investment plan in the development of carbon projects and programs *Nature Based Solutions* (NBS), in addition to the investment in the development of Biofíllica Platform, that will use state-of-the-art technology to originate credits in agriculture and trading environmental services.

Grupo Jari has been expanding its area of operation since its creation in 1981, having followed a path of expansion and integration in the pulp, corrugated cardboard, paper and forestry markets.

In 2012, the Group carried out a strategic reorientation, fully focusing its activities in the Amazon region, and, in 2016, it finalized the conversion of the paper pulp mill for the production of Dissolving Wood Pulp (DWP); a niche commodity, in which the Jari plant has a proper scale and the product has a market price significantly higher than paper pulp.

Documents proving the financial health of both institutions are classified as commercially sensitive information and were shared with the audit team on a confidential basis.

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

Biofíllica Ambipar Environment, maintains a legal team that is responsible for implementing and monitoring the good practices established in the "Code of Conduct and Compliance" and the "Anti-Corruption and Anti-Money Laundering Policy"³⁹ of Grupo Ambipar, reinforcing its position against the practice of corrupt acts and/or conducts that aim at personal benefit to the detriment of the company, society or the Government, strictly observing the Anticorruption Law, and following the main guidelines and positioning of Ambipar on preventing money laundering, terrorism financing, and all forms of corrupt conduct, such as bribery, embezzlement, and the granting of undue advantages, as well as the concealment of these acts and the hindering of investigation and inspection activities.

It is also highlighted that Biofíllica Ambipar Environment supports annual financial audit processes ensuring that its resources are allocated responsibly and free of corruption.

As Biofíllica Ambipar Environment, Grupo Jari does not tolerate any type of corruption such as kickbacks, bribes, nepotism, favors, fraud, favoritism, extortion, money laundering, among others, and has a "Human Rights and Social Responsibility Policy: passive and active corruption inside and outside the company". If situations like these occur, all the information will be verified and those responsible will be taken to court and removed from the company. The Group also makes available a communication channel, already mentioned above, which among other functions, facilitates accusations of corruption. Reports and complaints can be made anonymously through two telephone numbers and suggestion boxes.

2.3.6 Commercially Sensitive Information (Rules 3.5.13 – 3.5.14)

Some information required by the certification standards are considered confidential or commercially sensitive and cannot be publicly disclosed by the Project Proponents. These informations were fully provided to the VVB during the validation process attached to this Monitoring Document, but was not included in the public version. Below is the list of information that was only available to VVB:

- Financial Performance Spreadsheet and other related documents;
- Agreements and contracts signed between the parties involved;
- Land Documents and Legal Situation;
- Minutes of meetings with Biofíllica Ambipar, Grupo Jari, and Fundação Jari;
- Financial Statements of Grupo Jari (Jari Celulose and Fundação Jari);
- Financial Statements of Biofíllica Ambipar Environment;

³⁹

Bylaws and Policies of Grupo Ambipar. Available on: <https://ri.ambipar.com/governanca/atas-estatutos-e-politicas/>

- Operating and Environmental Procedures of Grupo Jari used in the Project during the monitored period.

2.4 Legal Status and Property Rights

2.4.1 Recognition of Property Rights (G5.1)

REDD+ Jari Pará Project recognizes and respects all property rights by complying with significant statutory and regular requirements, and by having the required approvals from the appropriate state, local, and indigenous authorities. The Project recognizes and supports any rights to lands, territories and resources, including the statutory and traditional rights of indigenous peoples, communities and other actors.

Jari Celulose, Papel e Embalagens S/A, a company controlled by Grupo Jari, is the legitimate owner of the property Gleba Jari I, where the REDD+ Jari Pará Project is located. The properties of Jari Celulose located in the States of Pará and Amapá were acquired by means of public deeds of purchase and sale, as can be seen in the deeds themselves (1948/1949), as well as in the Evolution of Corporate Changes - Jari Celulose S / A - Land Title" and Notifications attached to the PDD. These documents are intended to attest the process of buying and selling the properties and the location of the registry offices where the deeds to the respective properties were written, proving the legitimate ownership.

The Project activities are developed as well as the Right of Use of the Project area is respected according to the criteria of the VCS Standard v3.2 (page 17):

"1) A right of use arising or granted under statute, regulation or decree by a competent authority.

2) A right of use arising under law.

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

In Portuguese:

"1) Direito de uso resultante ou concedido ao abrigo de estatuto, regulamento ou decreto por uma autoridade competente.

2) A right of use arising under the law.

4) A right of use arising from a statutory, equity or contractual right in the land, vegetation or conservation or management process that generates GHG emissions reductions and/or removals (where such right includes the right to use such reductions or removals) and the project proponent has not been divested of such right of use)."

Gleba Jari I is composed of ninety-nine properties, of which 50 are in the project area. The land tenure of the rural properties of Jari Celulose faces an administrative blockade, provisional and

totally reversible, since these actions are a preventive measure by the Corregedoria of the State of Pará, in order to enable the regularization of public registries throughout the state.

This state strategy was based on evidence of fraud in the system, having found that in several inland municipalities there were properties registered with unreal and over-dimensioned areas. However, none of these cases concern, in any way, the properties of Jari Celulose and, due to the impossibility of performing an individualized analysis, a general (statewide) blockage was chosen for each applicant in order to make the appropriate proofs with the competent agencies. In addition, several Jari real estate records were improperly blocked by the Monte Alegre notary clerk. Since the notary office cannot act on its own initiative to correct such acts, Jari is obliged to provide administrative requalification of the registration. Even so, these actions do not prove any kind of alienation of Grupo Jari in the region, since all the certificates and records of the property are in his name.

For regularization of the enrollments, the Judicial Administrative Department of Countryside Jurisdiction (CJCI – PA) began to issue, since 2010, normative acts and currently, after several improvements, the requalification procedures are regulated by the Joint Provision CJCI-CJRMB 004/2021, which states that the requalification procedure consists in an administrative request for the restoration of blocked and canceled enrollments and registrations, and must be presented directly to the competent real estate registry unit, accompanied by pertinent documents, including the certificate of regularity of the property, the main document in the process of re-qualifying the enrollments, which attests to the regularity of the detachment of the property from the public patrimony, its boundaries and confrontations.

In view of the above, Jari Celulose has been conducting a major land title regularization process for its rural properties located in Pará State, specifically at the Pará State Land Institute ("ITERPA"), the agency responsible for issuing the aforementioned certificate. Since the end of 2021, Jari Celulose has been successful with ITERPA the issuance of Certificates of Regularity for its properties. After obtaining these documents, the company started in 2022 the conclusive stage of requalification, that is, the pre-notation of the requalification and restoration request of its real estate registrations, at the Property Registry Office of Almeirim.

The areas subject to reclassification requests filed with the Almeirim Land Registry have already had new registrations issued, based on ITERPA's Regularity Certificate, and will soon enter the final phase of the reclassification procedure, which is their unblocking, ordered by the competent Agrarian Judge.

It should be pointed out that the Conduct Adjustment Agreement signed between the Group and ITERPA (the body responsible for land title regularization in the State), mentioned in the PDD, has been terminated, but an administrative process is still underway for each tract of land, in the records of these administrative processes, ITERPA issues the certificates that allow Jari to carry out the aforementioned requalification process.

Therefore, through documentary research, it was concluded that there is no impediment, encumbrance, charge or limitation for REDD+ Jari Pará Project. Biofílica Ambipar Environment has an agreement with Jari Celulose, owner of properties, to execute the REDD+ Jari Pará Project, therefore,

Biofíllica Ambipar Environment is the sole and exclusive developer of REDD+ Jari Pará Project concerning environmental services and other related benefits.

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

The Project did not carry out any activities on private property or property belonging to indigenous and traditional communities or to the government, only on properties belonging to the Grupo Jari. The property where the Project is located has a much larger area than the area used for the Project activities and there has been no interference with neighboring properties. Prior Informed Consent (of the communities present on the property where the project is located and government representatives in all areas) has been applied since the implementation period of the REDD+ Jari Pará Project. Concerning social and biodiversity monitoring activities, no activities were undertaken without the free, prior and informed consent of the parties involved.

No project-related activities resulted in the involuntary removal or relocation of owners of property rights from their lands or territories, nor forced them to relocate activities important to their culture or livelihoods, since no party was affected by the project, no restitution or compensation of any kind was required. Grupo Jari provided support to regularize the land tenure of the communities working on the project with the designated public institutions, through the actions carried out by the Fundação Jari.

In addition, all the stakeholders that could be directly or indirectly affected in any way by REDD+ Jari Pará Project are constantly consulted, as described above about the communication and consultation channels applied by the Project. These consultations will continue to be carried out throughout the Project's life cycle. In addition, all information about the REDD+ Jari Pará Project can be acquired in virtual channels, such as the website and social networks of Biofíllica and Fundação Jari.

2.4.3 Property Rights Protection (G5.3)

The development of activities related to REDD+ Jari Pará Project has not led to the involuntary removal or relocation of any part of their lands or territories, and activities important to the culture and livelihoods of communities living within the boundaries of the Project Area have been respected and supported by the Project.

As mentioned previously, the land tenure regularization of the communities working in the Project is supported and sustained by Grupo Jari with the responsible public institutions, through the actions that were carried out by Fundação Jari.

Another measure to prevent and inhibit land invasions in the project area were the activities of monitoring the perimeter of the properties, carried out by a land surveillance team. When land invasions were identified, a police record was made, formalizing the report of invasion of private property, which was forwarded to the company's legal department for appropriate measures, and to the Brazilian Institute of the

Environment and Renewable Natural Resources (IBAMA) for investigation of environmental crimes, as appropriate, all evidence of the reports made will be provided to the VVB.

2.4.4 Identification of Illegal Activity (G5.4)

Deforestation is the main illegal activity that can negatively impact the development of REDD+ Jari Pará Project, and hunting and predatory exploitation of fauna and flora species are possible. As drawn in the PDD, this illegal deforestation is caused by landholders for the installation of subsistence agriculture ("roças", small farms) and by small farmers for small-scale agricultural crops, grazing and property boundary demarcation.

Without this project, it was estimated that 102,654 hectares of native forest would be lost in 30 years in the Project Zone, of which 18,911 hectares would be present in the monitored period. In order to reverse this scenario, during the monitored period, with the implementation of planned activities, deforestation of 4,043 hectares was identified between 2018 and 2022, a deforestation 79% lower than projected. Although the project's goal is to completely zero unplanned deforestation in the region, the complex local context in which these agents operate prevents this goal from being achieved in the short term; it is a work of continuous construction and cooperation.

During the monitoring period, these illegal activities were prevented in the region covered by the project, mainly through mitigating measures such as strengthening land inspection and surveillance, as well as encouraging the engagement of other actors and stakeholders, social inclusion and regional socioeconomic development through the generation of economic alternatives to deforestation. The mechanisms and procedures of land inspection are summarized in Table 2, the activities of a socio-economic nature are better described in section 4.

Table 2. Summary of land law enforcement mechanisms in the REDD+ Jari Pará Project area.

Surveillance in the Project area	
Purpose	Determine inspection conditions for lands owned by Jari Celulose S.A.
General conditions	<p>Patrols:</p> <ul style="list-style-type: none"> - Carry out regular patrols in order to ensure the protection of the land holdings owned by Jari; - Avoid deforestation, forest fires or other acts that harm the environment; - Prevent illegal logging and trade in timber and other products, as well as predatory hunting and fishing; - Maintain good relations with squatters and existing communities; - Promote social actions; - Provide support to the police and inspection authorities, when necessary; - The river patrol is carried out with speedboats that travel the main water basins in the region; - Road patrolling is carried out by vehicles through the main roads, side roads and contours for monitoring the forest areas and existing communities in the company's areas of operation.

	<p>Action method:</p> <ul style="list-style-type: none"> - Sending a team to the site of the occurrence to investigate the fact and apply the appropriate measures; - Reporting the legal department to take action; - Registration of incidents involving property invasions, damage to property and irregular extraction of forest products at the police station by the Property Security Coordinator; - Occurrences involving damage to the environment must be registered with the responsible bodies (IBAMA, Environmental Police, etc.) by the Property Security Coordinator; - In all situations involving land conflicts, it is necessary to avoid confrontation between the parties, respecting the laws in force in the country.
<p>Specific Conditions</p>	<ul style="list-style-type: none"> - The patrol itinerary is elaborated according to an Inspection Program; - When the land inspection detects illegal activities, the Property Security must take the appropriate measures, as well as collect the geographic coordinates to be sent to the Geoprocessing sector. <p>Forest Fire Surveillance</p> <ul style="list-style-type: none"> - During the patrols, openings that may cause fire risks to the forests are taken into consideration, and the person responsible must be warned and oriented about the risks and the necessary precautions must be taken by the forestry area. <p>HCVA - High Conservation Value Areas</p> <ul style="list-style-type: none"> - After the proven validation of an HCVA, specific precautions are taken in order to protect the identified HCVAs. <p>Ecological Corridors</p> <ul style="list-style-type: none"> - Areas of ecological importance for the passage of fauna are monitored during surveillance.
<p>Records</p>	<ul style="list-style-type: none"> - Protocol of occurrences registered with IBAMA; - Police report; - Photographic record of occurrences; - Regular inspection program; - Report of Activities of Property Security.
<p>Surveillance Intelligence Strategies</p>	<p>Planned actions for investment in intensification and intelligence in the activities of Property Security:</p> <ul style="list-style-type: none"> - Monitoring via high-resolution satellite images, with monthly issuance of deforestation alerts in risk areas, enabling the generation of monthly reports of altered areas; - Acquisition of support equipment for the patrolling team; - Additional financial support for logistics costs and vehicle maintenance.

2.4.5 Ongoing Disputes (G5.5)

In the area for the REDD+ Jari Pará Project, there are no conflicts, current or unresolved disputes over land rights, use of the property, or access to natural resources, as well as no disputes with third parties or traditional squatters revoking the right of ownership of Jari Celulose S.A., as detailed above.

Although there are no disputes in the Project area over land ownership or rights of access or use, Grupo Jari has a mechanism prepared for problem solving, present in the document "Conflict Management", in case any possible disputes over the region occur. Besides this, the Group has a cooperation dialogue with governmental agencies to support the regularization of the land situation of the communities where the Project operates, also previously mentioned.

2.4.6 National and Local Laws (G5.6)

The purpose of the REDD+ Jari Pará project is in compliance with the Federal Constitution, as well as the current laws protecting native forest and the climate change regime provided for in international regulations (UNFCCC) and the National Policy on Climate Change (Law 12,187).

Regarding REDD+ activities, the Brazilian regulations on the subject are still weak. A history of initiatives can be noted despite the construction and negotiation of this concept through agreements and meetings at the United Nations Framework Convention on Climate Change (UNFCCC).

In December 2015, the National Strategy for REDD+ of Brazil (ENREDD+) was established by MMA Ordinance No. 370, the overall purpose established by ENREDD+ is to contribute to the mitigation of climate change through the elimination of illegal deforestation, the conservation and restoration of forest ecosystems and the development of a sustainable low carbon forest economy, generating economic, social and environmental benefits. Contributing to the mitigation of climate change through deforestation and forest degradation control, forest recovery and promotion and sustainable development fomentation.

A subsequent initiative was the publication of Decree No. 10.144 in November 2019 that "Establishes the National Commission for Reducing Greenhouse Gas Emissions from Deforestation and Forest Degradation, Conservation of Forest Carbon Stocks, Sustainable Management of Forests and Enhancement of Forest Carbon Stocks - REDD+" with the purpose to coordinate, follow-up, monitor and review the National Strategy for REDD+, and to coordinate the development of requirements for access to payments for results from REDD+ policies and actions in Brazil, recognized by the United Nations Framework Convention on Climate Change.

Finally, in 2022, Decree No. 11.075, of May 19, 2022, which establishes the procedures for the preparation of Sectoral Plans for Climate Change Mitigation and creates the National System for the Reduction of Greenhouse Gas Emissions, which had been in progress since 2009, represents an important step in regulating the market for emission reduction credits, aligning it with commitments made by the

country internationally, but still has some bottlenecks related to the dependence on open plans, targets to be set, standards to be consolidated, among other issues, which prevent its full implementation⁴⁰.

Below, the main relevant legislation and regulations at federal and state levels are listed and detailed. In addition, a brief analysis of the international climate agreements that has been guiding the creation and development of REDD+ initiatives around the world was carried out.

Federal Legislation

- **Law n. 13,123, dated 05/20/2015:** regulates item II of Paragraph 1 and Paragraph 4 of art. 225 of the Federal Constitution, Article 1, Article 8 (j), Article 10 (c), Article 15 and Article 16, Paragraphs 3 and 4, of the Convention on Biological Diversity, promulgated by Decree no. 2,519, dated March 16, 1998; provides access to genetic heritage, protection and access to associated traditional knowledge and benefit sharing for the conservation and sustainable use of biodiversity; revokes Provisional Measure 2,186-16, dated August 23, 2001; and provides other arrangements.

- **Law No. 12,651, dated 05/25/2012:** Provides for the protection of native vegetation; amends Laws No. 6,938, dated August 31, 1981; 9,393, dated December 19, 1996; and, 11,428, dated December 22, 2006; and revokes Laws No. 4,771, dated September 15, 1965; and, 7,754, dated April 14, 1989; Provisional Measure No. 2,166-67, dated August 24, 2001, and other measures.

- **Law No. 14,119, dated 01/13/2021:** Establishes the National Payment Policy for Environmental Services; and amends Laws No. 8,212, dated July 24, 1991; 8,629, dated February 25, 1993; and, 6,015, dated December 31, 1973, to adapt them to the new policy.

- **Decree No. 11,075 dated 05/19/2022:** Establishes procedures for the preparation of Sector Plans for Mitigating Climate Change, establishes the National System for Reducing Greenhouse Gas Emissions and amends Decree No. 11,003, dated March 21, 2022.

- **Law No. 12,187, dated 12/29/2009:** Institutes the National Policy on Climate Change – PNMC and takes other measures.

- **Law No. 12,727, dated 10/17/2012:** Amends Law no. 12,651 dated May 25, 2012, which provides for the protection of native vegetation; amends Laws nos. 6,938 dated August 31, 1981, 9,393 dated December 19, 1996, and 11,428 dated December 22, 2006; revokes Laws nos. 4,771, dated September 15, 1965, and 7,754, dated April 14, 1989, and Provisional Measure no. 2,166- 67, dated August 24, 2001, item 22 of item II of article 167 of Law no. 6,015, dated December 31, 1973, and paragraph 2 dated article 4 of Law no. 12,651, dated May 25, 2012.

- **Decree No. 58,054, dated 03/23/1966:** Promulgates the Convention for protection of flora, fauna and scenic beauty of the countries of America.

⁴⁰ MOTA, Guilherme; SACRAMENTO, Bruno. New federal decree creates basis for emission reduction market in Brazil, May 25, 2022. Available on: <https://lefosse.com/noticias/novo-decreto-federal-11-075-2022-regula-mercado-de-reducao-de-emissoes-no-brasil/>. Accessed on Jan 12, 2023.

- **Decree No. 96,944, dated 10/12/1988:** Creates the Program for the Defense of the Legal Amazon Ecosystem Complex and makes other provisions.
- **Decree No. 2,661, dated 07/08/1998:** Regulates the sole paragraph of Art. 27 of Law No. 4771, dated September 15, 1965 (Forestry Code), through the establishment of precautionary norms related to the use of fire in agropastoral and forestry practices, and other provisions.
- **Decree No. 2,959, dated 02/10/1999:** Provides for measures to be implemented in the Legal Amazon, for monitoring, prevention, environmental education, and fighting forest fires.
- **Decree No. 5,975, dated 11/30/2006:** Regulates Art. 12, final part, 15, 16, 19, 20 and 21 of Law No. 4,771, dated September 15, 1965; Art. 4, section III, of Law No. 6,938, dated August 31, 1981; Art. 2 of Law No. 10,650, dated April 16, 2003; amends and adds provisions to Decrees Nos. 6,514/08 and 3,420/00, and other provisions.
- **State Decree No. 7,390, dated 12/09/2010:** Regulates arts. 6, 11 and 12 of Law No. 12,187, dated December 29, 2009, which establishes the National Policy on Climate Change - PNMC and other provisions.
- **CONAMA Resolution No. 16, dated 12/07/1989:** Establishes the Legal Amazon Environmental Assessment and Control Integrated Program.
- **CONAMA Resolution No. 378, dated 10/19/2006:** Defines undertakings potentially causing national or regional environmental impact for the purposes of the provisions of section III, § 1, Art. 19 of Law No. 4,771, of September 15, 1965, and other provisions.
- **CONAMA Resolution No. 379, dated 10/19/2006:** Creates and regulates data and information system on forest management within the scope of the National Environmental System - SISNAMA.
- **IBAMA Ordinance No. 218, dated 05/04/1989:** Provides for the felling and exploitation of native forests and forest formations native to the Atlantic Forest, and other provisions.
- **MMA MMA Ordinance No. 443, dated December 17, 2014:** Recognize as endangered species of the Brazilian flora those listed in the "Official National List of Flora Species Threatened with Extinction".
- **MMA Ordinance No. 103, dated 04/05/2006:** Provides for the implementation of the Document of Forest Origin - DOF, and other measures.
- **MMA Ordinance No. 253, dated 08/18/2006:** Establishes, as of September 1, 2006, within the scope of the Brazilian Institute of the Environment and Renewable Natural Resources - IBAMA, the Document of Forest Origin - DOF replacing the Authorization for Transport of Forest Products - ATPF.
- **MMA Normative Instruction No. 1, dated 09/05/1996:** Deals with the Mandatory Forest Replenishment and the Integrated Forestry Plan.
- **MMA Normative Instruction No. 07, dated 04/27/1999:** Provides for authorization for deforestation in the States of the Legal Amazon.
- **MMA Normative Instruction No. 02, dated 05/10/2001:** Provides for the economic exploitation of forests on rural properties located in the Legal Amazon, including Legal Reserve areas, except for

permanent preservation areas established in current legislation, which will be carried out through sustainable forest management practices for multiple uses.

- **IBAMA Normative Instruction No. 21 dated 11/23/2014:** Creates the National System for the Control of the Origin of Forest Products - Sinaflor, with the purpose of controlling the origin of wood, charcoal, and other forest products and byproducts, and integrating the respective data from the different federative entities.

- **IBAMA Normative Instruction No. 09 dated 12/09/2016:** Amends the Normative Instruction No. 21, dated December 24, 2014.

- **IBAMA Normative Instruction No. 13 dated 12/18/2017:** Amends Art. 70 of Normative Instruction No. 21, dated December 24, 2014.

- **IBAMA Normative Instruction No. 03 dated 01/23/2020:** Amends the Normative Instruction No. 21, dated December 24, 2014.

- **IBAMA Normative Instruction No. 19 dated 08/21/2021:** Amends the Normative Instruction No. 21, dated December 24, 2014.

- **MMA Normative Instruction No. 06, of 12/15/2006:** Provides for forest replenishment and the consumption of forest raw materials, and other measures.

- **IBAMA Normative Instruction No. 178, dated 06/23/2008:** Defines the guidelines and procedures, on the part of IBAMA, for consideration and approval regarding the issuance of authorizations for the suppression of forests and other forms of native vegetation in an area greater than two thousand hectares in rural properties located in the Legal Amazon and one thousand hectares in rural properties located in other regions of the country.

- **Regulatory Standard No. 31, dated 03/03/2005:** Approves the Regulatory Norm for Safety and Health at Work in Agriculture, Livestock, Forestry and Aquaculture

- **Decree No. 1896, dated 12/09/2013:** Amends the Regulation Norm no. 31.

State Legislation

- **State Law No. 7,389, dated 04/01/2010:** Defines activities with a local environmental impact in the State of Pará and other provisions.

- **State Law No. 7,381, dated 03/19/2010:** Provides on the recomposition of the vegetation cover of riparian forests in the State of Pará.

- **State Law No. 6,745, dated 06/06/2005:** Establishes the Ecological Economic Macro zoning of the State of Pará and other measures.

- **Law No. 7,213, dated 11/03/2008:** Regulates the registration of forest activity, the State System for Environmental Information Management, and the license for transportation of products and byproducts of forest origin in the State of Pará.

- **State Law No. 6,506 dated 12/02/2002:** Establishes the basic guidelines for carrying out the Ecological Economic Zoning (EEZ) in the State of Pará and other measures.

- **State Law No. 6,462, of 07/04/2002:** Provides for the State Policy on Forests and other forms of vegetation.
- **State Law No. 5,977, dated 07/10/1996:** Provides for the protection of wild fauna in the State of Pará.
- **State Law No. 5,887, dated 05/09/1995:** Deals with the State Environmental Policy and other measures.
- **State Decree No. 254, dated 08/08/2019:** Establishes the Paraense Forum on Climate Change and other measures.
- **State Decree No. 216, dated 09/22/2011:** Provides for the environmental licensing of agrosilvopastoral activities carried out in altered and/or underutilized areas outside the legal reserve area and permanent preservation area in rural properties in the State of Pará.
- **State Decree No. 2,436, dated 08/11/2010:** Regulates actions directly or indirectly linked to agrosilvopastoral activities, carried out within areas of alternative land use, considered to have low environmental impact.
- **State Decree No. 2,099, dated 01/27/2010:** Provides for the maintenance, recomposition, conduction of natural regeneration, compensation and composition of the Legal Reserve area of rural properties in the State of Pará and other provisions.
- **State Decree No. 1,697, dated 06/05/2009:** Establishes the Plan for Prevention, Control and Alternatives to Deforestation in the State of Pará and other measures.
- **State Decree No. 1,148, dated 07/17/2008:** Provides for the Rural Environmental Registry – CAR-PA, the Legal Reserve area and other measures.
- **State Decree No. 2,596, dated 08/31/2022:** Regulates the registration of forest activity, the State System for Environmental Information Management, and the license for transportation of products and byproducts of forest origin in the State of Pará.
- **State Decree No. 2,141, dated 03/31/2006:** Regulates provisions of State Law No. 6,462 of July 4, 2002, which provides for the State Policy on Forests and Other Forms of Vegetation and other measures, with the aim of encouraging the recovery of altered and/or degraded areas and the recomposition of legal reserves, for energy, timber, fruit, industrial or other purposes, through forestry and agroforestry repopulation with native and exotic species and other provisions.
- **Resolution No. 54, dated 10/24/2007 (ANNEX 1):** Approves the list of endangered flora and fauna species in the State of Pará.

International Covenants

- **FCCC/CP/2005/Misc.1:** *Reducing emissions from deforestation in developing countries: approaches to stimulate action. Submission from Parties.* (Portuguese translation: Reduzindo emissões de desmatamento em países em desenvolvimento: abordagem para estimular ação. Submissão das partes. COP 11, Montreal, 2005.)

- **FCCC/CP/2007/6/Add.1:** *Report of the Conference of the Parties on its thirteenth session, held in Bali from 3 to 15 December 2007. Addendum. Part two: Action taken by the Conference of the Parties at its thirteenth session.* (Portuguese translation: Relatório da Conferência das Partes sobre sua décima terceira sessão, ocorrida em Bali de 3 a 5 de dezembro de 2007. Addendum. Parte Dois: Ação tomada pela Conferência das Partes em sua décima terceira sessão ou “Action Bali Plan”. COP 13, Bali, 2007.)

- **FCCC/CP/2009/Add.1:** *Report of the Conference of the Parties on its fifteenth session, held in Copenhagen from 7 to 19 December 2009. Addendum. Part Two: Action taken by the Conference of the Parties at its fifteenth session.* (Portuguese translation: Relatório da Conferência das Partes sobre sua décima quinta sessão, ocorrida em Copenhagem de 7 a 19 de dezembro de 2009. Addendum. Parte Dois: Ação tomada pela Conferência das Partes na sua décima quinta sessão ou “Copenhagem Accord”. COP 15, Copenhagem, 2009.)

- **FCCC/CP/2010/7/Add. 1:** *Report of the Conference of the Parties on its sixteenth session, held in Cancun from 29 November to 10 December 2010. Addendum. Part Two: Action taken by the Conference of the Parties at its sixteenth session.* (Portuguese translation: Relatório da Conferência das Partes sobre sua décima sexta sessão, ocorrida em Cancun de 19 de novembro a 10 de dezembro de 2010. Addendum. Parte Dois: Ação tomada pela Conferência das Partes na sua décima sexta sessão ou “Cancun Agreement”. COP 16, Cancun, 2010.)

- **FCCC/CP/2011/9/Add. 1:** *Report of the Conference of the Parties on its seventeenth session, held in Durban from 28 November to 11 December 2011. Addendum. Part Two: Action taken by the Conference of the Parties at its seventeenth session.* (Portuguese translation: Relatório da Conferência das Partes sobre sua décima sétima sessão, ocorrida em Durban de 28 de novembro a 11 de dezembro de 2011. Addendum. Parte Dois: Ação tomada pela Conferência das Partes em sua décima sétima sessão. COP 17, Durban, 2011.)

- **FCCC/CP/2012/8/Add.1:** *Report of the Conference of the Parties on its eighteenth session, held in Doha from 26 November to 8 December 2012. Addendum. Part two: Action taken by the Conference of the Parties at its eighteenth session.* (Portuguese translation: Relatório de Conferência das Partes sobre sua décima oitava sessão, ocorrida em Doha de 26 de novembro a 8 de dezembro. Addendum. Parte Dois: Ação tomada pela Conferência das Partes em sua décima oitava sessão.)

- **FCCC/CP/2013/Add.1:** *Warsaw Framework for REDD-plus, held in Warsaw, Poland, from 11 to 22 November 2013* (Portuguese translation: Pacote de Varsóvia para REDD+, ocorrida em Varsóvia, Polônia, de 11 a 22 de Novembro de 2013), em especial as seguintes decisões:

- **Decision9/CP.19:** *Work programme on results-based finance to progress the full implementation of the activities referred to in decision 1/CP. 16, paragraph 70.* (Portuguese translation: Programa de trabalho em financiamento baseados em resultados para o progresso da implementação completa das atividades referidas na decisão 1/CP. 16, parágrafo 70.)

- **Decision10/CP.19:** *Coordination of support for the implementation of activities in relation to mitigation actions in the forest sector by developing countries, including institutional arrangements.*

(Portuguese translation: Coordenação do suporte para a implementação de atividades relacionadas a ações de mitigação no setor florestal por países em desenvolvimento, incluindo arranjos institucionais.)

- **Decision12/CP.19:** *The timing and the frequency of presentations of the summary of information on how all the safeguards referred to in decision1/CP.16, appendix I, are being addressed and respected.*

(Portuguese translation: O tempo e a frequência na qual são apresentadas as informações resumidas de como todas as salvaguardas referidas na decisão1/CP.16, apêndice I, estão sendo abordadas e respeitadas.)

- **Decision13/CP.19:** *Guidelines and procedures for the technical assessment of submissions from Parties on proposed forest reference emission levels and/or forest reference levels.* (Portuguese translation: Guia e procedimentos para avaliação técnica das submissões das Partes em propostas de níveis de referência em emissões florestais e/ou níveis de referência florestal.)

- **Decision14/CP.19:** *Modalities for measuring, reporting and verifying.* (Portuguese translation: Modalidades para medir, reportar e verificar.)

- **Decision15/CP.19:** *Addressing the drivers of deforestation and forest degradation.* (Abordagem dos vetores de desmatamento e degradação florestal.)

- **FCCC/CP/2015/Add.1:** *Report of the Conference of the Parties on its twenty-first session, held in Paris from 30 November to 13 December 2015. Addendum. Part two: Action taken by the Conference of the Parties at its twenty-first session.* (Portuguese translation: Relatório de Conferência das Partes sobre sua vigésima primeira sessão, ocorrida em Paris de 30 de novembro a 13 de dezembro. Addendum. Parte Dois: Ação tomada pela Conferência das Partes em sua vigésima primeira sessão).

- **FCCC/CP/2018/10/Add.1:** *Report of the Conference of the Parties on its twenty-fourth session, held in Katowice from 2 to 15 December 2018.* (Portuguese translation: Relatório da Conferência das Partes em sua vigésima quarta sessão, realizada em Katowice de 2 a 15 de dezembro de 2018).

- **FCCC/CP/2016/10/Add.1:** *Report of the Conference of the Parties on its twenty-second session, held in Marrakech from 7 to 18 November 2016.* (Portuguese translation: Relatório da Conferência das Partes em sua vigésima segunda sessão, realizada em Marrakech de 7 a 18 de novembro de 2016.)

- **FCCC/PA/CMA/2021/10/Add. 1:** *Report of the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement on its third session, held in Glasgow from 31 October to 13 November 2021.* (Portuguese translation: Relatório da Conferência das Partes servindo como reunião das Partes do Acordo de Paris em sua terceira sessão, realizada em Glasgow de 31 de outubro a 13 de novembro de 2021), em especial a seguinte decisão:

- **Decision -/CP.26:** Glasgow Climate Pact

— **Brazilian Nationally Determined Contribution - Brazilian NDC** submitted in September 2015 to the United Nations Framework Convention on Climate Change for mitigation, adaptation and means of implementation, consistent with the purpose of contributions to achieve the ultimate purpose of the Convention, pursuant to decision 1/CP .20, paragraph 9.

- **Brazilian Nationally Determined Contribution - Brazilian NDC** submitted in April 2022 to the United Nations Framework Convention on Climate Change for mitigation, adaptation and means of implementation, consistent with the purpose of contributions to achieve the ultimate purpose of the Convention, pursuant to decision 1/CP.20, paragraph 9.

- **CITES, dated 03/03/1973:** “*Convention on International Trade in Endangered Species of Wild Fauna and Flora*”, signed in Washington D.C. on March 3, 1973, amended in Bonn on June 22, 1979.

2.4.7 Project Benefit Crediting (G5.9)

Not applicable. The project does not hold or wish to generate any type of environmental credit related to GHG emissions reductions or claimed removals beyond the VCS Program, in which it is already validated. Information regarding the GHG emissions reductions generated by the project during this monitoring period is found in the detailed VCS monitoring report.

3 CLIMATE

3.1 Net Positive Climate Impacts

3.1.1 Net Impact (CL2.2, CL3.1, CL3.3)

The demonstration of the project's net climate impact (Total Net GHG Emissions Reduction, ex-post) can be found in the VCS monitoring report, in the respective sections:

- Total GHG emissions or removals in the without project scenario (as set out in the validated project description) - 5.1 Baseline emissions;
- Total GHG emissions or removals resulting from project activities - 5.2 Project Emissions;
- Any negative offsite climate impact (leakage) related to the project - 5.3 Leakage.

Non-CO2 emissions were not accounted for because, during the monitored period, activities that could generate these emissions were not encouraged by the project. In addition, these emissions did not occur due to uncontrolled forest fires and other catastrophic events.

3.2 Offsite Climate Impacts (Leakage)

3.2.1 Leakage Mitigation (CL3.2)

The REDD+ Jari Pará Project has two leak source monitoring activities:

1. Monitoring of the reduction in carbon stocks and/or increase in GHG emissions correlated to the leakage prevention measures if the Project proponents implement activities such as tree planting, agricultural intensification, fertilization, fodder production and/or other improvement measures in agricultural and pasture areas, in case these activities imply reduction in carbon stocks and/or increase in

GHG emissions in the leakage management areas. During the monitored period the project proponents did not carry out any of the mentioned interventions. The activities implemented by the project, with this purpose of preventing and mitigating potential leakage sources are presented in section 4.3.1 and in item 3.1 of the VCS monitoring report.

2. Monitoring forest cover in the Leakage Belt using satellite imagery to account for reduced carbon stock and increased GHG emissions due to leakage displacement. The section 2.4.4 presents in a detailed way the surveillance activities of the areas carried out with the purpose of preventing the occurrence of leakages, as well as, in items 3.1 and 4.3.3 of the VCS monitoring report, the activities carried out to mitigate this source of leakage during the monitored period are detailed.

3.3 Climate Impact Monitoring

3.3.1 Climate Impact Monitoring Results (CL4.1)

The results of the monitoring can be found in the VCS monitoring report section 5.

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

REDD+ Jari Pará Project has implemented three methods of communication, aiming to guarantee access to the documents and all the other information about the Project to the communities and other actors through voice, written and virtual means. The Monitoring Guide stands out as one of the tools for dissemination, presenting activities, indicators, and practices for monitoring activities.

The results were disseminated in a virtual version where the documents related to monitoring were provided through Verra's website and website, newsletter, and Biofílica's social media, and orally from presentations about the project results during the Technical Assistance and Rural Extension (TARE) process, as well as, it is planned that the results will be disseminated to the communities in a more didactic way, through a summary of the Monitoring Guide and in the annual public consultations, where the results of the project will be discussed, promoting a participatory evaluation of the deliveries and suggestions, and improvement points will be raised that may be increased in the planning of the following year, ensuring the engagement of communities in the decision-making process.

3.4 Optional Criterion: Climate Change Adaptation Benefits

3.4.1 Activities and/or Processes Implemented for Adaptation (GL1.3)

The likely changes caused by climate change and its impacts are described in section 2.1.3. The project aims to achieve Gold Level certification for Climate Change Adaptation Benefits, based on the measures taken to significantly support communities and biodiversity to adapt to the likely impacts of climate change, which are described below.

Project activity	Climate change risks and concerns addressed	Project achievements during the monitoring period
Deforestation monitoring and surveillance	<ul style="list-style-type: none"> • Unstructured land use conversion • Damage caused by forest fires • Increased CO2 emissions • Loss of Biodiversity 	<ul style="list-style-type: none"> • Inhibition of illegal activities (deforestation, hunting and illegal fishing) in the Project Zone. • Prevention of wildfire outbreaks.
Strengthening of Family Agriculture and Sustainable Extractivism	<ul style="list-style-type: none"> • Threat to the food sovereignty of families • Decreased income generation • Soil depletion • Loss of biodiversity 	<ul style="list-style-type: none"> • Technical assistance and rural extension • Courses and training • Donation of supplies • Environmental regularization
Promotion of environmental education	<ul style="list-style-type: none"> • Environmental degradation • Forest fire • Loss of biodiversity 	<ul style="list-style-type: none"> • Lectures, workshops, training
Strengthening associativism and cooperativism in the communities	<ul style="list-style-type: none"> • Population migrations • Difficult access to public policies 	<ul style="list-style-type: none"> • Encouraging the participation of young people and women • Creation of a Community Council • Construction of rules for community use • Courses and training
Construction of infrastructure for the communities	<ul style="list-style-type: none"> • Isolation • Energy Crisis 	<ul style="list-style-type: none"> • Deployment of Electricity System • Donation of solar panels and lanterns • Deployment of telephony and internet
Biodiversity monitoring	<ul style="list-style-type: none"> • Habitat fragmentation • Population decline • Species extinction 	<ul style="list-style-type: none"> • Flora monitoring • Fauna monitoring • Monitoring of the HCVAs

3.4.2 Adaptation Monitoring (GL1.4)

The following presents how the Project has been contributing to the communities and biodiversity to adapt to climate change.

Project activity	Project achievements during the monitoring period	Adaptation activities
Monitoring of deforestation and property surveillance	<ul style="list-style-type: none"> • Inhibition of illegal activities (deforestation, hunting and illegal fishing) in the Project Zone • Prevention of wildfire outbreaks 	<ul style="list-style-type: none"> • The surveillance and patrolling of areas were carried out via remote sensing, and whenever alert focal points were identified, they were supplemented by the surveillance team's actions in loco, by land and water. The Project avoided 1,753,725 tons of CO2 emissions, containing deforestation in 14,868 hectares in the Project Zone. • The activities allow a quick response in case of alert points identification, and their

Project activity	Project achievements during the monitoring period	Adaptation activities
		<p>constancy inhibits illegal practices in the areas monitored by the Project.</p> <ul style="list-style-type: none"> The preservation of these areas helps to maintain the ecosystem's resilience, especially for biodiversity, with regard to the challenges of climate change.
<p>Strengthening of Family Agriculture and Sustainable Extractivism</p>	<ul style="list-style-type: none"> Technical assistance and rural extension Courses and training Donation of supplies Environmental regularization 	<ul style="list-style-type: none"> Through TARE activities, new production chains were implemented/encouraged, allowing farmers to diversify their production, reducing the risk of dependence on only one type of crop. TARE also worked on the documentation support fronts, so that the beneficiaries had access to public policies for purchasing their production, and rural credit, being an important channel for the financial security of these families. Delimitation of the areas with the environmental function of preserving water resources, the landscape, geological stability, and biodiversity, facilitating the genetic flow of fauna and flora, protecting the soil and ensuring the well-being of the populations, by means of a survey in the properties and the elaboration of the Rural Environmental Registry, following the current legislation in force.
<p>Promotion of environmental education</p>	<ul style="list-style-type: none"> Lectures, workshops, training 	<ul style="list-style-type: none"> Community members trained for action on several environmental fronts, among which we highlight the practices for fighting and preventing fires, through management techniques that are more beneficial to the environment, and guidance on the correct opening of fire breaks. Environmental knowledge about the preservation of areas that must be permanently protected. Community members as protagonists facing the responsibility of environmental management.
<p>Strengthening associativism and cooperativism in the communities</p>	<ul style="list-style-type: none"> Encouraging the participation of young people and women Creation of a Community Council 	<ul style="list-style-type: none"> Diversification of employment and income opportunities for women and young people in the communities, thus generating resilience to the challenges brought by climate change.

Project activity	Project achievements during the monitoring period	Adaptation activities
	<ul style="list-style-type: none"> • Construction of rules for community use • Courses and training 	<ul style="list-style-type: none"> • Community development and strengthening of leaderships, to better face the challenges of climate change and the struggle for rights of access to public policies.
Construction of infrastructure for the communities	<ul style="list-style-type: none"> • Deployment of Electricity System • Donation of solar panels and lanterns • Deployment of telephony and internet 	<ul style="list-style-type: none"> • Communities with access to clean energy. • People with access to solar panels for their daily activities. • Deployment of internet and/or rural telephone in communities, removing them from a situation of isolation and facilitating communication with other actors, mainly for requesting help in cases of health.
Biodiversity Monitoring	<ul style="list-style-type: none"> • Flora monitoring • Fauna monitoring • Monitoring of the HCVAs 	<ul style="list-style-type: none"> • Subsidy for the creation of a database to monitor the behavior of biodiversity in the face of climate change. • Monitoring of endangered species, allowing the implementation of a species conservation plan. • Protecting the biodiversity of the Savanna HCVA. • Protection of the HCVA Vila do Planalto spring, ensuring access to the resource for the needs of the local community.

4 COMMUNITY

4.1 Net Positive Community Impacts

4.1.1 Community Impacts (CM2.1)

During the implementation of the project's activities, there was no differentiation for the assistance offered among the communities involved, all members of the communities had the opportunity to receive technical assistance (TARE) and get involved in the training offered by the Project. In general, 58 communities located exclusively in the state of Pará were included in the project's action scope, whether in TARE advisory services, improvements and/or courses and training.

Due to the large volume of communities assisted, we prioritized highlighting the impacts of the communities located in the Project Zone, grouped by the "Gleba" (denomination given to the properties that compose the Project Zone) owned by Grupo Jari. The list of communities by Gleba can be found in the Appendix of the final version that will be delivered to the VVB. It should be noted that the communities with the most significant benefits in the Project Zone were presented, but this does not mean that those not listed have not been impacted by the Project's actions, mainly because there is an open channel and the opportunity to participate in the activities without distinction between the communities.

Community Group	Community in the Gleba Antônio Fernandes da Fonseca Teixeira (Água Azul)
Impact	<ol style="list-style-type: none"> 1. Access to technical assistance and rural extension services; 2. Qualification of community members; 3. Increased food safety and facilitation in production processes; 4. Conflict mediation.
Type of Benefit/Cost/Risk	Actual direct benefit
Change in Well-being	<ol style="list-style-type: none"> 1. Community members had access to knowledge and technologies through the provision of technical assistance and rural extension services (TARE). The purpose was to introduce good cultivation practices and integrated management on the properties, aiming at improving quality, increasing productivity, and diversifying family production; 2. 15 families were trained in agro-extractive techniques for native açai plantation management, with sustainable and productive management techniques, reducing the pressure on the forest, contributing with the ecosystem services and promoting the well-being of the communities;

	<p>3. Community members received donations of seedlings and inputs, helping in agricultural production, as one of the means of guaranteeing the maintenance of the means of production and subsistence.</p> <p>4. The services provided for conflict mediation are carried out according to the spontaneous demands of the community members, in the search for a conciliatory solution to disputes over tenure rights or the use of natural resources, and promote a friendlier environment among the community members, especially when an agreement is reached through mediation, directly strengthening the community.</p>
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Community Group	Communities in the Gleba Cajueiro Serra de Almeirim (Km 22, Km 25 and Esposento)
Impact	<ol style="list-style-type: none"> 1. Access to technical assistance and rural extension services; 2. Qualification of community members; 3. Access to guidance on rural credit and financing.
Type of Benefit/Cost/Risk	Actual direct benefit
Change in Well-being	<ol style="list-style-type: none"> 1. Community members had access to knowledge and technologies through the provision of technical assistance and rural extension services (TARE). The purpose was to introduce good cultivation practices and integrated management on the properties, aiming at improving quality, increasing productivity, and diversifying family production; 2. 26 families were trained in agro-extractive techniques for native açai plantation management, with sustainable and productive management techniques, reducing the pressure on the forest, contributing with the ecosystem services and promoting the well-being of the communities; 3. One of the objectives of the services provided by TARE is to improve the income and quality of life of rural families by means of mechanisms for access to resources. In this context, the meetings on access to credit and financing are an important channel for clarifying doubts of the communities and providing both documentary support and guidance on how to obtain credit lines.

Community Group	Community in the Gleba Castanhal do Urucurituba (Cafezal)
Impact	<ol style="list-style-type: none"> 1. Access to technical assistance and rural extension services; 2. Qualification of community members; 3. Specialized information for accessing public policies; 4. Action of environmental education; 5. Access to Internet; 6. Implementation of an industrial plant for processing nuts.
Type of Benefit/Cost/Risk	Actual direct benefit
Change in Well-being	<ol style="list-style-type: none"> 1. Community members had access to knowledge and technologies through the provision of technical assistance and rural extension services (TARE). The purpose was to introduce good cultivation practices and integrated management of the properties, aiming at improving quality, increasing productivity, and diversifying family production. It is noteworthy that the cassava multiplication unit was developed in partnership with Embrapa, the technique allows to circumvent undesirable characteristics, such as the low rate of propagation and the large volumes of conventional planting materials, which make difficult the logistics of storage and transportation of manioc to new areas, besides the improvement in the production method, the process of transferring production technology for families of farmers attending the Project occurs; 2. 01 family trained in fish farming and 21 families trained in hygiene and handling of processed food, contributing to the diversification of income and adding value to the product; 3. The families had access to public purchasing workshops, providing knowledge and access to important policies for the strengthening of family agriculture, being an important space to clarify doubts of the community members; 4. The environmental education actions allow the individual and the collectivity build social values, knowledge, skills, attitudes and competencies directed to the conservation of the environment; 5. The improvement in the community's infrastructure, with the installation of an internet antenna, takes the community out of a zone of isolation, having opportunities to communicate faster, helping in cases of emergency and health, as well as allowing

	<p>access to local and world news, and access to knowledge given the possibilities of internet use;</p> <p>6. In the Cafezal community an agro-industry was set up to process Brazil nuts. Advisories were taken and through partnerships the purchasing of machinery and equipments, although the agro-industry is located in the Cafezal community, its benefits are extended to the associations of agro-extractivist residents of the communities of São Raimundo, Redra Branca, Recreio and Panamá in the region of Parú (Asmacaru), adding value to the product and increasing the income of the agro-extractivist families.</p>
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Community Group	Community in the Gleba Conceição do Igarapé do Inferno (Pedral)
Impact	<ol style="list-style-type: none"> 1. Access to technical assistance and rural extension services; 2. Support for obtaining rural credit and financing; 3. Creation of a Community Council; 4. Knowledge in burn control techniques and fire management; 5. Lectures on conscious consumption of resources; 6. Technical support for Rural Environmental Registration; 7. Access to electricity.
Type of Benefit/Cost/Risk	Actual direct benefit
Change in Well-being	<ol style="list-style-type: none"> 1. Community members had access to knowledge and technologies through the provision of technical assistance and rural extension services (TARE). The purpose was to introduce good cultivation practices and integrated management on the properties, aiming at improving quality, increasing productivity, and diversifying family production; 2. One purpose of the services provided by TARE is to improve the income and quality of life of rural families through mechanisms of access to resources, the support in the documental part for access to credit and financing is an important tool to obtain credit lines, support was given to obtain and access rural credit, by issuing a report for Banco Amazônia to 04 families. 3. The creation of the community council allows the community to feel represented by its leaders, as a means of expressing the wishes and needs of the community, in an organized way for the

	<p>search of resources and mobilization of actions in favor of benefits for the community, with public and private partnerships;</p> <p>4. As part of the environmental education actions, the community members had access to lectures on firefighting and fire control, providing guidance on accessible measures, such as the correct execution of fire breaks, with the aim of reducing the outbreaks of fires on the properties and disseminating information about the damage caused by fire to the environment;</p> <p>5. Also in the scope of the environmental education actions, a lecture was given about the conscious use of electric energy, aiming to reduce the waste of natural resources, contributing to sustainability and educating the community members financially, considering the savings that conscious consumption provides;</p> <p>6. The advisory services provided for the properties' Environmental Rural Register, besides being an integral part of the environmental regularization of the properties, provides community members with improved knowledge about the boundaries of their properties and the management of their natural resources;</p> <p>7. The community has benefited from the extension of the electric power grid, allowing to use and have access to various goods and services that depend on electric power, improving the quality of life of the community in various areas, such as: the possibility of carrying out various activities at night (study, leisure and work), improved conditions for food conservation and agricultural production, access to information via television and radio. And finally, it discourages rural exodus, considering the benefits provided to the community.</p>
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Community Group	Community in the Gleba Cujahy (Fé em Deus)
Impact	1. Access to technical assistance and rural extension services; 2. Qualification of community members.
Type of Benefit/Cost/Risk	Actual direct benefit
Change in Well-being	1. Community members had access to knowledge and technologies through the provision of technical assistance and rural extension services (TARE). The purpose was to introduce good cultivation practices and integrated management on the

	<p>properties, aiming at improving quality, increasing productivity, and diversifying family production;</p> <p>2. 01 family trained in fish farming (basic techniques and breeding), disseminating the necessary knowledge for a possible diversification of production and income generation.</p>
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Community Group	Community in the Gleba Eugênio José Gentil Guedes (Nova Vida)
Impact	<ol style="list-style-type: none"> 1. Access to technical assistance and rural extension services; 2. Support for obtaining rural credit and financing; 3. Knowledge in burn control techniques and fire management; 4. Conflict mediation; 5. Technical support for Rural Environmental Registration.
Type of Benefit/Cost/Risk	Actual direct benefit
Change in Well-being	<ol style="list-style-type: none"> 1. Community members had access to knowledge and technologies through the provision of technical assistance and rural extension services (TARE). The purpose was to introduce good cultivation practices and integrated management of the properties, aiming at improving quality, increasing productivity, and diversifying family production; 2. One purpose of the services provided by TARE is to improve the income and the quality of life of rural families by means of mechanisms to access resources, the support in the documental part to access credit and financing is an important tool to obtain credit lines, support was given to obtain and access rural credit, by issuing a report to Banco Amazônia for 01 family; 3. As part of the environmental education actions, the community members had access to lectures on firefighting and fire control, providing guidance on accessible measures, such as the correct execution of fire breaks, with the aim of reducing the outbreaks of fires on the properties and disseminating information about the damage caused by fire to the environment; 4. The mediation services are carried out according to the spontaneous demands of the community, in the search for a conciliatory solution to disputes over tenure rights or the use of natural resources, and promote a friendlier environment among

	<p>the community, especially when an agreement is reached through mediation, directly strengthening the community.</p> <p>5. The assistance given for the properties' Environmental Rural Registry, besides being an integral part of the environmental regularization of the properties, gives the community an improved knowledge about the limits of their property and the management of its natural resources</p>
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Community Group	Communities in the Gleba Fazenda Saracura (Buritizal, Ramal Serra Grande, Recreio, Morada Nova, Km 30, Goela da Morte, Guete, Base, Freguesia, Itaninga, Palheta)
Impact	<ol style="list-style-type: none"> 1. Access to technical assistance and rural extension services; 2. Qualification of community members; 3. Knowledge in burn control techniques and fire management; 4. Technical support for Rural Environmental Registration; 5. Support for obtaining rural credit and financing; 6. Communication improvement.
Type of Benefit/Cost/Risk	Actual direct benefit
Change in Well-being	<ol style="list-style-type: none"> 1. Community members had access to knowledge and technologies through the provision of technical assistance and rural extension services (TARE). The purpose was to introduce good cultivation practices and integrated management of the properties, aiming at improving quality, increasing productivity, and diversifying family production. It is noteworthy that 13 families in the Recreio community were contemplated with the implementation of 10 ha of cassava cultivation in a mechanized area. 2. Families from the communities Buritizal, Morada Nova, Km 30, Goela and Guete had the opportunity to participate in training courses on agro-extractive techniques for native açazal management. In the communities Goela and Base were offered training on banana culture, with receipt of seedlings, in the community Morada Nova was offered training in poultry farming and in the community Goela was offered a course on good practices of table flour and tapioca. 3. As part of the environmental education actions, community members from communities: Buritizal, Serra Grande, Recreio,

	<p>Morada Nova, Km 30 and Goela, had access to lectures on firefighting and fire control, guiding them to accessible measures, such as the correct execution of firebreaks, aiming to reduce the outbreaks of fires on the properties and disseminate information about the data caused by fire to the environment.</p> <p>4. The advisory services provided for the properties' Environmental Rural Register, besides being an integral part of the properties' environmental regularization, gives the communities improved knowledge about the boundaries of their properties and the management of their natural resources.</p> <p>5. One of the objectives of the services provided by TARE is to improve the income and quality of life of rural families through mechanisms of access to resources. The support in the documental part for access to credit and financing is an important tool for obtaining credit lines, support was provided to obtain and access rural credit, by issuing a report to Banco Amazônia for 04 families from the Km 30 community and 01 family from the Goela community.</p> <p>6. Communication conditions in the Recreio community were improved by the implementation of a radio, providing access to news and important information. In the communities Itaninga and Palheta, cellular phones and an antenna for rural telephony were given to the community, removing them from an isolation zone, giving them the opportunity to communicate faster, mainly helping in cases of emergency and health.</p>
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Community Group	Community in the Gleba Joaquim Nunes de Almeida (Tinguelingue)
Impact	<ol style="list-style-type: none"> 1. Access to technical assistance and rural extension services; 2. Creation of a Community Council; 3. Technical support for Rural Environmental Registration; 4. Access to electricity.
Type of Benefit/Cost/Risk	Actual direct benefit
Change in Well-being	1. Community members had access to knowledge and technologies through the provision of technical assistance and rural extension services (TARE). The purpose was to introduce good cultivation practices and integrated management of the

	<p>properties, aiming at improving quality, increasing productivity, and diversifying family production;</p> <p>2. The creation of the community council allows the community to feel represented by its leaders, as a means of expressing the community's desires and needs, in an organized way for the search of resources and mobilization of actions in favor of benefits for the community, with public and private partnerships.</p> <p>3. The advisory services provided for the properties' Environmental Rural Register, besides being an integral part of the properties' environmental regularization, gives the communities improved knowledge about the boundaries of their properties and the management of their natural resources.</p> <p>4. The community has benefited from the extension of the electric power grid, making it possible to use and access various goods and services that depend on electric power, improving the quality of life of community members in various areas, such as: the possibility of carrying out various activities at night (study, leisure and work), improved conditions for food and agricultural production conservation, access to information via television and radio. And finally, it discourages rural exodus, considering the benefits provided to the community.</p>
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Community Group	Community in the Gleba José Porto de Oliveira (Braço)
Impact	<ol style="list-style-type: none"> 1. Access to technical assistance and rural extension services; 2. Qualification of community members; 3. Conflict mediation; 4. Specialized information for accessing public policies. 5. Technical support for Rural Environmental Registration; 6. Access to Internet; 7. Access to electricity.
Type of Benefit/Cost/Risk	Actual direct benefit
Change in Well-being	<ol style="list-style-type: none"> 1. Community members had access to knowledge and technologies through the provision of technical assistance and rural extension services (TARE). The purpose was to introduce good cultivation practices and integrated management of the properties, aiming at improving quality, increasing productivity, and diversifying family production. Highlighting the actions of

	<p>TARE in the production of vegetables, with the implantation and recovery of plastic structures with irrigation through the micro-sprinkler system for 01 family;</p> <p>2. The families had the opportunity to participate in training in hydroponic cultivation techniques;</p> <p>3. The mediation services are carried out according to the community's spontaneous demand, in the search for a conciliatory solution to disputes over tenure rights or the use of natural resources, and promote a friendlier environment among the community, especially when an agreement is reached through mediation, directly strengthening the community as a whole;</p> <p>4. Families have had access to public purchasing workshops, providing them with knowledge and access to important policies for strengthening family farming, which is an important opportunity to clear up doubts among community members;</p> <p>5. The advisory services provided for the properties' Environmental Rural Register, besides being an integral part of the properties' environmental regularization, gives the communities improved knowledge about the boundaries of their properties and the management of their natural resources.</p> <p>6. The improvement in the community's infrastructure, with the provision of fiber optic internet, takes the community out of a zone of isolation, having opportunities to communicate faster, helping in cases of emergency and health, as well as allowing access to local and world news.</p> <p>7. The community has benefited from the extension of the electric power grid, making it possible to use and access various goods and services that depend on electric power, improving the quality of life of community members in various areas, such as: the possibility of carrying out various activities at night (study, leisure and work), improved conditions for food and agricultural production conservation, access to information via television and radio. And finally, it discourages rural exodus, considering the benefits provided to the community.</p>
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Community Group	Communities in the Gleba Panama ou Mapau (Pimental, Estrada Nova, Panaminha, Ramal do zé Queimado, Ramal da Esperança, Encruzo)
Impact	<ol style="list-style-type: none"> 1. Access to technical assistance and rural extension services; 2. Qualification of community members; 3. Knowledge in burn control techniques and fire management; 4. Creation of a Community Council; 5. Support for obtaining rural credit and financing.
Type of Benefit/Cost/Risk	Actual direct benefit
Change in Well-being	<ol style="list-style-type: none"> 1. Community members had access to knowledge and technologies through the provision of technical assistance and rural extension services (TARE). The purpose was to introduce good cultivation practices and integrated management of the properties, aiming at improving quality, increasing productivity, and diversifying family production. We highlight the TARE actions in the production of vegetables, with the implementation and recovery of plastic structures with irrigation through the micro sprinkler system for 01 family in the Pimental community; 2. The families of the Pimental community had the opportunity to participate in training courses on management of native açazal, and for the communities Estrada Nova, Panaminha, Zé Queimado and Ramal da Esperança families could participate in actions for planning for cocoa cultivation. The dissemination of sustainable and productive management techniques reduces the pressure on the forest, and contributes to the ecosystem services and promotes the well-being of the communities; 3. As part of the environmental education actions, the community members in such communities: Pimental, Estrada Nova, Panaminha, and Encruzo, had access to lectures on firefighting and fire control, guiding to measures, such as the correct execution of firebreaks, aiming to reduce the outbreaks of fires on properties and disseminate information about the data caused by fire to the environment. 4. The creation of the community council allows the community to feel represented by its leaders, as a means of expressing the community's desires and needs, in an organized way for the

	<p>search of resources and mobilization of actions in favor of benefits for the community, with public and private partnerships.</p> <p>5. 5. One of the objectives of the services provided by TARE is to improve the income and the quality of life of rural families by means of mechanisms for access to resources, the support in the documental part for access to credit and financing is an important tool for obtaining lines of credit, support was provided to obtain and access rural credit, by issuing a report to Banco Amazônia for 06 families from the Pimental community and 01 family from the Estrada Nova community.</p>
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Community Group	Community in the Gleba Papudo (Vila dos Gatos)
Impact	<ol style="list-style-type: none"> 1. Access to technical assistance and rural extension services; 2. Knowledge in burn control techniques and fire management; 3. Technical assistance for the Rural Environmental Registration; 4. Communication improvement; 5. Access to electricity.
Type of Benefit/Cost/Risk	Actual direct benefit
Change in Well-being	<ol style="list-style-type: none"> 1. Community members had access to knowledge and technologies through the provision of technical assistance and rural extension services (TARE). The purpose was to introduce good cultivation practices and integrated management on the properties, aiming at improving quality, increasing productivity, and diversifying family production; 2. As part of the environmental education actions, community members from communities: Pimental, Estrada Nova, Panaminha, and Incruzo, had access to lectures on firefighting and fire control, guiding them to accessible measures, such as the correct execution of firebreaks, aiming to reduce the outbreaks of fires on properties and disseminate information about the data caused by fire to the environment; 3. The advisory services provided for the properties' Environmental Rural Register, besides being an integral part of the properties' environmental regularization, gives the communities improved knowledge about the boundaries of their properties and the management of their natural resources;

	<p>4. The communication conditions in the community were improved with the cession of cell phone and antenna for rural telephony in the community, removing them from an isolation zone, having opportunities to communicate faster, mainly helping in cases of emergency and health;</p> <p>5. The community has benefited from the extension of the electric power grid, making it possible to use and access various goods and services that depend on electric power, improving the quality of life of community members in various areas, such as: the possibility of carrying out various activities at night (study, leisure and work), improved conditions for food and agricultural production conservation, access to information via television and radio. And finally, it discourages rural exodus, considering the benefits provided to the community.</p>
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Community Group	Communities in the Gleba Samahuma (Serra Pelada, Monte Sião, Matadouro)
Impact	<ol style="list-style-type: none"> 1. Access to technical assistance and rural extension services; 2. Qualification of community members; 3. Knowledge in burn control techniques and fire management; 4. Communication improvement.
Type of Benefit/Cost/Risk	Actual direct benefit
Change in Well-being	<ol style="list-style-type: none"> 1. Community members had access to knowledge and technologies through the provision of technical assistance and rural extension services (TARE). The purpose was to introduce good cultivation practices and integrated management of the properties, aiming at improving quality, increasing productivity, and diversifying family production. We highlight the TARE actions in the production of vegetables, with the implementation and recovery of plastic structures with irrigation through the micro sprinkler system for 01 family in the Monte Sião community; 2. The families of the community Serra Pelada Pimental had the opportunity to participate in training in the management of native açai tree. The dissemination of sustainable and productive management techniques reduces the pressure on the forest, and contributes to the ecosystem services and promotes the well-being of the communities;

	<p>3. As part of the environmental education actions, the community members of Monte Sião have had access to lectures on firefighting and fire control, providing guidance on accessible measures, such as the correct execution of fire breaks, with the aim of reducing the outbreaks of fires on the properties and disseminating information about the damage caused by fire to the environment;</p> <p>4. The communication conditions in the community were improved in the Itaninga community, with the cession of a cell phone and an antenna for rural telephony in the community, removing them from an isolation zone, having opportunities to communicate faster, mainly helping in cases of emergency and health.</p>
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Community Group	Communities in the Gleba Santo Antônio da Cachoeira - 01 (São Militão, Bananal, Repartimento dos Pilões, Vila nova)
Impact	<ol style="list-style-type: none"> 1. Access to technical assistance and rural extension services; 2. Qualification of community members; 3. Knowledge in burn control techniques and fire management; 4. Creation of a Community Council; 5. Communication improvement; 6. Access to Internet; 7. Infrastructure improvement; 8. Access to electricity.
Type of Benefit/Cost/Risk	Actual direct benefit
Change in Well-being	<ol style="list-style-type: none"> 1. Community members had access to knowledge and technologies through the provision of technical assistance and rural extension services (TARE). The purpose was to introduce good cultivation practices and integrated management of the properties, aiming at improving quality, increasing productivity, and diversifying family production. 2. 02 families from the Bananal community were trained in pisciculture and 03 families in Repartimento dos Pilões were trained in hydroponic cultivation, providing the necessary knowledge for a possible diversification of production and income generation.

	<p>3. As part of the environmental education actions, the community members had access to lectures on firefighting and fire control, providing guidance on accessible measures, such as the correct execution of fire breaks, with the aim of reducing the outbreaks of fires on the properties and disseminating information about the damage caused by fire to the environment;</p> <p>4. The creation of the community council in the São Militão community, allows the community to feel represented by its leaders, being a means of expression of the wishes and needs of the community, in an organized way for the search of resources and mobilization of actions for the benefit of the community, with public and private partnerships.</p> <p>5. The communication conditions in the Bananal community were improved with the cession of a cell phone and an antenna for rural telephony in the community, removing it from an isolation zone, having opportunities to communicate faster, mainly helping in cases of emergency and health;</p> <p>6. The implementation of fiber optic internet in the Repartimento dos Pilões community brings improvements to the community's infrastructure, providing opportunities to communicate faster, helping in cases of emergency and health, as well as allowing access to local and world news, and access to knowledge given the possibilities of internet use.</p> <p>7. Improvements in infrastructure also occurred in the recovery of a bridge that gives access to the Repartimento dos Pilões community, the recovery of this access facilitates the lives of communities, often being a shorter commute option for everyday actions;</p> <p>8. The communities were benefited with the extension of the electric power grid, enabling the use and access of various goods and services that depend on electrical sources, improving the quality of life of the community in various areas, such as: the possibility of performing various activities at night (study, leisure, and work), improved conditions of food conservation and agricultural production, access to information via television and radio. And finally, it discourages rural exodus, considering the benefits provided to the community.</p>
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Community Group	Communities in the Gleba São Bento (Planalto, Bandeira)
Impact	<ol style="list-style-type: none"> 1. Access to technical assistance and rural extension services; 2. Qualification of community members; 3. Specialized information for accessing public policies. 4. Knowledge in burn control techniques and fire management; 4. Access to Internet; 5. Support for issuing CAR and DAP; 6. Access to electricity; 7. Communication improvement.
Type of Benefit/Cost/Risk	Actual direct benefit
Change in Well-being	<ol style="list-style-type: none"> 1. Community members had access to knowledge and technologies through the provision of technical assistance and rural extension services (TARE). The purpose was to introduce good cultivation practices and integrated management of the properties, aiming at improving quality, increasing productivity, and diversifying family production. 2. 10 families from the Bananal community were trained in hydroponic cultivation, providing the required knowledge for a possible diversification of production and income generation. 3. 3. The families of the Bandeira community had access to public purchasing workshops, providing knowledge and access to important policies for strengthening family farming. 4. As part of the environmental education actions, the community members had access to lectures on firefighting and fire control, providing guidance on accessible measures, such as the correct execution of fire breaks, with the aim of reducing the outbreaks of fires on the properties and disseminating information about the damage caused by fire to the environment; 5. The implementation of fiber optic internet in the Bandeira community provides the community with opportunities to communicate faster, helping in cases of emergency and health, as well as allowing access to local and world news, and access to knowledge given the possibilities of internet use; 6. Families from the Bandeira community were assisted in completing the Rural Environmental Registration and DAP. The CAR of the properties, besides being an integral part of the

	<p>environmental regularization of the properties, gives the community an improved knowledge about the limits of their property and the management of its natural resources. The DAP is an essential document for the family farmer to access PRONAF credit lines and at least 15 other Federal Government Public Policies; the TARE actions in the scope of the support in issuing the document, is an essential mechanism for strengthening family agriculture and support in increasing the farmer's income;</p> <p>7. The communication conditions in the Bandeira community were improved with the cession of a cellular phone and an antenna for rural telephony, removing it from an isolation zone, having opportunities to communicate faster, mainly helping in cases of emergency and health</p>
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Community Group	Community in the Gleba Segredo (São Miguel)
Impact	<ol style="list-style-type: none"> 1. Access to technical assistance and rural extension services; 2. Knowledge in burn control techniques and fire management; 3. Support for obtaining rural credit and financing; 4. Advisory on issuing the CAR. 5. Access to electricity; 6. Creation of Community Council.
Type of Benefit/Cost/Risk	Actual direct benefit
Change in Well-being	<ol style="list-style-type: none"> 1. Community members had access to knowledge and technologies through the provision of technical assistance and rural extension services (TARE). The purpose was to introduce good cultivation practices and integrated management on the properties, aiming at improving quality, increasing productivity, and diversifying family production; 2. As part of the environmental education actions, the community members had access to lectures on firefighting and fire control, providing guidance on accessible measures, such as the correct execution of fire breaks, with the aim of reducing the outbreaks of fires on the properties and disseminating information about the damage caused by fire to the environment; 3. One of the objectives of the services provided by TARE is to improve the income and the quality of life of rural families by means of mechanisms to access resources, the support in the

	<p>documental part to access credit and financing is an important tool to obtain credit lines; support was provided to obtain and access rural credit, by issuing a report to Banco Amazônia for 03 families;</p> <p>4. The advisory services provided for the properties' Environmental Rural Register, besides being an integral part of the properties' environmental regularization, gives the communities improved knowledge about the boundaries of their properties and the management of their natural resources;</p> <p>5. The community has benefited from the extension of the electric power grid, making it possible to use and access various goods and services that depend on electric power, improving the quality of life of community members in various areas, such as: the possibility of carrying out various activities at night (study, leisure and work), improved conditions for food and agricultural production conservation, access to information via television and radio. And finally, it discourages rural exodus, considering the benefits provided to the community;</p> <p>6. The creation of the community council allows the community to feel represented by its leaders, as a means of expressing the community's desires and needs, in an organized way for the search of resources and mobilization of actions in favor of benefits for the community, with public and private partnerships.</p>
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Community Group	Communities in the Gleba Serra Grande (Vila Nova - Rio Arraiolos, Ilha de São Paulo)
Impact	<p>Technical assistance and rural extension services provided by the Fundação Jari, focused on strengthening family farming and agro-extractivism.</p> <p>Environmental education activities for communities.</p> <p>Advisory on issuing the DAP.</p> <p>Implementation of fiber optic internet in the Vila Nova community.</p>
Type of Benefit/Cost/Risk	Actual direct benefit
Change in Well-being	The families involved in the project had access to knowledge and technologies through the provision of technical assistance and rural extension services (TARE).

	<p>The environmental education actions allow the and collectivity build social values, knowledge, skills, attitudes, and competencies forenvironmental conservation.</p> <p>The DAP is a key document for the family farmer to access the PRONAF credit lines and also at least 15 other public policies of the Federal Government, the TARE actions in the scope of support in issuing the document, is an essential mechanism for strengthening family farming and support in increasing the farmer's income.</p> <p>Moreover, the improvement in the infrastructure of the community, with the availability of fiber optic internet, takes the community out of an isolation zone, having opportunities to communicate faster, helping in cases of emergency and health, as well as allowing access to local and world news.</p>
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Community Group	Gleba Alzira Antunes Martins, farmers at Domingos Reis Branch ⁴¹
Impact	<ol style="list-style-type: none"> 1. Access to technical assistance and rural extension services; 2. Communication improvement.
Type of Benefit/Cost/Risk	Actual direct benefit
Change in Well-being	<ol style="list-style-type: none"> 1. Community members had access to knowledge and technologies through the provision of technical assistance and rural extension services (TARE). The purpose was to introduce good cultivation practices and integrated management of the properties, aiming at improving quality, increasing productivity, and diversifying family production. 2. The provision of telephone equipment and an antenna for rural telephony in the community removes the community from an area of isolation, providing opportunities to communicate more quickly, especially helping in cases of emergency and health.

It is worth mentioning that the impacts are not limited to the beneficiaries of the communities inserted in the Project Zone, such as the TARE actions, training and capacity building, internet, rural telephony, and the creation of community councils. And that these results are demonstrated in section 4.1.3.

⁴¹ Domingos Reis Branch is not a formal community.

4.1.2 Negative Community Impact Mitigation (CM2.2)

As expected, the REDD+ Jari Pará Project did not provide negative impacts for the well-being of local communities, especially for those participating in the project. The most relevant negative impact identified during project preparation would be the lack of interest from other stakeholders and the increase in the number of local people due to migration to the Project area, which were mitigated by the following measures:

- The involvement of various stakeholders in the decision making processes was ensured and encouraged, participating mainly in workshops, courses, training and diagnostics conducted by Fundação Jari. In addition to this, the existing communication channels were monitored and constantly improved during the monitoring period.
- To mitigate the risks of invasion of the property and ensure that illegal activities that threaten the natural resources do not occur, the project supported and gave all necessary support to the surveillance team to conduct their field patrols by waterways and land, acting to prevent illegal activities. Besides this, as expected, the population movement due to the project activities and its related impacts did not occur, because only the communities already established and consolidated in the area were able to participate in the project activities.

For the maintenance and improvement of the Area of High Conservation Value (HCVA), land inspections were carried out in loco, and remotely by satellite images. The monitoring of the HCVA Nascente is carried out through inspections to check the structural integrity of the habitat around the spring and the analysis of the quality of the water produced there, as described in the item 5.1.4.

It is noteworthy that although the Project's actions have not had a negative impact on the communities, the Impact Evaluation of Social Projects in the communities identified a certain dissatisfaction among some community members who were part of the sample. This perception presented in the study mainly reflects a certain lack of understanding of the REDD+ Project, and it does not invalidate the points made by the community members, which will be followed up by Fundação Jari. In particular, the frequent Public Consultation process that the proponents will start implementing as of 2023 will be essential to clarify the importance of the Project activities and its scope, as well as the use of the Monitoring Guide, a document that deals with definitions, information, responsibilities and procedures related to the REDD+ Project.

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

The socioeconomic conditions of the communities impacted by the execution of REDD+ Jari Pará Project are positive, compared to a scenario without the project. The positive impacts, which occurred within the monitored period, are related to the various activities developed and structured along the main axes: Technical Assistance and Rural Extension, Social Organization and Technical Strengthening, support in the infrastructure improvements of the communities, efficient management and transparency processes.

During the monitored period, the Project carried out a socio-economic development process for the engaged communities, focusing specifically on consolidation of local social organizations, improvement in

community infrastructure, and provision of a differentiated TARE with a focus on diversification, increase and commercialization of production, related to activities with a social and environmental focus.

To this end, direct training and capacity building for producers were carried out based on participative strategies with the joint construction of knowledge and the most appropriate techniques for the communities, maximizing the results to be obtained and continuously involving the producers in the management.

The methodology applied in these actions is based on the improvement of the knowledge already mastered by the farmers, integrated with complementary information, thus giving more autonomy to the farmers. Therefore, the project has had the following positive impacts:

- I. Producers trained in better production techniques and processing of agricultural products;
- II. Access to technical assistance and rural extension services directed to the reality of each community;
- III. Creation of new spaces for participation to create opportunities for direct communication with other stakeholders;
- IV. Access to workshops and training in agroforestry and agricultural techniques, giving access to various production technologies;
- V. Increased knowledge and skills in agroforestry systems, agricultural production, and REDD+;
- VI. Environmental education on several topics, helping the processes of the individual and the collectivity to build knowledge, skills, attitudes, and competencies aimed at environmental conservation;
- VII. Facilitation in the access to public policies;
- VIII. Knowledge in burn control techniques and fire management;
- IX. Creation of Community Councils;
- X. Improvement of energy and communication systems and community infrastructure, directly benefiting 655 families.

The main positive indirect impacts achieved during this monitoring period were: Empowerment of resource management, increased self-esteem and confidence, greater access to local public policies, greater opportunities for access to credits (loans), natural resources used in a conscious way, fixation of the rural community in the countryside and consequent reduction of rural exodus and urban marginalization, mitigation of risks of extreme weather events, increased availability and safe access to food, approximation and dialogue with public agents, poverty reduction, increased consumer power and increased social welfare.

4.1.4 Other Social Impacts Generated in the Community

Besides the activities developed aiming at the benefits expected by the REDD+ Jari Pará Project, Fundação Jari develops other activities focused on promoting human development in the communities located in the region where the Grupo Jari is operating.

During the monitored period, the proponents understood that the Fundação Jari is not limited to working with community members in the field and directly protecting the forest. Therefore, the REDD+ project activities and indicators developed in the Vale do Jari incorporated into the Foundation's organizational structure. So that, besides the demonstration of results with the direct forest conservation work, the project encourages other actions with other stakeholders, mainly of a social assistance nature, which generate an indirect positive impact on the project.

This occurs through the actions of Fundação Jari for human and sustainable development, which is promoted through Programs and Projects free of charge, prioritizing not only actions in the field of generating work and income as a strategy to fight poverty, but also acting in the base of development, encouraging and strengthening Public Policies and Social Organizations in the fields of Assurance of Rights, Health, Education, Culture, Environment, and Agriculture. The purpose is to provide access to information for people in local communities, offering guidance services for the knowledge of basic rights and available public policies, strengthening access to public services and citizenship and social welfare actions through advice to sector and rights councils and social education initiatives, integrated with professional training actions, productive inclusion, and Technical Assistance and Rural Extension.

Additionally, the Fundação Jari is acknowledged as a Social Assistance Entity, operating in compliance with the Organic Law on Social Assistance (LOAS), CNAS Resolution No. 27/2011 and the Recommendation of Technical Note No. 10/2018 - Advisory Services, Defense and Assurance of Rights, Technical Note No. 03/2017 - Social Assistance Activities and Services in the Rural Environment.

In order to help strengthen public policies and the community organization process at the three levels of human and sustainable development (Social, Economic and Environmental), the Fundação Jari plays a role as an agent that allows opportunities through public-private institutional articulation measures; training and development of social leaders; professional qualification and local entrepreneurship, generating jobs and income; and education and social mobilization for forest conservation. By implementing these different measures, in an integrated way, it is possible to influence changes in the behavior of families and communities, with respect to overcoming poverty and the violation of their social rights.

Therefore, the other social impacts generated to the communities can be identified through the following activities:

Projeto Estação de Direitos (Rights Station Project) proposes to contribute to the Social Assistance Policy in Vale do Jari, being part of the network of the Unified Social Assistance System - SUAS. Complying with the parameters of the National Typification of Social Assistance Services, according to Resolution CNAS No. 109/2009, working with the offer of free advisory services Defense and Assurance of Rights, in three fronts: Balcão de Direitos, Social Office and Social Control.

Balcão de Direitos (Counter of Rights) is a strategy of Fundação Jari to guide the access to public policies for the whole community, there is a mediation, guidance and referrals to the social assistance network, through the violations of fundamental human rights and especially to children, adolescents and families.

Among the activities carried out in the monitored period to meet the community needs in several aspects, there were services in the following scopes:

Health: support in scheduling medical appointments, surgeries, and the right to treatment and specialized medical services, prevention activities (lectures, conversation rounds).

Social: referrals to social assistance, guidance for obtaining documents, support in actions with the guardianship council, guidance for complaints, among others.

Labor: preparation of résumés, support in registering for professional courses, document printing.

The **Social Office** provides technical assistance to social institutions, focused on team building, planning, writing, and updating projects for obtaining financial resources, promotion edicts, and resource mobilization. Fundação Jari analyzes and prioritizes the entities that are already developing some project in the community, both in the area of Social Assistance and in the area of the Rights Assurance System. The direct target public of the entities receiving assistance are preferentially children, teenagers, young people, women, people with disabilities, LGBTQIA+ and the elderly, and, indirectly, their families. The advisory is carried out free of charge to the entities and organizations, and the only mandatory requirement to receive the advisory is that these entities also offer free services to the community.

Regarding the role of the **Social Control**, with active participation of Fundação Jari as the Civil Society representative in the Municipal Social Assistance Councils, in the State and Municipal Councils for the Rights of Children and Adolescents, in the Forum for the Prevention and Eradication of Child Labor, in the Networks for preventing Sexual Abuse and Exploitation of Children and Adolescents, and in the UNICEF Seal's Intersectorial Commissions, through joint actions at the inter-sectorial level with the public authorities and organized civil society, strengthening the System for the Guarantee and Protection of Rights. The Figure 9 presents a summary of a scope of these activities.



Figure 9: Summary of the activities developed in the scope of community development.

In addition to the activities mentioned above, the Foundation donated basic food baskets to vulnerable communities and materials for productive activities, as well as equipment to important institutions in the communities.



Figure 10: Menino Nota 10 Project, organization advised by the Social Office.



Figure 11: Health care, drug delivery.



Figure 12: Publicizing youth leadership training activities.



Figure 13: Basic baskets for donation

4.1.5 Protection of High Conservation Values (CM2.4)

During the monitored period, no impacts were identified on the high conservation value attributes related to social issues (HCVAs 5 and 6). However, if these are identified in the future, measures must be taken to ensure that there are no net negative impacts on the attributes.

Special attention should be paid to the Castanhais. The Brazil nut deserves special care mainly because, along with other non-timber forest products, such as copaiba and andiroba, they are important as

a source of income resources for local traditional communities. For this reason, any tree species that is valuable for the sustenance of the communities must be protected. And, in addition to the commitment of Grupo Jari, the Brazil nut is still protected by Brazilian federal law (Federal Decree No. 5.975 dated November 30, 2006), which would constitute an illegal activity to bring down this tree. The nut groves of the communities Cafezal and Arumanduba are already fully mapped.

Currently the mapping of the perimeter of the chestnut groves has been occurring by demands in the communities, often generated in conflicts that are mediated by the Intersectoral Center for Conflict Mediation of the Fundação Jari, which acts in the search for conciliatory solutions to disputes between civilians over the right of possession or use of natural resources (land boundaries and the right to use cashew nut groves. Activities developed by the Nucleus include mediation hearings, collection of points (GPS) with UTM coordinates of the perimeter of the chestnut grove for the preparation of maps and collection of points (GPS) for the correct delimitation of the boundaries of legitimate landholdings, according to the Official State Document.

In the scope of the Community Councils, the document of the Rules for the Use of Chestnut Trees was built, a formal instrument, elaborated in a participative way in the community between the families, where coexistence rules were established that aim at the respect in the collective use of natural resources by the community. The sustainable management of these areas is essential to guarantee the continuity of their production.

4.2 Other Stakeholder Impacts

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

Considering the implemented actions in REDD+ Jari Pará Project, negative impacts on other stakeholders were not expected, and these were not identified during the monitoring period.

However, as a measure to mitigate possible impacts, the Project presents as a strategy to involve the participation of various actors in the activities and decision-making processes. Besides this, there is the conflict resolution procedure, which has proven to be effective, and external stakeholders have several channels available, whether by phone, email or in person, to raise criticisms and/or suggestions.

4.2.2 Net Impacts on Other Stakeholders (CM3.3)

As described and detailed in section 4.2.1, other negative impacts on the well-being of other local stakeholder groups are not anticipated, nor did they occur in the monitored period, since the Project does not limit access to natural resources in the Project area for any agent originally dependent on these resources, and the activities to be carried out in relation to the surrounding communities are based primarily on coordination with government agencies and other local institutions precisely for the promotion of improved living conditions, greater access to public policies and rural extension and technical assistance.

The activities outlined and proposed for this Project only aim at impacts that promote inclusion and well-being to the communities and other involved parties.

4.3 Community Impact Monitoring

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

Monitoring the Project's impacts on communities and other actors is an important management tool, enabling assessment of the effectiveness of activities in achieving the proposed objectives.

The Vale do Jari REDD+ Program Monitoring Guide was developed to be the main monitoring tool and has the purpose of describing, institutionalizing and guiding the control and registration among the stakeholders of how to monitor the REDD+ projects established in the Vale do Jari, taking into account the required adaptations to the reality, as well as the establishment of attributions and responsibilities in a more precise and transparent way for each stakeholder in this process, and details how the method for gathering evidence for each indicator should be. During the monitoring period, the monitoring evidence was recorded by the Fundação Jari's technicians.

The activities carried out by REDD+ Jari Pará Project, as well as monitoring aim to access the effectiveness of the focused interventions: engagement of local actors and stakeholders, strengthening of associativism, promotion of rural technical assistance, strengthening of Fundação Jari and improvements in communication and energy systems. Monitoring benefits to communities has three components:

- Monitoring the **engagement of actors**, which aims to monitor the implementation of activities linked to the articulation and engagement of institutions and entities (governmental, non-governmental and private) to facilitate communities in accessing public policies, basic services and rural development, from the constitution of the technical chambers;

- Monitoring the **strengthening of associativism**, focusing on the activities (courses, training, and articulations) developed to strengthen associativism, its results and impacts;

- Monitoring the **activities for the articulation of rural technical assistance services**, by monitoring results on increasing diversification related to agro-extractivist productivity and the implementation of more sustainable techniques and technologies, as well as the access to the market;

- Monitoring of the activities of **Strengthening the Fundação Jari**, monitoring the result in increasing the effectiveness of impact business development actions together with the communities;

- Monitoring of the activities to improve the supply of energy and communication to the communities, monitoring the results of the efforts of articulation with the government for access to the program Light for All and the results of the installation of telephone and internet access points in the communities.

The results from the monitored period are presented below.

Strengthening of Family Agriculture and Sustainable Extractivism:

Several actions of the Project sought to support the strengthening of family farming and sustainable extractivism, making families remain in the field, with the application of sustainable soil management techniques, allied to the conservation of natural resources, also considering social and economic aspects, such as the culture of family farming and the independence to commercialize the products.

In this period, the TARE advisory services stand out, which have included from technical visits for support and dissemination of knowledge in the daily activities in the field, to assistance focused on the environmental regularization of the properties (completion of the Rural Environmental Registration - CAR), support in obtaining rural credit (issuance of reports), support in obtaining licenses for productive activities (Rural Environmental License - LAR) and support in issuing the Declaration of Aptitude to the National Program for Strengthening Family Agriculture - DAP, an identification document for family agriculture, essential for the family farmer to access PRONAF (National Program for Strengthening Family Agriculture) credit lines and also at least 15 other Public Policies of the Federal Government, including PNAE (National School Feeding Program). In the year 2021 the Project will assist 05 family farmers, from 04 communities, to access the PNAE as suppliers in the year 2021.



Figure 14: Rural Technical Support: Cassava cuttings multiplication unit in the Cafezal community.

In addition, the TARE actions are extended to the activities of fertilizer and input donation to producers, aiming to assist agricultural production, being one of the means of guaranteeing the maintenance of subsistence and income generation. In the sequence are detailed the indicators and results obtained by the Project. In the monitored period, approximately 900 people received technical assistance focused on the activities of Strengthening Family Agriculture and Sustainable Extractivism.

Data/Parameter	Number of producers benefited by REDD+ Project	
Data unit	Number of engaged people	
Data source	TARE advisory forms and attendance lists	
Description of the means of measurement and procedures to be applied	The number of people who received TARE assistance focused on family farming and sustainable extractivism activities was counted, based on TARE advisory forms and attendance lists	
Monitoring/recording frequency	Annually	
Monitored amount	Year	Number of people
	2018	402
	2019	303
	2020	42
	2021	254
	2022	60
Calculation method	Number of engaged people	
Comments	<p>The number of people was counted by the names present in the TARE advisory forms and attendance list related to technical assistance activities focused on family farming and extractivism, such as: field assistance, donation of inputs, forest inventory, assistance for issuing CAR, DAP, rural credit, advisory meetings.</p> <p>It is worth mentioning that the forms are filled out by hand, so in some cases it was not possible to understand the name and/or signature, which results in a margin of error in the accounting of the data, expressed as a minus. With the implementation of the TARE application, for the next monitored period, this data will be extracted digitally, thus reducing these inconsistencies in the data.</p>	

Additionally, courses and training were offered on various topics: poultry farming, açai farming, cacao farming, fish farming, handling, processing, among others, empowering community members with more productive and sustainable techniques, presenting possibilities for income diversification. In addition, lectures and meetings were offered on some topics, including obtaining rural credit and public policies, although they are not called courses and training, these activities are important tools for the empowerment of rural producers, because they are the space where all the information and guidance is presented, being the most accessible channel to answer the doubts of producers. More than offering support to the stakeholders (which is done in the scope of TARE activities), these lectures and meetings aim to disseminate knowledge and make them able to seek access to both public policies and rural credit.

Data/Parameter	Number of courses and training
----------------	--------------------------------

Data unit	Number												
Data source	Attendance list												
Description of the means of measurement and procedures to be applied	The number of courses and training held aimed at strengthening family farming and sustainable extractivism, such as training, workshops, meetings, among others, was accounted for.												
Monitoring/recording frequency	Annually												
Monitored amount	<table border="1"> <thead> <tr> <th>Year</th> <th>Number of trainings</th> </tr> </thead> <tbody> <tr> <td>2018</td> <td>18</td> </tr> <tr> <td>2019</td> <td>7</td> </tr> <tr> <td>2020</td> <td>0</td> </tr> <tr> <td>2021</td> <td>8</td> </tr> <tr> <td>2022</td> <td>7</td> </tr> </tbody> </table>	Year	Number of trainings	2018	18	2019	7	2020	0	2021	8	2022	7
Year	Number of trainings												
2018	18												
2019	7												
2020	0												
2021	8												
2022	7												
Calculation method	Counting the number of courses and training through attendance lists and registration forms												
Comments													

Data/Parameter	Number of participations												
Data unit	Number												
Data source	Minutes, attendance lists												
Description of the means of measurement and procedures to be applied	The number of participations in the offered training was counted. Some training courses were offered on more than one day; in these cases, an average number of participations was obtained considering all the days.												
Monitoring/recording frequency	Annually												
Monitored amount	<table border="1"> <thead> <tr> <th>Year</th> <th>Number of attendances</th> </tr> </thead> <tbody> <tr> <td>2018</td> <td>387</td> </tr> <tr> <td>2019</td> <td>137</td> </tr> <tr> <td>2020</td> <td>0</td> </tr> <tr> <td>2021</td> <td>146</td> </tr> <tr> <td>2022</td> <td>87</td> </tr> </tbody> </table>	Year	Number of attendances	2018	387	2019	137	2020	0	2021	146	2022	87
Year	Number of attendances												
2018	387												
2019	137												
2020	0												
2021	146												
2022	87												
Calculation method	Counting the number of people trained based on attendance lists. In cases of long duration courses, the average participation of all days was considered to obtain the number.												
Comments													

By means of the technical assistance offered 10 productive chains were implemented/encouraged, being them: cultivation of açai palm tree, poultry farming, cacao farming, Brazil nut extraction, fruit farming, horticulture, manioculture, pisciculture, forestry, and swine farming, aiming at the diversification of the

family's agricultural production and activities of sustainable use of the forest, increase in the family's productivity and in the generation of income, promoting socioeconomic development ensuring food and economic security for the families.



Figure 15: Cultivation of Açaí palm tree: productive chain promoted by REDD+ Jari Pará Project

Data/Parameter	Number of productive chains implemented and/or promoted by the Project													
Data unit	Quantity of products													
Data source	TARE advisory sheets and reports													
Description of the means of measurement and procedures to be applied	The productive chains implemented through the TARE advisory sheets and TARE activity reports were accounted for													
Monitoring/recording frequency	Annually													
Monitored amount	<table border="1"> <thead> <tr> <th>Year</th> <th>Number of chains</th> </tr> </thead> <tbody> <tr> <td>2018</td> <td>6</td> </tr> <tr> <td>2019</td> <td>8</td> </tr> <tr> <td>2020</td> <td>3</td> </tr> <tr> <td>2021</td> <td>9</td> </tr> <tr> <td>2022</td> <td>3</td> </tr> </tbody> </table>		Year	Number of chains	2018	6	2019	8	2020	3	2021	9	2022	3
Year	Number of chains													
2018	6													
2019	8													
2020	3													
2021	9													
2022	3													
Calculation method	Count of chains implemented (by product)													
Comments														

Environmental Education Program

Several strategies were used to promote environmental education, in particular fire control and fire prevention was the topic most addressed in the campaigns, aiming to reduce the number of outbreaks of fire on rural properties, because it is a matter of concern to the community, the lectures were focused on guiding preventive actions and firefighting, encouraging the use of techniques and management alternatives that are less aggressive to the environment,

There were also lectures on conscious consumption, environmental regularization, and recovery of degraded areas, some of these activities were extended to schools in the region, thus reaching a larger audience, which can be multipliers of this information, especially for the future of the region.

In total there were 38 environmental education actions, which reached an expressive number of 768 participants in the activities, divided into: 27 lectures on fire prevention, control and prevent of forest fires; 04 lectures on conscious consumption of electricity and water; 02 lectures on Permanent Protection Areas, Conservation Units and Legal Reserve; 05 community cinema actions.

It is hoped that this will increase the community's awareness of environmental issues, as well as provide them with greater knowledge of more sustainable management techniques and environmental policies, making the communities protagonists and strengthening the development of local strategic public policies.

Data/Parameter	Number of courses and training (Lectures, campaigns and workshops with the theme environmental education about environmental degradation, recovery of degraded areas, fire prevention, adaptation to environmental legislation, among others)													
Data unit	Number													
Data source	Minutes, activity reports, attendance lists													
Description of the means of measurement and procedures to be applied	The number of activities carried out with a focus on environmental education (lectures and community cinema) was counted													
Monitoring/recording frequency	Annually													
Monitored amount	<table border="1"> <thead> <tr> <th>Year</th> <th>Number of courses</th> </tr> </thead> <tbody> <tr> <td>2018</td> <td>14</td> </tr> <tr> <td>2019</td> <td>24</td> </tr> <tr> <td>2020</td> <td>0</td> </tr> <tr> <td>2021</td> <td>0</td> </tr> <tr> <td>2022</td> <td>0</td> </tr> </tbody> </table>		Year	Number of courses	2018	14	2019	24	2020	0	2021	0	2022	0
Year	Number of courses													
2018	14													
2019	24													
2020	0													
2021	0													
2022	0													
Calculation method	Counting the number of courses and training													
Comments														

Data/Parameter	Number of participations
Data unit	Number

Data source	Attendance list												
Description of the means of measurement and procedures to be applied	The number of participations in the environmental education activities was counted using the attendance lists.												
Monitoring/recording frequency	Annually												
Monitored amount	<table border="1"> <thead> <tr> <th>Year</th> <th>Number of attendances</th> </tr> </thead> <tbody> <tr> <td>2018</td> <td>271</td> </tr> <tr> <td>2019</td> <td>497</td> </tr> <tr> <td>2020</td> <td>0</td> </tr> <tr> <td>2021</td> <td>0</td> </tr> <tr> <td>2022</td> <td>0</td> </tr> </tbody> </table>	Year	Number of attendances	2018	271	2019	497	2020	0	2021	0	2022	0
Year	Number of attendances												
2018	271												
2019	497												
2020	0												
2021	0												
2022	0												
Calculation method	Counting the number of participations												
Comments													

Strengthening of associations and cooperatives in the communities:

All actions aimed at promoting the strengthening of associativism and cooperativism in the communities were accounted for, from meetings to courses on the subject, especially the activities carried out within the scope of already consolidated associations, seeking to further strengthen this organizational structure.

Data/Parameter	Number of courses and training												
Data unit	Number												
Data source	Minutes, activity reports, attendance lists												
Description of the means of measurement and procedures to be applied	The courses and activities that were linked to associativism and cooperativism were counted, among them: courses held within the scope of the associations, workshops with community members, and meetings with leaders and associations.												
Monitoring/recording frequency	Annually												
Monitored amount	<table border="1"> <thead> <tr> <th>Year</th> <th>Number of activities</th> </tr> </thead> <tbody> <tr> <td>2018</td> <td>4</td> </tr> <tr> <td>2019</td> <td>0</td> </tr> <tr> <td>2020</td> <td>0</td> </tr> <tr> <td>2021</td> <td>33</td> </tr> <tr> <td>2022</td> <td>5</td> </tr> </tbody> </table>	Year	Number of activities	2018	4	2019	0	2020	0	2021	33	2022	5
Year	Number of activities												
2018	4												
2019	0												
2020	0												
2021	33												
2022	5												
Calculation method	Counting the number of courses and training held												
Comments													

Data/Parameter	Number of attendances
Data unit	Number

Data source	Minutes, activity reports, attendance lists												
Description of the means of measurement and procedures to be applied	Participation in activities related to associations and cooperatives were recorded, including courses held within the associations, workshops with community members, and meetings with leaders and associations.												
Monitoring/recording frequency	Annually												
Monitored amount	<table border="1"> <thead> <tr> <th>Year</th> <th>Number of trainings</th> </tr> </thead> <tbody> <tr> <td>2018</td> <td>87</td> </tr> <tr> <td>2019</td> <td>0</td> </tr> <tr> <td>2020</td> <td>0</td> </tr> <tr> <td>2021</td> <td>527</td> </tr> <tr> <td>2022</td> <td>65</td> </tr> </tbody> </table>	Year	Number of trainings	2018	87	2019	0	2020	0	2021	527	2022	65
Year	Number of trainings												
2018	87												
2019	0												
2020	0												
2021	527												
2022	65												
Calculation method	Counting the number of attendances												
Comments													

The participation of women is always encouraged in the Project's activities, especially to occupy leadership positions. So far, the minutes of assemblies and constitution are the only instruments available to measure the number of women involved in the associations/ cooperatives benefited, which justifies that in the years when the information is unavailable, it reflects the absence of this record and not necessarily the lack of actions in this scope. The justification for the methodology to account for this indicator is also expressed in detail in the section 2.1.2.

Data/Parameter	Number of women involved in the associations/ cooperatives benefited by REDD+ Project												
Data unit	Number												
Data source	Minutes of associations/ cooperatives												
Description of the means of measurement and procedures to be applied	The survey was done by counting the minutes that indicated women in the positions of the associations/cooperatives												
Monitoring/recording frequency	Annually												
Monitored amount	<table border="1"> <thead> <tr> <th>Year</th> <th>Number of women</th> </tr> </thead> <tbody> <tr> <td>2018</td> <td>0</td> </tr> <tr> <td>2019</td> <td>0</td> </tr> <tr> <td>2020</td> <td>0</td> </tr> <tr> <td>2021</td> <td>31</td> </tr> <tr> <td>2022</td> <td>0</td> </tr> </tbody> </table>	Year	Number of women	2018	0	2019	0	2020	0	2021	31	2022	0
Year	Number of women												
2018	0												
2019	0												
2020	0												
2021	31												
2022	0												
Calculation method	Number of women in positions in the associations/cooperatives												
Comments													

Structuring of the Cooperative Nuclei of the Communities:

A total of 10 associations/cooperatives were benefited in the monitored period, 06 of which received advisory services: COOPMAR - Cooperative of Timber Extraction Producers of Almeirim and Region; COOPNHARIN - Cooperative of Labor and Natural Artifacts of the Chestnut River; CYPOS; Açai Extraction Producers; Grupo SEARA and Versatile Needles [Aguilhas Versáteis]. And 04 associations received support for regularization: APROSAN - Association of Agro-extractive Producers and Artisanal Fishermen of the Santa Luzia do Taiassuy community; APRAFA - Association of Rural Producers and Family Farmers; ATEAEPA - Association of Extractive Workers of Pará and Amapá, and COPABAM - Cooperative of Agro-extractive Producers of the Lower Amazon.

Data/Parameter	Number of associations/cooperatives benefited by REDD+ Project	
Data unit	Number of associations/ cooperatives	
Data source	Activity report	
Description of the means of measurement and procedures to be applied	The survey was done by accounting for the activity reports	
Monitoring/recording frequency	Annually	
Monitored amount	Year	Number of associations
	2018	2
	2019	3
	2020	3
	2021	10
	2022	3
Calculation method	Counting the number of benefited associations/cooperatives	
Comments		

Installation of electricity in the communities:

Since 2017, the Foundation has been actively contributing to the inclusion of the rural communities of the Almeirim municipality in the public policy for providing access to rural energy, carrying out activities of mapping the communities and improving the branches and roads for the electric power companies to implement the "Light for All" program, carrying out the extension of the electric grid.

During the monitoring period, 10 communities were benefited with the implementation of the electric power system: Braço, Bandeira, Vila Nova, Repartimento, Vila dos Gatos, Ting Lingue, São Miguel, Pedral, São Militão, and Bananal (MTD), resulting in improved living conditions for 504 families.

Data/Parameter	Number of producers benefited by REDD+ Project												
Data unit	Number of engaged families												
Data source	Activity report												
Description of the means of measurement and procedures to be applied	The number of communities that have benefited from the installation of electric energy was counted through the activity reports of Fundação Jari, and the number of families was counted according to the latest socio-environmental study survey (started in 2019 and completed in 2022).												
Monitoring/recording frequency	Annually												
Monitored amount	<table border="1"> <thead> <tr> <th>Year</th> <th>Number of Communities</th> </tr> </thead> <tbody> <tr> <td>2018</td> <td>0</td> </tr> <tr> <td>2019</td> <td>116</td> </tr> <tr> <td>2020</td> <td>388</td> </tr> <tr> <td>2021</td> <td>0</td> </tr> <tr> <td>2022</td> <td>0</td> </tr> </tbody> </table>	Year	Number of Communities	2018	0	2019	116	2020	388	2021	0	2022	0
Year	Number of Communities												
2018	0												
2019	116												
2020	388												
2021	0												
2022	0												
Calculation method	Counting the number of benefited families												
Comments													

Construction of communication infrastructure for the communities:

A rural telephone system via cell phone was implanted in the communities: Itaninga, Acarapi, Santa Rosa (2019), and Buritizal I, Vila dos Gatos, Palheta, Matadouro, Estrada da Bauxita⁴², Bananal (MTD), and Bandeira (2021). And Internet in the communities: Santa Rosa, Cafezal, Bananal (Rio Parú) (2020), Braço and Bandeira (2021), Vila Nova and Repartimento (2022).

In total, 14 communities have had improvements in their infrastructure, benefiting 442 families.

Data/Parameter	Number of producers benefited by REDD+ Project
Data unit	Number of engaged families
Data source	Activity reports and terms of equipment assignment and use
Description of the means of measurement and procedures to be applied	The number of communities that benefited from improved communication was counted through the activity reports of Fundação Jari and terms of equipment assignment. The number of families was counted according to the latest socio-environmental study survey (started in 2019 and completed in 2022)
Monitoring/recording frequency	Annually

⁴² Estrada da Bauxita (Ramal Domingos Reis) is not a formalized community, for this reason the number of families occupying the region was not surveyed by the socio-environmental diagnosis at this time, thus the number of families benefited in this location is not expressed in the indicator.

Monitored amount	Year	Quantity of Communities
	2018	0
	2019	57
	2020	73
	2021	285
	2022	60
Calculation method	Counting the number of benefited families	
Comments		

4.3.2 Monitoring Plan Dissemination (CM4.3)

As described in section 3.3.2, the REDD+ Jari Pará Project implemented three methods of communication, aiming to guarantee access to the documents and all the other information about the Project to the communities and other actors through voice, written and virtual means. The Monitoring Guide stands out as one of the tools for dissemination, presenting activities, indicators, and practices for monitoring activities.

The results were disseminated in a virtual version where the documents related to monitoring were provided through Verra's website and website, newsletter, and Biofílica's social media, and orally from presentations about the project results during the Technical Assistance and Rural Extension (TARE) process, as well as, it is planned that the results will be disseminated to the communities in a more didactic way, through a summary of the Monitoring Guide and in the annual public consultations, where the results of the project will be discussed, promoting a participatory evaluation of the deliveries and suggestions, and improvement points will be raised that may be increased in the planning of the following year, ensuring the engagement of communities in the decision-making process.

4.4 Optional Criterion: Exceptional Community Benefits

Not applicable. This project is not intended to be validated for the Gold Level of this section.

5 BIODIVERSITY

5.1 Net Positive Biodiversity Impacts

5.1.1 Biodiversity Changes (B2.1)

Change in Biodiversity	Reducing deforestation and forest degradation				
Monitored Change	<p>During the monitored period, it was identified that the deforestation predicted in the baseline was higher than what occurred, in other words, there was a reduction in avoided and unplanned deforestation in both the project area and the leakage belt.</p>				
		Project Area		Leakage Belt	
	Year	Projected deforested area	Deforested area	Projected deforested area	Deforested area
	2018	1,306	578	2,464	257
	2019	1,399	420	2,411	678
	2020	1,394	609	2,319	288
	2021	1,547	305	2,246	415
	2022	1,615	327	2,210	167
Justification for change	<p>A total change of 7,261 ha in the Project Area and 11,650 ha in the Leakage Belt caused by deforestation was predicted in the baseline. However, according to the monitoring data in this report, the total change that occurred was 2,238 ha in the Project Area and 1,805 ha in the Leakage Belt, representing 69% and 85% less than expected, respectively.</p> <p>The consequent reduction in deforested areas also implied qualitative changes, such as the conservation and maintenance of forest integrity and existing ecological processes, reducing soil erosion, contributing to the conservation of water quality, maintaining the genetic variability of plant and animal species, important for pest and disease resilience, pollination, and climate regulation, reducing extinction risks, and conserving forest cover, which acts as a protective shield against winds and storms.</p>				
	<p>The survey of deforestation data and the verification of accuracy, via satellite images and in the field, are described in detail in the MR-VCS. In addition to monitoring forest cover using satellite images, other activities influenced the results obtained during the monitoring period: frequent patrols by the surveillance team, which strengthens the governance of the property, and greater alignment with the communities in technical assistance and rural extension activities, workshops, and training, and in improving communication channels.</p>				

Change in Biodiversity	Biodiversity Conservation
Monitored Change	The results of the biodiversity monitoring conducted in the monitored period are in the final stages of evaluation and consolidation, so the updated final data from the monitoring conducted by IFAP in the Project Zone will be included in the final version of the CCB documentation, as well as provided to the VVB.
Justification for change	As a conclusion of the biodiversity monitoring analysis, it is expected that positive impacts on biodiversity conservation will be demonstrated as a result of the actions to contain deforestation, and by carrying out activities with the communities, focusing on the sustainable use of natural resources and forest maintenance, and by the development of scientific research that results in knowledge of the local biodiversity.

5.1.2 Mitigation Actions (B2.3)

REDD+ Jari Pará Project works mainly in maintaining the habitat of the species present in the Project Zone, seeking to reduce and control the threats suffered by the biotic community present in the area. The data collected for the studies related to biodiversity, at the beginning of the project design, were satisfactory in the sense of evaluating the current context of biodiversity conservation in the Project Zone, surrounding area, and with a focus on the Project Area.

Given this context, in order to evaluate the variations that occur in the biotic community throughout the forest modifications, a partnership was signed with the Federal Institute of Amapá (IFAP) that will carry out frequent monitoring of fauna and flora in the region, at the time of completion of this draft, the analysis of monitoring campaigns carried out were not completed. However, the results obtained, as well as the analysis of potential impacts caused to local biodiversity, key species for conservation (triggers), and high conservation value attributes (HCVs), will be included in the final documentation of the report and will be provided to the VVB.

Additionally, to mitigate negative impacts on biodiversity and maintain or improve the High Conservation Value Attributes in the Savanna area (HCVA 3 - Rare Ecosystems and Habitats) and the spring (HCVA 4 - Environmental Services and HCVA 5 - Needs of Local People), monitoring was carried out by the Fundação Jari Security Team. The ongoing monitoring of these areas allows not only monitoring of the environmental characteristics over time, but also the inhibition of predatory and illegal activities within the delimited perimeters.

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

The activities proposed by REDD+ Jari Pará Project seek to generate several benefits for the climate, communities and biodiversity. The main benefits generated for biodiversity are linked to the reduction of deforestation and forest degradation and conservation of biodiversity and habitats.

The implementation of the Project's activities directly and positively impacts biodiversity, acting to maintain vegetation cover and conserve biodiversity, since it acts directly against habitat loss and fragmentation of local vegetation cover. These positive impacts stem mainly from avoided deforestation, deforestation and biodiversity monitoring, technical and rural extension assistance, and environmental education workshops.

The area deforested between 2018 and 2022 in the project area was 69% less than predicted in the baseline scenario. In the Leakage Belt, an area also belonging to the Grupo Jari, the reduction was 85%. Deforestation not only directly reduces the number of plant specimens, including endangered species, but also threatens the diversity of fauna through habitat loss and degradation. Most animal species have a close and specific relationship with their environment, and habitat loss can lead to the extinction not only of species directly dependent on that environment, but also of species related to it, causing a cascading effect. Habitat loss, degradation, and fragmentation can also lead to the edge effect, the dominance of invasive species, and increased susceptibility to the effects of climate change. All these effects combined would boost the extinction process of more sensitive and endemic species.

In this sense, the main conclusion of the biodiversity monitoring is expected to be positive results, showing that all the negative impacts not generated to the ecosystem are considered as benefits generated or at least maintained by the Project.

Other socio-environmental actions developed by the Project are reflected in positive impacts on biodiversity (and consequently on less deforestation), such as the donation of seedlings, setting up demonstration units, environmental education workshops, and technical assistance and rural extension, mostly carried out by the Fundação Jari, all these activities are addressed throughout this Monitoring Report in other sections.

Therefore, the project expects to demonstrate several positive impacts generated and/or maintained related to biodiversity that go beyond reducing deforestation and forest degradation within the Project Area, encompassing all the indirect positive impacts related both to reducing deforestation and strengthening the socio-environmental component.

5.1.4 High Conservation Values Protected (B2.4)

The Project area has two High Conservation Value Areas, both areas are monitored according to the Land Surveillance Procedure of the Grupo Jari, prescribes the conditions of patrolling on the lands of the Jari Celulose, Papel e Embalagens S/A by road and river.

One of them corresponds to an area of 212.6 hectares of Savanna, which was identified as being of exceptional importance due to its small size in a landscape dominated by dense ombrophilous forests, classified as HCVA 3 (forest areas that contain or are contained in rare, threatened, or endangered ecosystems).

To guarantee the maintenance and improvement of the natural characteristics of the Savanna ecosystem identified within the project area, the conservation area is monitored by the Grupo Jari Security

Team. On-site monitoring took place in 2017, and remote monitoring by high-resolution satellite images is ongoing to ensure that no deforestation has occurred in the area (Figure 16).

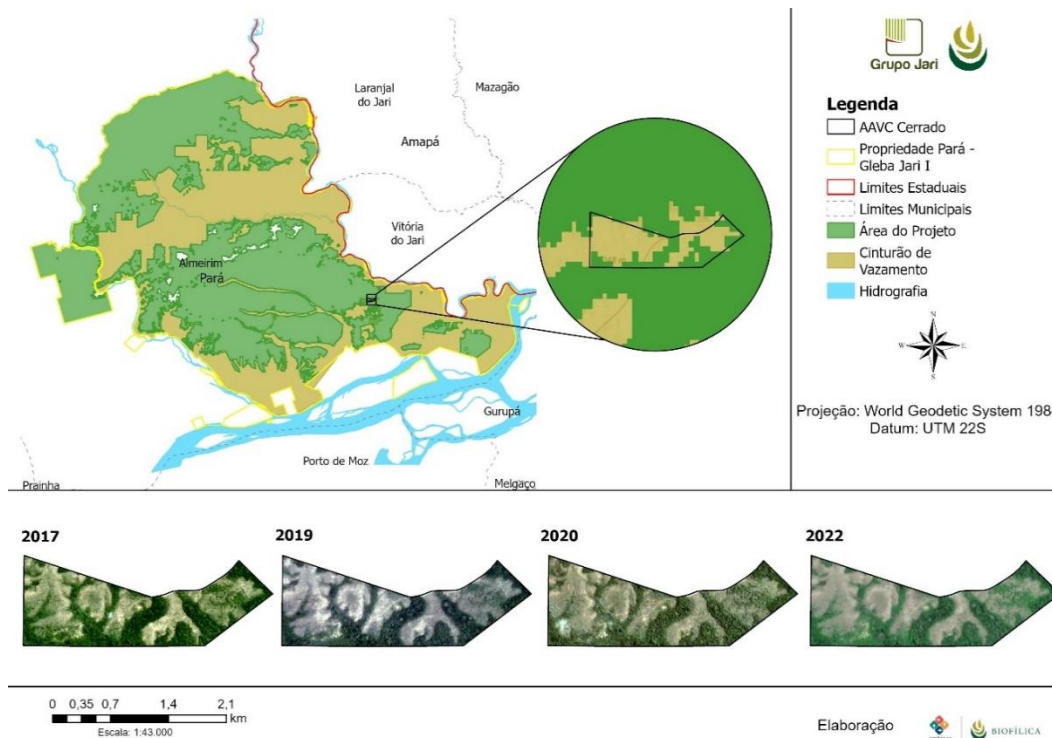


Figure 16. HCVA Savanna Monitoring for 2017, 2019, 2020, and 2022.

The other HCVA identified in the Project area is a spring located near the Vila do Planalto, which provides a fundamental resource for the needs of the local community (HCVA 5) and is in a critical situation (HCVA 4), with compromised integrity due to the intense process of chemical weathering favored by the slope of the terrain and very concentrated rainfall events.

Specifically in the Vila Planalto spring, the following items are observed: erosion, landslides, deforestation, invasion, forest fire outbreaks, coffin making, wood removal, odor, and water coloration. The monitoring of the area is carried out through inspections to check the structural integrity of the habitat around the spring, also by the Grupo Jari Security Team. During the monitoring period two to three inspections per year were performed, except for 2020, when the area was not monitored in loco due to financial problems faced by the Group, resulting in the unavailability of a vehicle to carry out the inspections. The location of the source is shown in Figure 17.

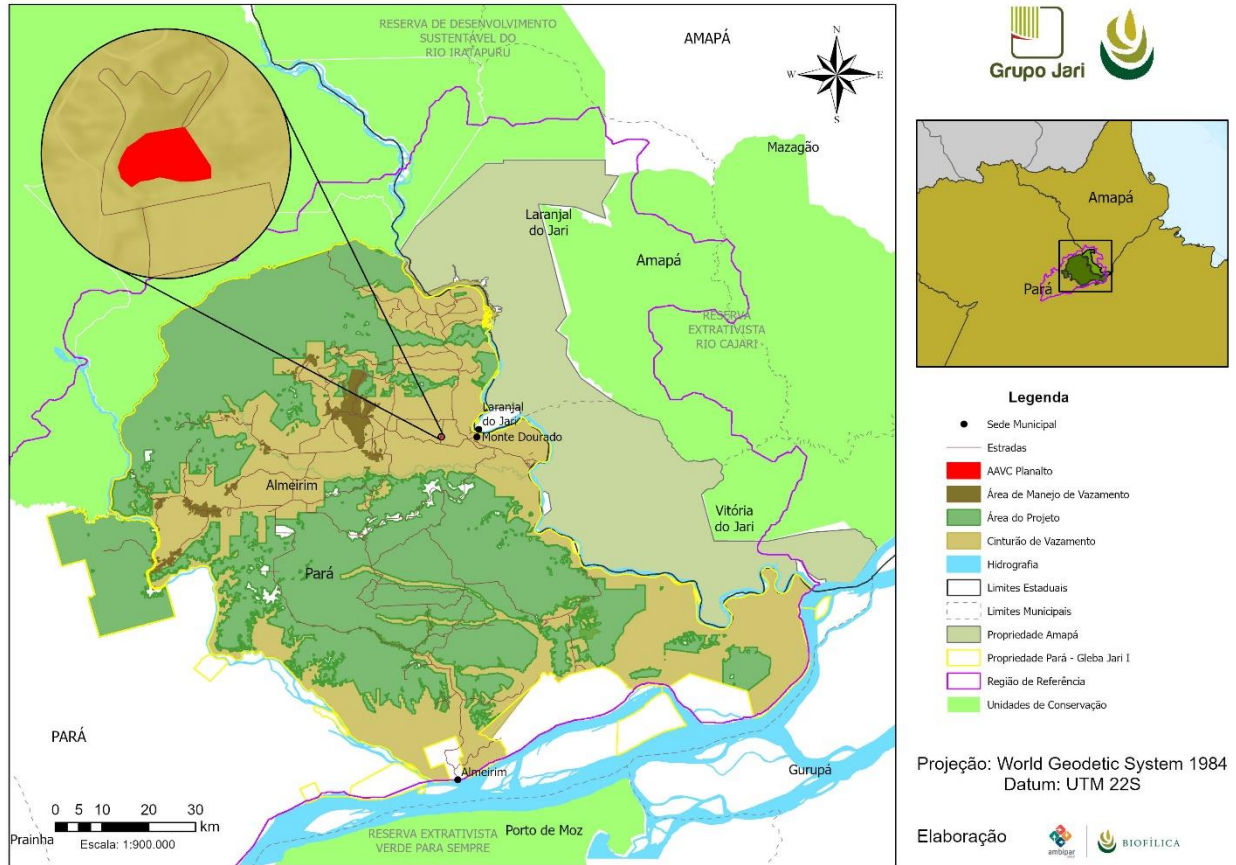


Figure 17. Location of the HCVA Planalto Springs.

It is highlighted that Grupo Jari recognizes the right of local communities to own and use timber and non-timber forest resources for subsistence purposes, if it does not characterize an illegal activity. These are allowed:

- Community extractivism of the residents of the local communities identified in the Grupo Jari operating areas.
- Non-predatory hunting and fishing for subsistence of the local communities;
- Controlled access by authorized persons (employees, authorized visitors accompanied by employees, and researchers).
- Forest inventories, with the installation of permanent plots for monitoring purposes.
- Research related to flora and fauna monitoring and study activities.
- Location of ecological trails;
- And other activities that do not affect the environmental attributes of these areas.

5.1.5 Invasive Species (B2.5)

Although the project encourages the use of native species by rural communities, such as Brazil nuts, açai, cassava, cupuaçu, among others, some non-native species are used by farming families, such as corn, rice, watermelon, and beans. These agricultural species are food species domesticated worldwide and were introduced in the region during the last century (not due to the project's activities) and are an important source of food and income for rural and urban communities in the region, besides being part of the local culture. Widely cultivated in other regions of Brazil, these species are not recognized as threatening any native species.

Additionally, agricultural species cited are globally domesticated and are not listed as invasive species by the IUCN Global Invasive Species Program. Therefore, they do not represent a direct threat to natural ecosystems, being species that need cultural treatments performed by man, such as soil management, irrigation, and weed control. Furthermore, these species are not adapted to the climatic conditions of the Amazon region and have been cultivated in the region for hundreds of years without any invasive characteristic being detected.

The use of these species is justified both by the importance they provide to the communities, as sources of food and income, and by the low risk of causing negative impacts on native species and/or introducing and facilitating the dispersion of diseases. Furthermore, it is important to point out that the areas where these species are cultivated are not located in forest areas, or even, forest degradation activities are not supported for the implementation of these crops. The project promotes their planting in already degraded areas, which are now managed by family farmers.

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

As mentioned before (Section 5.1.5 - Invasive Species), REDD+ Jari Pará Project encourages the use of native species by local communities. In addition, the main agricultural crops and source of income for the producers served by the Project are based on the development and production of native species (Brazil nut, açai, cassava flour, cupuaçu, and so on).

It is noted that the few non-native species that are used by local communities are used on a small scale and do not have an adverse impact on the environment. Again, citing the text above, these species have been cultivated for years, are part of the cultural history of the region and serve as a source of subsistence for these communities, and are not encouraged for use by the REDD+ Jari Pará Project

Furthermore, to increase food security, the income of small farmers, and the sustainability and diversification of food production systems (and consequently reduce dependence on forest resources such as timber and game), the Project has been working with farmers through Agroforestry Systems. Some exotic species, including those produced and donated by the Grupo Jari Nursery, are planted in these SAFs, such as mango, orange and lemon trees. It is important to stress that these exotic species are not grown in the forests of the Project Area, but in previously degraded areas occupied by farming families.

5.1.7 GMO Exclusion (B2.7)

Through the REDD+ Jari Pará Project, was guaranteed that no Genetically Modified Organism (GMO) was used. It is also guaranteed that the seeds and seedlings of forest and agricultural species provided to the communities are not GMOs. The reduction or removal of greenhouse gas emissions will be achieved by reducing deforestation and forest degradation.

The Fundação Jari, in the rural technical assistance role it plays in the Project region, neither recommends nor encourages the use of genetically modified species. Only pure species were distributed during this monitoring period, or in the case of species developed by Embrapa, genetically improved (unmodified) species: *Banana BRS Conquista*, *Banana Pacová (Terra Maranhão)*, *Banana Pacovan Ken*, *Banana Anã Prata*, *Cupuaçu BRS Carimbó*, and *Açaí BRS Pará*.

In addition to the fact that no seedlings or seeds of genetically modified species (either forest or agricultural) were distributed during this monitoring period, it is also not within the Project's scope to encourage, produce, or donate GMO seedlings and/or seeds in the coming years of the Project.

5.1.8 Inputs Justification (B2.8)

The main fertilizer used in the Project was organic compost. Besides avoiding the anaerobic decomposition of organic waste available on rural properties (such as manure and straw), greenhouse gas emissions and water contamination, if well conducted, organic compost results in an organic fertilizer of excellent quality, with ideal rates of carbon and nitrogen

Chemical fertilizers were used minimally, with their recommendations based on the soil analyses performed and focused on each type of productive system developed by the producers. In addition, the recommended fertilization did not contain nitrogen in the formulation, this nutrient being supplied through organic compost, as mentioned in the table below.

Therefore, it was possible to avoid adverse effects, such as pollution, greenhouse gas emissions, and eutrophication of water bodies and groundwater.

Name	Organic Compound
Justification for Use	The composting process, when properly carried out, provides an organic fertilizer of remarkable quality, with ideal rates of carbon and nitrogen, and prevents the anaerobic decomposition of organic waste available on farms, such as haystacks and manure, from emitting greenhouse gases and polluting the water.
Potential Adverse Effect	Unknown

5.2 Offsite Biodiversity Impacts

5.2.1 Negative Offsite Biodiversity Impacts (B3.1) and Mitigation Actions (B3.2)

As expected, at the time of writing this report, no negative impacts on biodiversity outside the Project Zone caused by the activities developed were detected, just as no leaks were detected during the monitored period, thus the table suggested for this section with the negative impacts on biodiversity outside the Project Zone and mitigation actions was not filled in.

This absence of negative impacts derives mainly from the fact that the Project Zone is surrounded by protected areas (Conservation Units) and, by the social activities carried out are designed to mitigate possible leakages that may occur, keeping people in the field and in harmony with the forest, and these actions were explained in sections 4.1.3 and 4.3.1. The main impacts observed on external biodiversity were the maintenance of the Project Area and Zone as an ecological corridor and as a buffer zone for risks and threats to the mosaic of protected areas in northern Pará state.

5.2.2 Net Offsite Biodiversity Benefits (B3.3)

As mentioned in the section above, at the time of writing this report, no negative impacts on biodiversity in the Project Zone caused by the activities were detected, just as no leaks were detected. Therefore, mitigating actions were not necessary; however, the activities of forest cover monitoring by satellite images, frequent patrols by the security team, strengthening the governance of the property and seeking minimum impact on biodiversity, the improvement of communication channels with other stakeholders, and greater alignment with local communities in technical assistance and rural extension activities, workshops, and training, focusing on sustainable use of natural resources and forest maintenance, promoting the conservation of biodiversity in the region.

The impacts generated by these activities have promoted the conservation of biodiversity in the area that serves as an ecological corridor for the Conservation Units in the region, as shown in the biodiversity monitoring carried out during the monitored period. This connectivity between fragments constitutes a large and resilient conservation system, making significant improvements in the quality of life of local populations and functioning as a buffer zone from risks and threats to the mosaic of protected areas in the Vale do Jari.

5.3 Biodiversity Impact Monitoring

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

A fundamental tool, biodiversity monitoring makes it possible to measure the impacts of possible activities caused by the Project on biodiversity, allowing relevant adjustments and repairs to be made in the pursuit of the desired objectives.

For the REDD+ Jari Pará Project, Biodiversity monitoring was carried out from the consolidation of the partnership between Fundação Jari and IFAP, and encompasses the following main actions encourage the involvement of students, IFAP teachers and the community in general in research and extension activities in the Vale do Jari region, develop research, extension and training activities in the Vale do Jari communities, conduct the study of tree vegetation dynamics, map and monitor significant tree species for communities such as the Amazon nut, andiroba and copaiba in management areas, conduct the phytosociological study of tree vegetation; carry out a study of the richness and diversity of flora, fauna and avifauna, the number of taxa monitored, identify High Conservation Value Areas - HCVA, carry out the joint publication of scientific articles with data from the region, carry out the implementation of permanent plots to conduct studies on the richness of the plant and animal community, carry out the fauna study with the identification of endangered species with the updating of the status of relevant species on the IUCN red list of threatened species, and carry out frequent scientific expeditions to survey the biodiversity in the region.

It is worth highlight that the REDD+ Jari Pará Project is in a strategic conservation region - between several Conservation Units (of Full Protection and Sustainable Use), often making up the buffer zone and establishing a forest connection between UCs. Therefore, the region where the REDD+ Jari Pará Project is located has a rich biodiversity and the occurrence of a significant number of species, besides being extended by various forest phytophysiognomies, which contribute to the increase of local biodiversity.

The monitoring plan developed during the monitoring period aims to improve knowledge about the biota of the region, according to the needs and demands of the CCB standards, to maintain the local richness and threatened species that are key to the Gold Level and the high conservation value attributes (HCVs). For the fauna, campaigns were planned to follow the periods of low and high rainfall, to assess the seasonal dynamics of the species, starting in 2022. For the flora, the permanent plots implemented during the project design period were revisited, with remediation every five years, to assess forest dynamics (recruitment rates, mortality, species replacement) and variations in carbon stock, the first re-evaluation was carried out in 2022.

The work in partnership with IFAP aims to develop, for the region, a systematized database with all the data so far collected in the forests of Grupo Jari, with its frequent updating after new field campaigns are carried out. This database will serve as a subsidy for various programs of a socio-environmental nature, as well as guidelines for sustainable actions. In the table below are the biodiversity monitoring proposals for the REDD+ Jari Pará Project, with the definition of periodicity, purpose, indicators, and positive impacts caused by the Project, these proposals will be updated after the consolidation of the monitoring report that is being prepared by IFAP.

Monitoring	Frequency (systematic campaigns)	Purpose	Impacts (Positive implication)	Indicators
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Flora	Once in 5 years	Assessment of structure and composition	Maintenance of forest integrity	<ul style="list-style-type: none"> - Richness (number of species); - Recruiting and mortality.
Birds	Twice per year	Assessment of richness and composition	Biodiversity Conservation	<ul style="list-style-type: none"> - Accumulation curve; - Richness (number of species); - Abundance of sensitive species; - Abundance of species dependent on forest environments.
Mammals	Twice per year	Assessment of richness and composition	Biodiversity Conservation	<ul style="list-style-type: none"> - Accumulation curve; - Richness (number of species); - Composition; - Frequency of occurrence.
Vulnerable Species (VU)	Twice per year	Conservation of key species	Maintenance of Gold Level	<ul style="list-style-type: none"> - Presence of >10 pairs or 30 individuals of peccaries (<i>Tayassu pecari</i>); - Presence of >10 pairs or 30 individuals of poranga (<i>Crax alector</i>)*.
Endangered (EN) or Critically Endangered (CR) species	Twice per year	Conservation of key species	Maintenance of Gold Level	<ul style="list-style-type: none"> - Presence of black bearded saki (<i>Chiropotes satanas</i>)*; - Presence of giant otters (<i>Pteronura brasiliensis</i>)*
Attributes of the HCVA in savanna	One every 5 years (flora) and 2 annually (fauna)	Maintenance of the HCVA's	Maintenance of rare ecosystem	<ul style="list-style-type: none"> - Indicators of flora, avifauna, mammal fauna and herpetofauna cited above - Presence of endangered species.

In addition to the monitoring plan portrayed above, the partnership with IFAP also aims to implement a participatory monitoring program, in which some community residents are selected and trained to collect information in the region. Information about the presence of endemic and endangered species and the presence of invasive alien species, as well as an increase or decrease in observations, can be produced by the community. This possibility will be evaluated after the analysis of results is completed, when IFAP will conduct feedback with the community and the implementation plan for this activity will be developed; this action is planned to start in 2023. The indicators included as results of the fauna and flora monitoring will be incorporated in the final version of this report and will be provided to the VVB.

HCVA Monitoring

The detailed description of this activity, as well as the results found are in item 5.1.4 of this RM. Below is the evaluation of the monitored indicator.

Data/Parameter	HCVA from Savanna
Data unit	Number
Data source	Satellite images and on-site monitoring
Description of the means of measurement and procedures to be applied	On-site monitoring was conducted in 2017, in subsequent years monitoring was conducted via high-resolution satellite imagery
Monitoring/recording frequency	Once every 5 years (flora) and twice a year (fauna)
Monitored amount	Area with preserved characteristics
Calculation method	Checking the condition of the area by satellite image
Comments	

Use of Genetically Modified Organisms (GMOs)

The detailed description of this activity, as well as the results found are in item 5.1.7 of this RM. Below is the evaluation of the monitored indicator.

Data/Parameter	Use of Genetically Modified Organisms (GMOs)													
Data unit	Number													
Data source	The use or non-use of GMOs was gauged by the reports from Fundação Jari. The method consisted of searching for the presence and/or absence of use in the Fundação Jari reports and also in the seedling donation lists.													
Description of the means of measurement and procedures to be applied	Activity report													
Monitoring/recording frequency	Annually													
Monitored amount	<table border="1"> <thead> <tr> <th>Year</th> <th>Use</th> </tr> </thead> <tbody> <tr> <td>2018</td> <td>Absent</td> </tr> <tr> <td>2019</td> <td>Absent</td> </tr> <tr> <td>2020</td> <td>Absent</td> </tr> <tr> <td>2021</td> <td>Absent</td> </tr> <tr> <td>2022</td> <td>Absent</td> </tr> </tbody> </table>		Year	Use	2018	Absent	2019	Absent	2020	Absent	2021	Absent	2022	Absent
Year	Use													
2018	Absent													
2019	Absent													
2020	Absent													
2021	Absent													
2022	Absent													
Calculation method	Identifying GMO use information in the reports.													
Comments														

Use of chemical pesticides, biological control agents or other types of inputs

The detailed description of this activity, as well as the results found are in item 5.1.8 of this RM. Below is the evaluation of the monitored indicator.

Data/Parameter	Use of chemical pesticides, biological control agents or other types of inputs												
Data unit	Number												
Data source	Activity report												
Description of the means of measurement and procedures to be applied	The use or non-use of chemical pesticides, biological control agents, or other types of inputs was measured by Fundação Jari. The method consisted of looking for the presence and/or absence of use in the Fundação Jari reports.												
Monitoring/recording frequency	Annually												
Monitored amount	<table border="1"> <thead> <tr> <th>Year</th> <th>Use</th> </tr> </thead> <tbody> <tr> <td>2018</td> <td>Present</td> </tr> <tr> <td>2019</td> <td>Present</td> </tr> <tr> <td>2020</td> <td>Present</td> </tr> <tr> <td>2021</td> <td>Present</td> </tr> <tr> <td>2022</td> <td>Present</td> </tr> </tbody> </table>	Year	Use	2018	Present	2019	Present	2020	Present	2021	Present	2022	Present
Year	Use												
2018	Present												
2019	Present												
2020	Present												
2021	Present												
2022	Present												
Calculation method	Identification of information of the use of biological control agents or other types of inputs in the reports.												
Comments													

5.3.2 Biodiversity Monitoring Plan Dissemination (B4.3)

As already described in item 2.3.1, the REDD+ Jari Pará Project implemented three methods of communication, aiming to guarantee access to the documents and all the other information about the Project to the communities and other actors through voice, written and virtual means. The Monitoring Guide stands out as one of the tools for dissemination, presenting activities, indicators, and practices for monitoring activities.

The results were disseminated in a virtual version where the documents related to monitoring were provided through Verra's website and website, newsletter, and Biofílica's social media, and orally from presentations about the project results during the Technical Assistance and Rural Extension (TARE) process, as well as, it is planned that the results will be disseminated to the communities in a more didactic way, through a summary of the Monitoring Guide and in the annual public consultations, where the results of the project will be discussed, promoting a participatory evaluation of the deliveries and suggestions, and improvement points will be raised that may be increased in the planning of the following year, ensuring the engagement of communities in the decision-making process.

5.4 Optional Criterion: Exceptional Biodiversity Benefits

5.4.1 Trigger Species Population Trends (GL3.3)

The results of the biodiversity monitoring conducted in the monitored period are in the final stages of evaluation and consolidation, so the updated final data from the monitoring conducted by IFAP in the Project Zone will be included in the final version of the CCB documentation, as well as provided to the VVB. The main type of triggers identified by the REDD+ Project are listed below, their description in the current project scenario will be updated upon receipt of the final monitoring data. Additionally, this list may be updated, depending on the fauna and flora species identified during the monitoring conducted.

Type of trigger	<i>Chiropotes satanas</i>
With-project scenario	In the REDD+ Jari Pará Project, which projects the mitigation and reduction of deforestation and forest degradation, intends to minimize habitat loss and consequently improve biodiversity conservation. In addition, the project promotes research that also helps in the identification and conservation of these environments. Therefore, it is expected that the Project will improve the trend of the population of <i>Chiropotes satanas</i> .
Type of trigger	<i>Pteronura brasiliensis</i>
With-project scenario	In the REDD+ Jari Pará Project, which projects the mitigation and reduction of deforestation and forest degradation, intends to minimize habitat loss and consequently improve biodiversity conservation. In addition, the project promotes research that also helps in the identification and conservation of these environments. Therefore, it is expected that the Project will improve the trend of the population of <i>Pteronura brasiliensis</i> .
Type of trigger	<i>Tayassu pecari</i>
With-project scenario	In the REDD+ Jari Pará Project, which projects the mitigation and reduction of deforestation and forest degradation, intends to minimize habitat loss and consequently improve biodiversity conservation. In addition, the project promotes research that also helps in the identification and conservation of these environments. Therefore, it is expected that the Project will improve the trend of the population of <i>Tayassu pecari</i> .
Type of trigger	<i>Crax alector</i>
With-project scenario	In the REDD+ Jari Pará Project, which projects the mitigation and reduction of deforestation and forest degradation, intends to minimize habitat loss and consequently improve biodiversity conservation. In addition, the project promotes research that also helps in the identification and conservation of these environments. Therefore, it is expected that the Project will improve the trend of the population of <i>Crax alector</i> .

5.4.2 Effectiveness of Threat Reduction Actions (GL3.4)

The results of the biodiversity monitoring conducted in the monitored period are in the final stages of evaluation and consolidation, so the updated final data from the monitoring conducted by IFAP in the Project Zone will be included in the final version of the CCB documentation, as well as provided to the VVB.

6 ADDITIONAL PROJECT IMPLEMENTATION INFORMATION

Not applied For the preparation of the draft no additional project implementation information needed to be presented was gathered. For the final documentation, if necessary, additional data will be incorporated.

7 ADDITIONAL PROJECT IMPACT INFORMATION

Not applied. For the preparation of the draft, no additional project impact information needed to be presented was gathered. For the final documentation, if necessary, additional data will be incorporated.

APPENDICES

Appendix 1: Project Risks Table

The potential risks identified for the project during the monitored period are described below, complementary to the data in section 2.1.4, as well as the mitigation measures developed by the bidders to prevent their occurrence.

Identify Risk	Potential impact of risk on climate, community and/or biodiversity benefits	Actions needed to mitigate the risk
1	Lack of interest from stakeholders in participating in project activities, especially communities and public agencies	Strengthening and encouragement for greater involvement of all parties involved in the design and decision-making processes regarding the Project's activities through Public Consultations, listening and dialogue carried out mainly by TARE visits, being this a space for consultation, complaints and suggestions for the stakeholders and in the improvement and dissemination of existing communication and open dialogue tools among the actors involved, such as Internal Ombudsman, Information Channels, Feedback System and complaint redress procedures.
2	Market risk - Difficulty in trading the verified carbon credits	Biofíllica has a revenue department, with commercial, marketing, communication and market intelligence teams, responsible exclusively for developing materials to promote the project, participating in national and international events related to REDD+ and carbon markets in order to publicize the project, establish and expand the network of business contacts with potential buyers of carbon credits to be made in the best possible prices that ensure the financial sustainability of the Project and Biofíllica. The commercial team has professionals that are divided to serve national and international clients, who deliver the credits to companies and institutions committed to the effective conservation of their areas and the co-benefits to communities and biodiversity. Also, Biofíllica is always looking for funding alternatives, such as donations and partnerships for direct implementation of project activities (not necessarily linked to the sale of credits).
3	Migration of the population into the project area in search of the benefits generated during the execution of activities, potentially increasing the demand on natural resources.	The first activity that prevents the migration and/or invasion of the population in the project area is the territorial patrols and surveillance carried out by Grupo Jari team, who were able to identify possible new cases of invasion and deforestation, acting effectively with denunciations to the responsible agencies. In addition, Grupo Jari, mainly Fundação Jari works by applying conflict management procedures to prevent and manage in the best way possible invasions that may occur in the area. This work is handled by the Intersectoral Conflict Mediation Center, which was

Identify Risk	Potential impact of risk on climate, community and/or biodiversity benefits	Actions needed to mitigate the risk
		<p>created as a peace-building tool for rural communities, working on two fronts: mediation focused on land ownership rights, and mediation focused on land use rights. In addition to the Fundação Jari, these actions are backed by the following institutions Military Police, Monte Dourado District Agency, Rural Workers' Trade Union, Community Safety Council, Public Prosecutor's Office and Civil Registry. Additionally, community members located in the project area are engaged with Fundação Jari to report any invasions that may occur in their neighborhood.</p> <p>Finally, for new families and/or communities to participate in the project, it is necessary that those interested adhere to it by means of a Term of Adhesion, where the individual or family must agree to keep the forest areas on their property standing, through the sustainable use of the soil and the forest and respecting the legislation of the forest code in effect.</p>
4	<p>Increased pressure from deforestation agents with illegal logging activities.</p>	<p>The main activities carried out to mitigate this risk were related to improving and enhancing the surveillance of the property, as well as its infrastructure (by hiring high-resolution satellite images and investing in staff) and the coordination of the Fundação Jari with environmental agencies (ICMBio and IBAMA) to identify and fine violators, working on joint actions to prevent informal settlers in the area.</p>
5	<p>Lack of alignment among the parties for decision-making and distribution of resources to be invested in activities.</p>	<p>Due to the absence of the Technical Chamber activity, measures were taken to mitigate these risks, highlighted below: TARE's services as a focal point for communication with community members is an important opportunity for exchange, where community members are informed about the Project's actions and to make request regarding their demands, which were forwarded to the Fundação Jari; carrying out Workshops and lectures as a space for exchange open to stakeholders, where the results of the Project activities were presented; Holding meetings between proponents and other institutions whenever necessary, and an important tool created in 2022 was the newsletter Jari News, that presents to all those involved more directly in the Project's activities (Biofílica, Fundação Jari, Grupo Jari, and IFAP) its weekly evolution. In addition to the strategies highlighted, there are several communication channels active and available for the exchange of information between stakeholders.</p>