



# SOCIALCARBON®

## Fazenda J. Crestani Conservation Project 1<sup>st</sup> Monitoring Report



Document Prepared by Vert Ecotech S/A

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# 1. Project Details

## 1.1 Summary Description of the Implementation Status of the Project

In the matter of the methodology applied related to conservation of native formations in Fazenda J. Crestani (SCM0003), which started on 30-September-2020 – when the beginning of improvements implementation developed by the property owner in order to promote the environmental protection, to 31-December-2023, it is found that it is currently under full operation. All planned activities are already underway, with different periodic frequencies. For this project activity, a total of 130,353 tCO<sub>2</sub>e has been removed for the period under review (from 30-September-2020 to 31-December-2023), average of 32,588 tCO<sub>2</sub>e per year, considering the determined non-permanence risk of 22%, in a project area of 3,747.59 hectares, that pertains to the Legal Reserve area of 3,751.8721 hectares, within Fazenda J. Crestani property, of 4,679.1632 hectares. According to PDD v.12, the contribution of this project is expected to be 401,887 tCO<sub>2</sub>e in carbon removals over the 10-year project lifetime (from 30-September-2020 to 29-September-2030), with an annual average of 40,188 tCO<sub>2</sub>e.

Remote and permanent monitoring for fire and deforestation – which began on 2023, after the project was formalized and listed on the platform for generating carbon credits – reported no fire incidents, though firefighting equipment and PPE were made available at Fazenda Palmasola headquarters, Fazenda J. Crestani neighbour stakeholder and owned by the same property owner group. A partnership with the Quiron platform enabled remote monitoring, with frequent reports to anticipate (prediction) fire outbreaks during the year, allowing for timely action by the farm manager. Biodiversity monitoring has been implemented since the project's start date through sightings of animals and recordings made by the staff/stakeholders, and during visits from the project team along 2023. A more comprehensive biodiversity monitoring plan is set to begin in 2024.

The sustainability aspects of the project have shown varied progress across different dimensions, reflecting the distinct challenges and advancements experienced over time. Social improvements were mainly driven by enhanced stakeholder relations, although many social initiatives remain in the planning stage, with actions and responsibilities defined in partnership with the NGO Instituto Homem Pantaneiro. The project is compliant with all human, social, and economic safeguards, with the landowner providing all required documents. Improvements in vegetation preservation, education and health awareness were observed locally.

## 1.2 Sectoral Scope and Project Type

This project is registered under the SOCIALCARBON Standard as an Agriculture, Forestry and Other Land Use – AFOLU project, Scope 14, category Afforestation, Reforestation and Revegetation (ARR). It was developed in compliance with the SOCIALCARBON Methodology SCM0003 “Methodology for Carbon Removal in Private Conservation Areas” v1.0. This project is a non-grouped small-scale project with single project activity.

## 1.3 Project Proponent

<b>Organisation name</b>	Vert Ecotech S/A
<b>Contact person</b>	André Luiz Jardini Munhoz Alexandre Chiachiri Rodrigues Silva André Nogueira Bozza
<b>Title</b>	André Luiz Jardini Munhoz – CSO Alexandre Chiachiri Rodrigues Silva – CEO André Nogueira Bozza – Project Manager
<b>Address</b>	Av. José Rocha Bomfim, 214 (room 132 – ed. Frankfurt), Jardim Santa Genebra, Campinas, São Paulo (SP), Brazil
<b>Telephone</b>	+55 (19) 97406-1426
<b>Email</b>	jardini@vertecotech.com

## 1.4 Other Entities Involved in the Project

<b>Organisation name</b>	AUGUSTA AGROPECUARIA LTDA
<b>Role</b>	Property owner
<b>Contact person</b>	Fernando José Maggioni
<b>Title</b>	Fazenda J. Crestani manager
<b>Address</b>	Av. Magda de Cássia Pissinatti, 501, apt 204, Bairro Residencial Florença, SINOP/MT, CEP: 78555-388
<b>Telephone</b>	+55 (65) 98150-2626
<b>Email</b>	fernandomaggioni@hotmail.com

<b>Organisation name</b>	Instituto Homem Pantaneiro (IHP)
<b>Role</b>	Beneficiary (Benefit-sharing)
<b>Contact person</b>	Angelo Rabelo
<b>Title</b>	Angelo Rabelo – CEO
<b>Address</b>	Ladeira José Bonifácio, 171 – Porto Geral, Corumbá 79300-010
<b>Telephone</b>	+55 67 3232-3303
<b>Email</b>	faleconosco@institutohomempantaneiro.org.br

## 1.5 Project Start Date

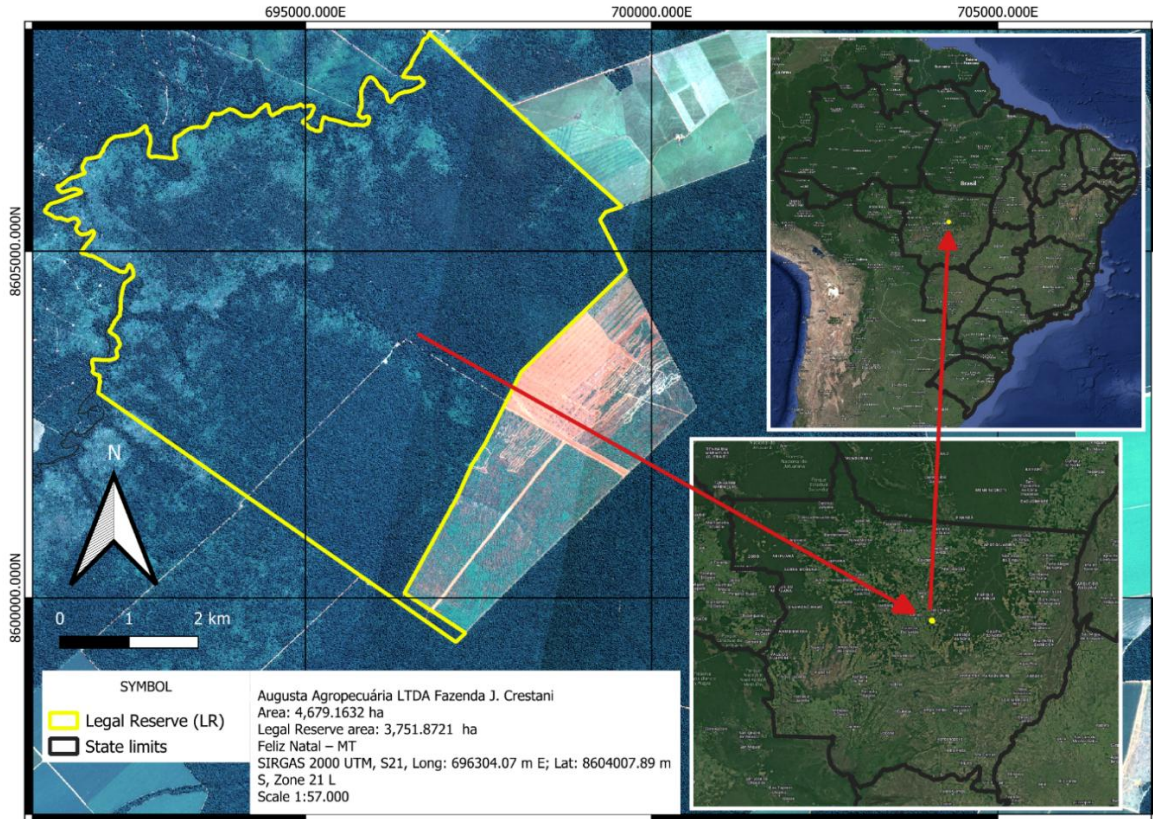
The start date for this project was 30-September-2020. This year marked the beginning of improvements implementation developed by the property owner in order to promote the environmental protection (see Section 3.1 Implementation Status of the Activity of this MR), after anthropic environmental impacts occurred (fire events and illegal deforestation), as detailed in the PDD v. 12, validated and certified version, Section 1.3 Project Eligibility, Section 1.8 Project Start Date and Section 1.13 Conditions Prior to Project Initiation, which implies in carbon component assurance. To reinforce the explanation of the project start date, the document Notarial Minute (Ata Notarial) is presented in annexes. Relatively to environmental components, such as monitoring specific sustainable indicators through project lifetime, these are linked with first project's contract signing between land owner and project proponent, on 23-December-2022, attached to this report, as described in PDD v.12 Section 2.1.

## 1.6 Project Crediting Period

The project's crediting period is 10 years, from September 30th, 2020, to September 29th 2030, which may be renewable at a maximum of nine times, with a total crediting period of no more than 100 years. Fazenda J. Crestani Conservation Project Monitoring Report covers from 30-September-2020 to 31-December-2023.

## 1.7 Project Location

Fazenda J. Crestani is located in the municipality of Feliz Natal, state of Mato Grosso, Brazil. Its official total area is 4,679.1632 ha and it is fully covered by Amazon biome (IBGE, 2019). Its official Legal Reserve area is 3,751.8721 ha and the project area is 3,747.59 ha and the KML file with these boundaries is submitted separately from this document. Central geographic coordinates are: Longitude: 696304.07 m E; Latitude: 8604007.89 m S, Zone 21 L (Lat: -12.621834°; Long: -55.192739°) (Datum SIRGAS 2000 UTM Zone 21 S). An illustration of the exact location of the farm and its context within Brazil is found below. Lately in Section 5.2, different illustrations reveal the specific areas of the property that are objects of this project.



**Image 1.7-1:** Fazenda J. Crestani's project area (Legal Reserve) location and its context within Brazil's territory.

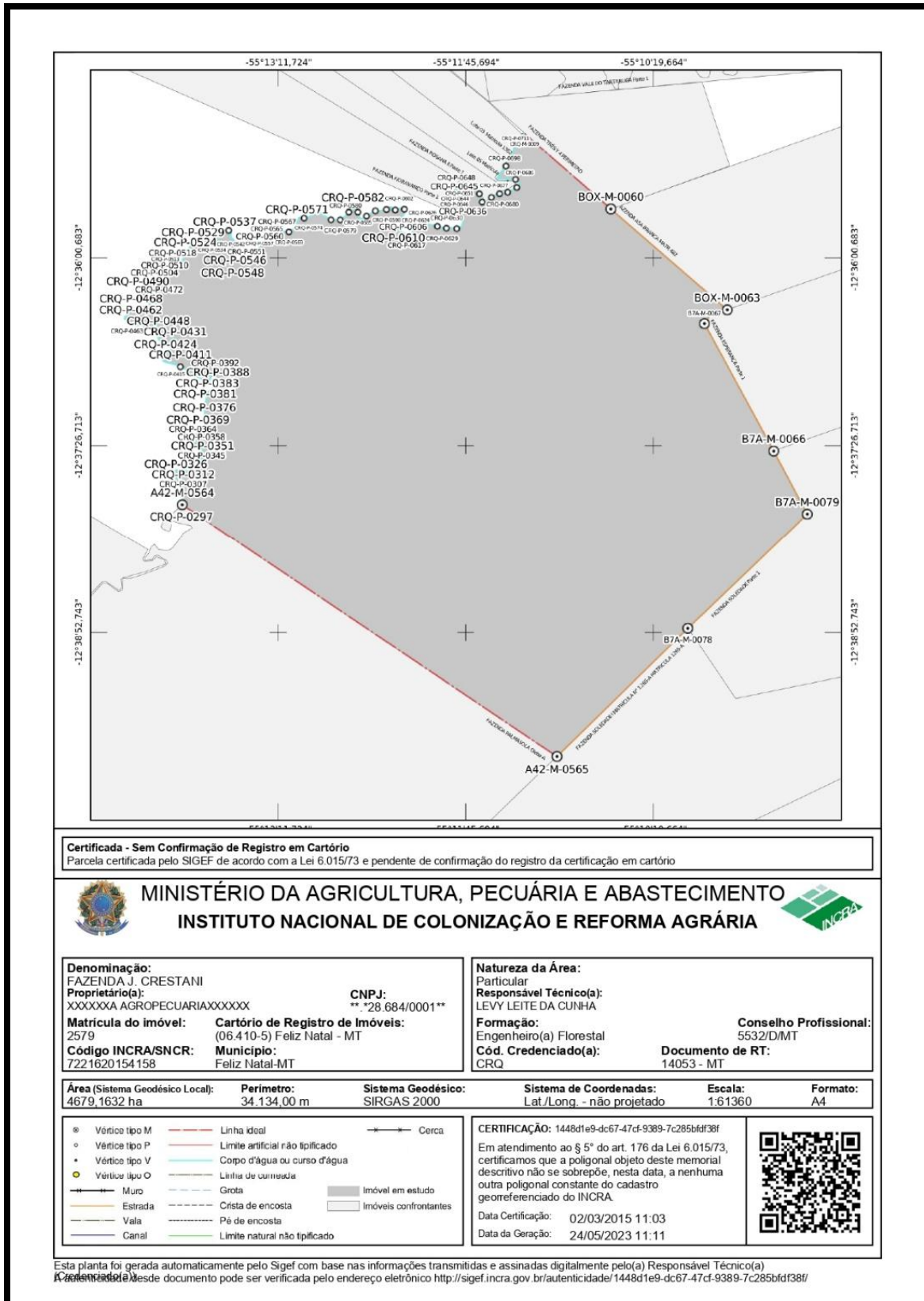


Image 1.7-2: Fazenda J. Crestani's main coordinates.

## 1.8 Title and Reference of Methodology

This project uses an official methodology approved by SOCIALCARBON and currently in force, which is named SCM0003 – Methodology for Carbon Removal in Private Conservation Areas (Version 1.0), with a release date of 08-February-2023.

This project uses the guidelines tool for the inclusion of additionality items, also approved by SOCIALCARBON, which is named SCT0001 – Tool for the demonstration and assessment of additionality in SOCIALCARBON Agriculture, Forestry and Other Land Use (AFOLU) project activities (Version 1.0), with a release date of 26-September-2022. SOCIALCARBON AFOLU Non-Permanence Risk Report (Version 1.0) and Non-Permanence Risk Calculation Tool (Version 1.1) are also part of this project development.

The indicators applied to this project were extracted from the consolidated list of approved SOCIALCARBON indicators, meaning no other indicators were required to be submitted for adaptation or approval.

## 1.9 Double Counting and Participation under Other GHG Programs

### 1.9.1 No Double Issuance

Is the project receiving or seeking credit for reductions and removals from a project activity under another GHG program?

Yes  No

### 1.9.2 Registered in Other GHG Program(s)

Is the project receiving or seeking credit for reductions and removals from a project activity under another GHG program?

Yes  No

Is the project active under the other GHG program?

Yes  No

### 1.9.3 Projects Rejected by Other GHG Program(s)

Is the project receiving or seeking credit for reductions and removals from a project activity under another GHG program?

Yes  No

## 1.10 Double Claiming, Other Forms of Credit, and Scope 3 Emissions

### 1.10.1 Emissions Trading Programs and Other Binding Limits

Are project reductions and removals or project activities also included in an emissions trading program or binding emission limit? See the SOCIALCARBON Standard Definitions for definitions of emissions trading program and binding emission limit.

Yes  No

### 1.10.2 No Double Claiming with Other Forms of Environmental Credit

Has the project activity sought, received, or is planning to receive credit from another GHG-related environmental credit system? See the SOCIALCARBON Standard Definitions for definition of GHG-related environmental credit system.

Yes  No

### 1.10.3 Supply Chain (Scope 3) Emissions

*Do the project activities specified in Section 1.12 affect the emissions footprint of any product(s) (goods or services) that are part of a supply chain?*

Yes  No

## 2. Safeguards

### 2.1 Stakeholder Engagement and Consultation

#### Stakeholders Identification

<b>Stakeholder Identification</b>	<p>Internal meetings were conducted with project specialized team to facilitate an initial mapping of the project's potential stakeholders. The context of the property area was analysed, including its usage history, location, main activities, and potential stakeholders were identified, such as the landowner of Fazenda J. Crestani, the administrator and Legal Representative of the property, neighbour employees and owners, NGOs, governmental bodies, private companies in the region, and research institutions. This identification was then refined using a matrix of influence and interest in the project, resulting in the following parties being identified as stakeholders:</p> <ul style="list-style-type: none"> <li>- AUGUSTA AGROPECUARIA LTDA (Owner of Fazenda J. Crestani);</li> <li>- Mr. Fernando José Maggioni is the farm administrator</li> <li>- Neighbour employees and owners (neighbour headquarters) Fazenda Palmasola, Fazenda Asa Branca and Fazenda Romão;</li> <li>- NGO Instituto Homem Pantaneiro (IHP);</li> <li>- SEMA-MT (Mato Grosso State Environmental Department);</li> <li>- Mato Grosso Military Fire Brigade.</li> </ul>
<b>Legal or customary tenure/access rights</b>	<p>Not applicable – the project is situated on private land, with the legal property documentation provided and attached to this report. There are no conflicts or overlaps with recognised Traditional Communities or Indigenous Peoples, as evidenced by the attached map "Fazenda J. Crestani Indigenous Context Map" which demonstrates this separation. It is correct to state that Fazenda J. Crestani is relatively isolated, being distant from urban centres or areas of significant economic or social interest, which corroborates the reduced list of stakeholders and the inapplicability of this item. There are no employees hired in the name of the property owner, but there are neighbour outsourced employees who lives within the Fazenda J. Crestani Legal Reserve - LR (project area) and works on opening the agricultural area outside the LR in the same property. They are under third party employment contracts (also attached to this report) that allow them to work in the areas of the property, including the project areas. They are temporary residents who do not use the Legal Reserve - RL (project area) as a means of subsistence, they only use some old wooden housing structures that are within the RL and that will be decommissioned in the near future. The agricultural area of the property was</p>

	<p>leased to the neighbour's property (Fazenda Palmasola), which belongs to the same family of the Fazenda J. Crestani property.</p>
<p><b>Stakeholder diversity and changes over time</b></p>	<p><u>AUGUSTA AGROPECUARIA LTDA (Owner of Fazenda J. Crestani)</u></p> <ul style="list-style-type: none"> <li>-Social and cultural diversity: The owner possesses a high socioeconomic profile, with access to superior financial and educational resources. Culturally, they have a strong connection to traditional agricultural practices and a particular interest in environmental preservation.</li> <li>-Interactions: They interact directly with the neighbour employees and owners, playing a decisive role in operations and project implementation. They are eager to collaborate with NGOs and research institutions on conservation projects in the future.</li> <li>-Changes over time: The composition of this group is stable.</li> </ul> <p><u>Employees and owners of neighbour properties</u></p> <ul style="list-style-type: none"> <li>-Social and economic diversity: This group is diverse in terms of socioeconomic backgrounds, including local and migrant workers. They have varying levels of education and skills, ranging from manual labourers to specialised technicians.</li> <li>-Interactions: Fazenda Palmasola is involved daily in property operations and interact with the owner/employees and occasionally with SEMA-MT.</li> <li>-Changes over time: The composition of the employees' group is somewhat unstable, particularly at the lower function levels, and varies depending on the seasonal work needs, which may adopt temporary hiring practices. Owners rarely changes.</li> </ul> <p><u>NGO Instituto Homem Pantaneiro (IHP)</u></p> <ul style="list-style-type: none"> <li>-Social and cultural diversity: Composed of professionals from various fields, such as biology, ecology, and social sciences. They share a strong commitment to developing socio-environmental projects.</li> <li>-Interactions: They work closely with the farm owner, employees, and governmental bodies to implement and monitor conservation projects.</li> <li>-Changes over time: The composition is stable but may vary as new projects are initiated or completed, and as new members join the organisation.</li> </ul> <p><u>SEMA-MT (Mato Grosso State Environmental Department)</u></p> <ul style="list-style-type: none"> <li>-Social and economic diversity: This group consists of public officials with diverse academic backgrounds and professional experiences in environmental management.</li> <li>-Interactions: They maintain a regulatory relationship with the property owner, ensuring that all activities comply with environmental laws.</li> </ul>

	<p>-Changes over time: The composition can change with alterations in public policies and government changes.</p> <p><u>Mato Grosso Military Fire Brigade</u></p> <p>-Social and cultural diversity: The brigade consists of public servants with diverse backgrounds, including military training and specialised knowledge in fire prevention and emergency management. Their professional focus is primarily on safety, rescue operations, and environmental protection.</p> <p>-Interactions: They interact with the farm and other stakeholders during emergencies, particularly in fire control and environmental risk management. They also collaborate with SEMA and NGOs for preventative measures and response strategies.</p> <p>-Changes over time: The composition of this group can change due to staff rotations, promotions, or reassignments, but the institution remains a stable stakeholder throughout.</p>
<p><b>Expected changes in well-being</b></p>	<p><u>AUGUSTA AGROPECUARIA LTDA (Owner of Fazenda J. Crestani)</u></p> <p>-Changes in well-being: The owner is expected to experience increased personal satisfaction and public recognition due to their active role in environmental preservation. The implementation of the project may also increase the property value and provide economic benefits through carbon credits.</p> <p>-Ecosystem services: Improvement in soil health, water quality, and biodiversity, providing a more resilient and productive agricultural environment.</p> <p><u>Employees and owners of neighbour properties</u></p> <p>-Changes in well-being: Employees may experience better working conditions, improved infrastructure, and greater job stability due to the long-term sustainability of the project. Training in sustainable practices can enhance their skills and employability. Due to the neighbour properties owners, it can be an inspiration to develop carbon credit projects in its own areas, increasing personal satisfaction and public recognition due to their active role in environmental preservation. The implementation of the project may also increase the property value and provide economic benefits through carbon credits.</p> <p>-Ecosystem services: Improvement in the neighbour properties environmental conditions, such as microclimate stability, which promotes resilience to potential climate changes and directly benefits the health and well-being of the workers/owners.</p> <p><u>NGO Instituto Homem Pantaneiro (IHP)</u></p>

	<p>-Changes in well-being: The NGO may gain greater recognition and support for its conservation activities, strengthen partnerships, and expand its reach. Project success can attract more funding and resources.</p> <p>-Ecosystem services: Improvement in biodiversity and natural habitats, facilitating the implementation of other conservation and environmental education projects.</p> <p><u>SEMA-MT (Mato Grosso State Environmental Department)</u></p> <p>-Changes in well-being: The agency can obtain valuable data for future regulations and environmental initiatives. Project success can also boost public confidence in governmental institutions.</p> <p>-Ecosystem services: Greater protection of natural resources, such as water and vegetation, which are essentially within the agency's scope of action.</p>
<b>Location of stakeholders</b>	<p><u>AUGUSTA AGROPECUARIA LTDA (Owner of Fazenda J. Crestani)</u>                  Represented by office located at ROD MT 140, KM 42, S/N, Zona Rural, Feliz Natal, Mato Grosso, Brazil</p> <p><u>Employees and owners of neighbour properties</u>                  Permanent or temporary residents in:</p> <p><u>Fazenda Palmasola</u>                  Feliz Natal, Mato Grosso, Brazil. Longitude 690742.02 m E and Latitude 8598214.61 m S (Datum SIRGAS 2000 UTM Zone 21 S).</p> <p><u>Fazenda Romão</u>                  Feliz Natal, Mato Grosso, Brazil. Longitude 696848.43 m E and Latitude 8608134.86 m S (Datum SIRGAS 2000 UTM Zone 21 S).</p> <p><u>Fazenda Asa Branca</u>                  Feliz Natal, Mato Grosso, Brazil. Longitude 700411.49 m E and Latitude 8606633.23 m S (Datum SIRGAS 2000 UTM Zone 21 S).</p> <p><u>NGO Instituto Homem Pantaneiro (IHP)</u>                  Represented by office located at Rua Ladeira José Bonifácio, 171, Corumbá, Mato Grosso do Sul, Brazil.</p> <p>SEMA MT (Mato Grosso State Environmental Department)</p>

	<p>Represented by office located at Rua C esquina com rua F, Centro Político Administrativo CEP 78049-913 Cuiabá Mato Grosso.</p> <p>No Indigenous People (IP), Traditional Community (TC) (recognised) and customary rights holder are contemplated within this Stakeholder engagement and consultation as described before. Positive, indirect impacts from the project are expected in the areas where the NGO Instituto Homem Pantaneiro operates, which are yet to be defined, as potential funding opportunities will be mapped based on the return of benefit sharing with the institution. This information will be updated for future monitoring throughout the project. Other impacts will occur within the premises of Fazenda J. Crestani, to support families, local infrastructure, and related aspects, according to Social Indicators.</p>
<b>Location of resources</b>	<p>Not applicable – given the conditions explained earlier in this section, specific territories and resources within the property are not relevant to the stakeholders and other parties.</p>

## Stakeholder Consultation and Ongoing Communication

<b>Date of stakeholder consultation</b>	<p>Online and on-site meetings - From December 2022 to September 2023</p>
<b>Stakeholder engagement process</b>	<p>Separate meetings were scheduled with each stakeholder. Those with more substantial infrastructure and technical teams, such as AUGUSTA AGROPECUARIA LTDA, IHP, and SEMA-MT, were invited in advance to virtual meetings via email. These meetings were conducted on Google Meets, supported by presentation materials, with transcripts recorded to serve as a record of the outcomes. Meanwhile, the Fazenda Palmasola employees, directly related to the project activities development, had an in-person meeting scheduled at the dining hall, at a time agreed upon between the Fazenda J. Crestani administrator and the employees. This meeting was facilitated by the project proponent's team, using a computer for the presentation materials, and minutes were recorded to document the outcomes, along with an attendance list. All documents related to the meetings with the stakeholders are attached to this report, organised by stakeholder.</p>
<b>Consultation outcome</b>	<p>The general aspects of the project, costs and benefits, aspects and impacts, risks and emergency response plans, certification and audit processes, validation and verification, results up to the time of the presentation, grievance procedures, communication channels, and opportunities for receiving comments, feedback, etc., were presented. The presentations are attached to this report.</p>

#### AUGUSTA AGROPECUARIA LTDA (Owner of Fazenda J. Crestani)

The farm administrator maintains close involvement with the project, regularly staying in contact with the project proponent through phone calls and WhatsApp for updates and to provide guidance to the field team. He did not raise any concerns and expressed satisfaction with the initial results presented.

First Contact date: 23-December-2022

First Contact evidence: “annex\_Contract-Between-Parties.pdf”, “REUNIÃO PAULO CRESTANI\_VERT\_07072023.pdf” and “TermoAceite\_Proposta\_JCrestani (1).pdf”

#### Employees and owners of neighbour properties

The farm employees of nearby farms have shown great interest in the project. Specifically, regarding the Amazon biome, they have important curiosities and contributions that enhance the project's progress. They all expressed interest in the methods of near real-time satellite/remote monitoring of fires in the farm's areas. They were also keen to understand the animal species captured by the camera traps. Many of them have already met the project auditors during its validation process. No concerns were raised.

#### NGO Instituto Homem Pantaneiro (IHP)

The IHP also maintains close contact with the project, as it is a beneficiary of its benefit-sharing. They are very willing to participate and contribute their expertise, particularly since they are responsible for developing part of the sustainable indicators, as detailed in Section 6. No objections were raised regarding the content presented about the project.

First contact date: 09- August-2023

First contact evidence: “00. Partnership\_Instituto\_Homem\_Pantaneiro.pdf”

#### SEMA-MT (Mato Grosso State Environmental Department)

Although preliminary contacts were made to address matters related to the project, a formal meeting for consultation with this stakeholder was not arranged in 2023 due to PP scheduling conflicts. It was understood that, given the monitoring period from 2020 to 2023, there would be little useful time to gather any substantial contributions. Therefore, a more deliberate meeting has been scheduled for 2024, and all developments and considerations will be included in the next monitoring report.

#### Mato Grosso Military Fire Brigade

The Fire Brigade was informed about the project and indicated that the nearest base for responding to fire incidents is located in Sorriso-MT. Discussions were held regarding the overland distance for response and the

	<p>availability of the brigade’s vehicles, should the need arise. Additionally, the possibility of offering a forest fire brigade training course for the farm employees was discussed, with the expectation that it will be conducted in 2024. No further considerations were drawn.</p> <p>First contact date: 13- August-2020</p> <p>First contact evidence: “E-mail_Fernando_Faz_J_Crestani_e_Bombeiros_Sinop_2020.pdf”</p>
<b>Ongoing communication</b>	<p>An annual meeting will be held with stakeholders using most suitable and appropriate methods such as virtual platform, also with the community involved, on site, for a didactic presentation of the main results of the project and consider possible feedback. Apart from these meetings, the existence of an open channel of communication with the project proponents for any possible considerations throughout the year is publicised on these occasions for those involved – e-mail, phone number (including WhatsApp) and website, as detailed in Section 2.1 of the last PDD version.</p> <p>+55 (19) 97406-1426 (André Jardini – project proponent responsible)</p> <p>jardini@vertecotech.com</p> <p><a href="https://vertecotech.io/">https://vertecotech.io/</a></p>
<b>Stakeholder input</b>	<p>During the consultation process, all input received from stakeholders was carefully considered. No modifications or updates to the project design were necessary based on the feedback provided.</p>

## Free Prior and Informed Consent

<b>Obtaining consent</b>	<p>Not Applicable. According to Section 2.1 of PDD Fazenda J. Crestani Conservation Project, meetings were held with stakeholders, either in person or online, to present the project, its main impacts, possible communication channels, and to receive considerations and feedback. Such consultations represented the relative process for obtaining free, prior, and informed consent for the implementation of the project. As mentioned in the document, no comments or feedback were recorded during these occasions. No IPs, TCs, and customary rights holders are contemplated in this consultation as explained previously.</p>
<b>Outcome of FPIC</b>	<p>Not Applicable. According to Section 2.1 of PDD Fazenda J. Crestani Conservation Project, no objections to the project were received. The project did not encroach on lands, relocate people without consent, or force physical or economic displacement, as it involves the Legal Reserve areas of a privately-owned rural property established over 10 years ago, as indicated by the property ownership document (attached). There is no possibility for the</p>

establishment of individuals or economic activities in the project area prior to the project.

## Grievance Redress Procedure

### Development process

The process was developed through internal meetings with a team specialised in conflict resolution, considering both external and regional consultants (Sinop, Mato Grosso). These meetings, that took place after the definition of main stakeholders, aimed to identify possible methods for receiving and resolving grievance, prioritising those that would work best for stakeholders with less voice or influence space, ensuring that the remaining stakeholders would necessarily be served by the developed process. “annex\_Grievance\_Faz\_J\_Crestani.pdf”

### Grievance redress procedure

Grievance can be submitted by stakeholders through multiple communication channels, as described in the last PDD version. The open channels include email, telephone, in-person or virtual meetings, and website – online platform. As detailed in the cited project, the contacts for receiving complaints are available in accessible location at Fazenda Palmasola (headquarters/office), and also provided via email for other interested parties.

In the event of a complaint, a conflict resolution team is formed, consisting of one member from the NGO Instituto Homem Pantaneiro (previously consulted and agreed), an independent external mediator, and the project proponent. A meeting, either in-person or virtual, is then scheduled to address the issue, accommodating the availability of the stakeholders.

After the meeting, the conflict resolution team analyses the complaints and provides an initial response within 5 business days. The response includes an acknowledgment of the complaint and an outline of the action plan to resolve the raised issue.

The main goal is to resolve all complaints within 15 business days of receipt. The resolution process may include additional meetings, mediated negotiations, and, if necessary, the implementation of specific corrective actions.

Regional community facilitators or other relevant interactive stakeholders may be involved to ensure all parties understand the process and feel comfortable participating.

## Benefit Sharing

### Process used to design the benefit sharing plan

Meetings were held with the owner of Fazenda J. Crestani, as indicated in the last PDD version, to define the potential percentages that would satisfy the funding needs of the project's activities in the area, considering the feasibility assessment. Furthermore, after identifying the stakeholders and understanding the context of Fazenda J. Crestani – previously described as a private farm with little or no relation to the regional context, neighbours, urban centres, etc., due to the significant distances involved – it was

	<p>proposed to use the NGO Instituto Homem Pantaneiro (IHP) as a vector for social development. This institute would receive a share of the project benefits to then map out possible social actions in the project region. Parallel meetings were held with IHP, which agreed both to the allocated share of benefits and to mapping out potential social development actions that align with the project's financial return foreseen, to be eventually included in the sustainable indicators, as described in Section 6.</p>
<p><b>Summary of the benefit sharing plan</b></p>	<p>As per the documentation attached, detailing the contract between the parties, the agreed amount is 60% for the landowner. It was also agreed with IHP that 10% of the return from the credits would be allocated to the aforementioned activities – this agreement has been formalised in a specific contract, also attached.</p>
<p><b>Approval and dissemination of benefit sharing plan</b></p>	<p>As previously stated, the agreements are formalised with the interested parties and are available and accessible for consultation or review as needed by affected parties.</p>

## 2.2 SOCIALCARBON Safeguards

Only the safeguard requirements identified as relevant to the project are described and documented in the table below. A complete Safeguarding Assessment can be found in PDD v.12, Appendix 1.

Assessment Area	Requirement	Is this being mitigated?	Evidence
1. Human Rights	The Project Developer and the Project shall respect internationally proclaimed human rights and shall not be complicit in violence or human rights abuses of any kind as defined in the Universal Declaration of Human Rights	Yes	The project occurs strictly within an area of native formations under conservation, with temporary inhabitants residing in the area – it is a private rural property with a history of private ownership. However, it fully complies with all current national laws and universal human rights, labour, and other relevant regulations, as indicated by the monitoring of pertinent indicators. Evidence presented in Section 6.1 Broader Sustainability

Assessment Area	Requirement	Is this being mitigated?	Evidence
			Results, through Human and Social Resource, regarding worker health and safety, social impact, community health, among others related. Additionally, the proponent provides an ethical code of conduct that aligns with the safeguarding of these principles, emphasising the promotion of Human Rights, Respect for diversity, prevention of Moral and Sexual Harassment, Freedom of expression, Safety and health, among other related aspects.
	The Project shall not discriminate with regards to participation and inclusion	Yes	The project includes measures to engage all possible stakeholders, particularly by offering specific communication and transparency programmes with stakeholders. Evidence presented in Section 6.1 Broader Sustainability Results, through Human and Social Resource, regarding communication with stakeholders, traditional people assistance, social impact, women inclusion, community training and health, among others related. Additionally, the proponent provides an ethical code of conduct that aligns with the safeguarding of these principles, emphasising the promotion of Human Rights, Respect for diversity,

Assessment Area	Requirement	Is this being mitigated?	Evidence
			prevention of Moral and Sexual Harassment, Freedom of expression, Safety and health, among other related aspects.
2. Gender Equality	The Project shall not directly or indirectly lead to/contribute to adverse impacts on gender equality and/or the situation of women	Yes	The project takes place in an area where the presence of women is typically limited, such as on agricultural farms, predominantly made up of men rural workers. However, inclusion and equality measures are planned to be implemented throughout the project, which will be monitored by the relevant indicators. Evidence presented in Section 6.1 Broader Sustainability Results, through Human and Social Resource, regarding women inclusion, social research, among others related. Additionally, the proponent provides an ethical code of conduct that aligns with the safeguarding of these principles, emphasizing the promotion of Human Rights, Respect for diversity, prevention of Moral and Sexual Harassment, Freedom of expression, Safety and health, among other related aspects.
	Projects shall apply the principles of non-discrimination, equal treatment, and equal pay for equal work	Yes	The project takes place in an area where the presence of women is typically limited, such as on agricultural farms, predominantly made up of men

Assessment Area	Requirement	Is this being mitigated?	Evidence
			rural workers. However, inclusion and equality measures are planned to be implemented throughout the project, which will be monitored by the relevant indicators. Evidence presented in Section 6.1 Broader Sustainability Results, through Human and Social Resource, regarding women inclusion, social research, community training and health, among others related. Additionally, the proponent provides an ethical code of conduct that aligns with the safeguarding of these principles, emphasising the promotion of Human Rights, Respect for diversity, prevention of Moral and Sexual Harassment, Freedom of expression, Safety and health, among other related aspects.
3. Health and Safety	The Project shall avoid community exposure to increased health risks and shall not adversely affect the health of the workers and the community	Yes	The workers involved in the project are fully protected under all relevant laws and labour protections, with measures in place to prevent health risks in their activities. Evidence presented in Section 6.1 Broader Sustainability Results, through Human and Social Resource, regarding workers health and safety, community health, equipment and infrastructure, among others related.

Assessment Area	Requirement	Is this being mitigated?	Evidence
6. Land Tenure and Rights	The project proponent shall identify all such sites/matters potentially affected by the Project.	Yes	All sites affected by the project are identified and under secure property control and legal documentation. Evidence presented in annexes related to property documentation and CAR related documentation. Also, relevant identification should be presented in Section 6.1 Broader Sustainability Results, through Social Resource, regarding local indigenous / traditional people.
	The project proponent must hold uncontested project and carbon rights for the entire Project Boundary.	Yes	The project proponent holds project and carbon rights for the boundary. Evidence presented in appendixes related to contract between parties and property documentation.
8. Corruption	The Project shall not involve, be complicit in or inadvertently contribute to or reinforce corruption or corrupt Projects	Yes	The project demonstrates transparency and due diligence in the measures adopted, as well as in relevant financial matters, which can be tracked through specific indicators, in order to mitigate any associations with corruption. Evidence presented in Section 6.1 Broader Sustainability Results, through Social and Financial Resource, regarding stakeholders communication and economic viability. Also related to annexed documentation presented regarding due diligence and

Assessment Area	Requirement	Is this being mitigated?	Evidence
			other related documentation. Additionally, the proponent provides an ethical code of conduct that aligns with the safeguarding of these principles, emphasising the promotion of Human Rights, Respect for diversity, prevention of Moral and Sexual Harassment, Freedom of expression, Safety and health, among other related aspects.
9. Labour Rights	The project proponent shall ensure that there is no forced labour and that all employment is in compliance with national labour and occupational health and safety laws, with obligations under international law, and consistency with the principles and standards embodied in the International Labour Organization (ILO) fundamental conventions.	Yes	The workers involved in the project are fully protected under all relevant laws and labour protections, with measures in place to prevent health risks in their activities. Evidence presented in Section 6.1 Broader Sustainability Results, through Human and Social Resource, regarding workers health and safety, community health, equipment and infrastructure, among others related.

Assessment Area	Requirement	Is this being mitigated?	Evidence
	<p>The project proponent shall use adequate and verifiable mechanisms for age verification in recruitment procedures in order to prevent child labour as defined by the ILO Minimum Age Convention. Exceptions are children for work on their families' property as long as the following requirements are met:</p> <ul style="list-style-type: none"> <li>a) Their compulsory schooling (minimum of 6 schooling years) is not hindered, AND</li> <li>b) The tasks they perform do not harm their physical and mental development, AND</li> </ul> <p>They are provided appropriate equipment, training of workers, documentation and reporting of accidents and incidents, and emergency preparedness and response measures.</p>	Yes	<p>Brazilian labour norms and legislation previously cited (strictly under “CLT” regulations), there is no potential for infringement of this safeguard, including stakeholders. Other issues related are addressed within Health and Safety and Human Rights areas.</p>
10. Financial Sustainability	<p>The project proponent shall demonstrate financial sustainability of the Projects implemented.</p>	Yes	<p>Financial sustainability of the project is demonstrated. Evidence presented in Section 6.1 Broader Sustainability Results, through Financial Resource, regarding economic viability.</p>
11. Climate	<p>Projects shall not increase greenhouse gas emissions over the Baseline Scenario unless this is specifically allowed within Activity Requirements or the applied Methodology.</p>	Yes	<p>The project is composed of activities specifically focused on emission prevention and carbon removal, as outlined in the project's activities, which are at its core, such as the prevention of wildfires and</p>

Assessment Area	Requirement	Is this being mitigated?	Evidence
			deforestation. Evidence presented in Section 6.1 Broader Sustainability Results, through Natural and Carbon Resource, regarding environmental impacts and project performance. Also, Section 3 details project's activities which attend directly to avoidance of greenhouse gas emissions.
12. Natural Resources	The Project shall demonstrate that measures to ensure soil protection and minimised erosion are in place prior to the commencement of the Project.	Yes	Soil protection and erosion are being monitored by specific indicators related to firebreaks maintenance. In addition to the area not having a steep slope, periodic maintenance of firebreaks and access roads reduces the potential for generating dynamic soil processes around the project area, with no significant degrading factors involved in relation to the loss of soil, vegetation and soil conservation. Evidence presented in Section 6.1 Broader Sustainability Results, through Natural Resource, regarding environmental compliance of the farm and environmental impacts.
	Projects shall maintain or enhance biodiversity and ecosystem functionality in the project area.	Yes	The project maintains and potentially enhances biodiversity and ecosystem functionality by its core activities which as prevention of

Assessment Area	Requirement	Is this being mitigated?	Evidence
			disturbance and conservation of natural formations. Evidence presented in Section 6.1 Broader Sustainability Results, through Biodiversity Resource, regarding biodiversity monitoring, research and local information.
	The Project shall not lead to the reduction or negative impact of any recognised Endangered, Vulnerable or Critically Endangered species.	Yes	With the preservation and conservation of the areas, there is great potential for biodiversity increasing. Initial survey of species identified in the project area was shown in Social Carbon Indicator B-003 Biodiversity monitoring and B-006 Flora and Fauna Local Information annexes.
	Habitats of endangered species shall be specifically identified and managed to protect or enhance them.	Yes	With the identification of trails, footprints and camera trap images, there is great potential for biodiversity protection. Initial survey of species identified in the project area was shown in Social Carbon Indicator B-003 Biodiversity monitoring and B-006 Flora and Fauna Local Information annexes.

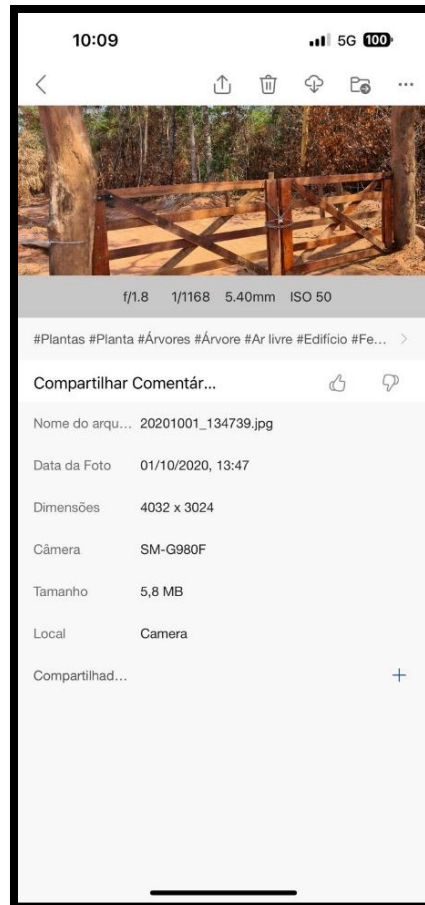
## 3. Implementation Status

### 3.1 Implementation Status of the Activity

In the matter of the methodology applied related to conservation of native formations in Fazenda J. Crestani (SCM0003, v.1.0), along with proposed project activities, it is found that it is currently under full development. Following the acquisition of specific materials for the conservation of Legal Reserves during 2020 (30-September, as Project Start Date indicates), the following activities described below became part of property's scope, as verified, until 31-December-2023 (end of monitoring period). A photographic register with several related images is found annexed to this project. Annexed documents also reveal evidence of invoices of material and services related to project activities.

All materials and inputs related to the carbon credit project activities are purchased on demand (annex "Owner\_declaration\_Faz\_J\_Crestani\_with\_annex\_I\_assinado"), remaining stocked at Fazenda Palmasola (attached document E-mail\_data\_Verification Report - Fazenda Crestani), stakeholder of the project until their use.

Construction of the gate: Among these materials, cedar wood, varnish, thinner, sandpaper, screw rod, washer, nut, hinge, padlock and chain were purchased in October 2020 for the construction of the gate, an important milestone for the project's start date (together with the issued Notarial Deed – Ata Notarial). The construction of the gate was carried out by Mr. Fernando José Maggioni, Fazenda J. Crestani manager, with his own hands and evidenced in photos (image below), demonstrating total commitment to the preservation and conservation of the Legal Reserve and consequently, the area of the carbon credit project.



**3.1-1:** Photos from the day the gate was built to protect the project area with timestamp.

Firebreak maintenance: Firebreaks were already being implemented by the farmers in previous years, as mandated by laws and regulations. However, they were developed inefficiently, without any form of oversight or monitoring, demonstrating a lack of enforcement of the law. It is understood that the technical improvement of firebreaks, their more frequent maintenance, and the introduction of monitoring now constitute an additional

conservation measure for the areas. And this point potentially aligns with the document "Guidance for Brazilian Protected Areas" itself, which is used as a reference for this SCM0003 project.

Firebreaks in Fazenda J. Crestani were implemented every year at the beginning of the dry season – between May and June – based on tacit knowledge from farm manager and third part employees, an approach closes to recommended by EMBRAPA institute<sup>1</sup>. The firebreaks were only carried out around the perimeter of the Legal Reserve and are used also as access roads.

A shallow plough harrow is used to form strips to exclude grass and pioneer vegetation about 2-3 metres wide, as illustrated below. The strips are eventually reduced when there is already an internal road within the perimeters, which work as a firebreak.



**Image 3.1-2:** Fazenda J. Crestani's perimeter (Fazenda Romão) with access road as firebreaks (Author records, August-2023)

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<sup>1</sup> EMBRAPA, 2015. Guia de restauração do Cerrado: volume 1: semeadura direta. Embrapa Recursos Genéticos e Biotecnologia. 40 p., il. Brasília, DF. Universidade de Brasília: Rede de Sementes do Cerrado, 2015. Available at: <https://www.embrapa.br/busca-de-publicacoes/-/publicacao/1044072/guia-de-restauracao-do-cerrado-volume-1-semeadura-direta>.



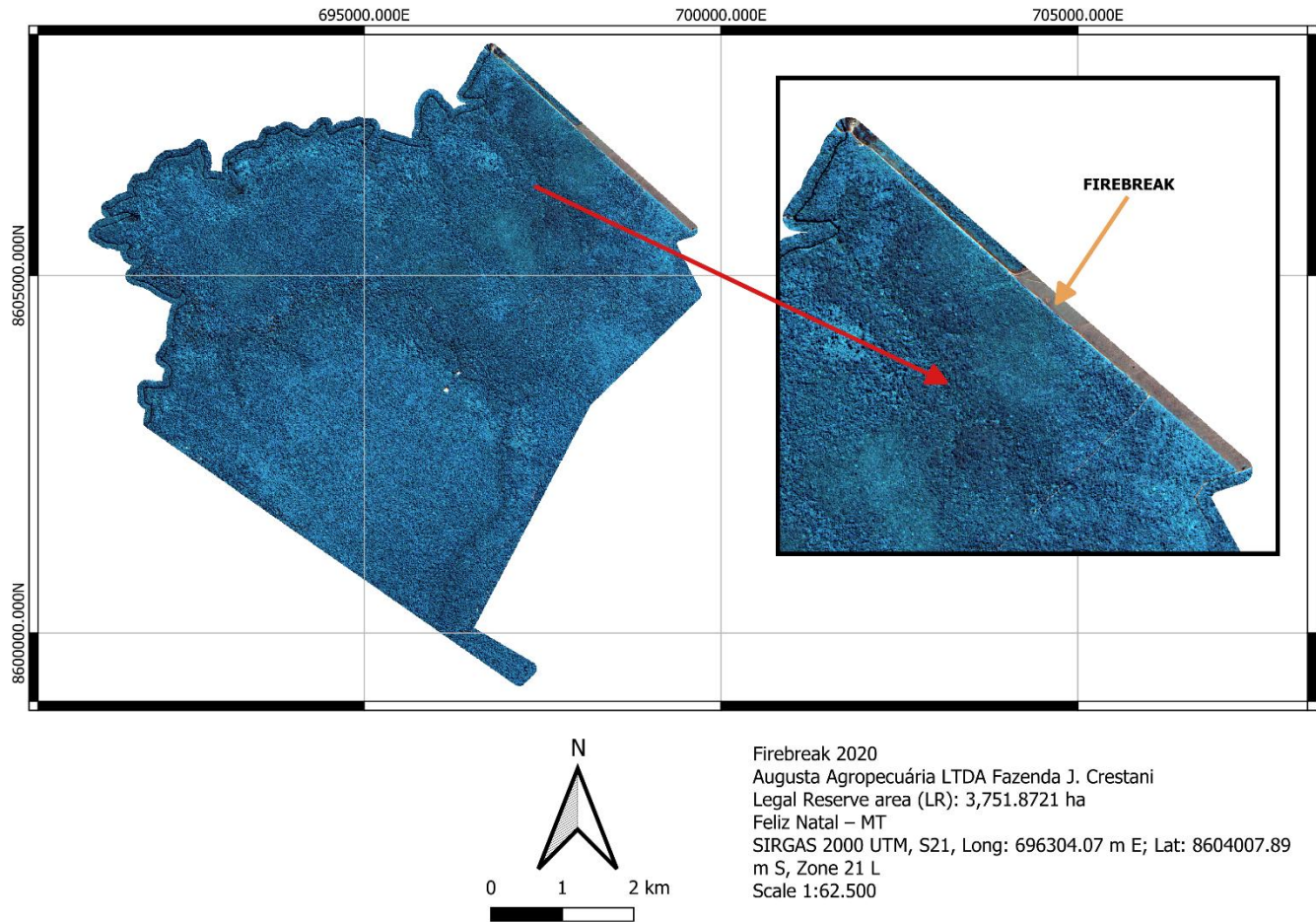
**Image 3.1-3:** Fazenda J. Crestani's perimeter with firebreaks (access road) between agricultural area and project area – Drone view (Author records, August-2023)



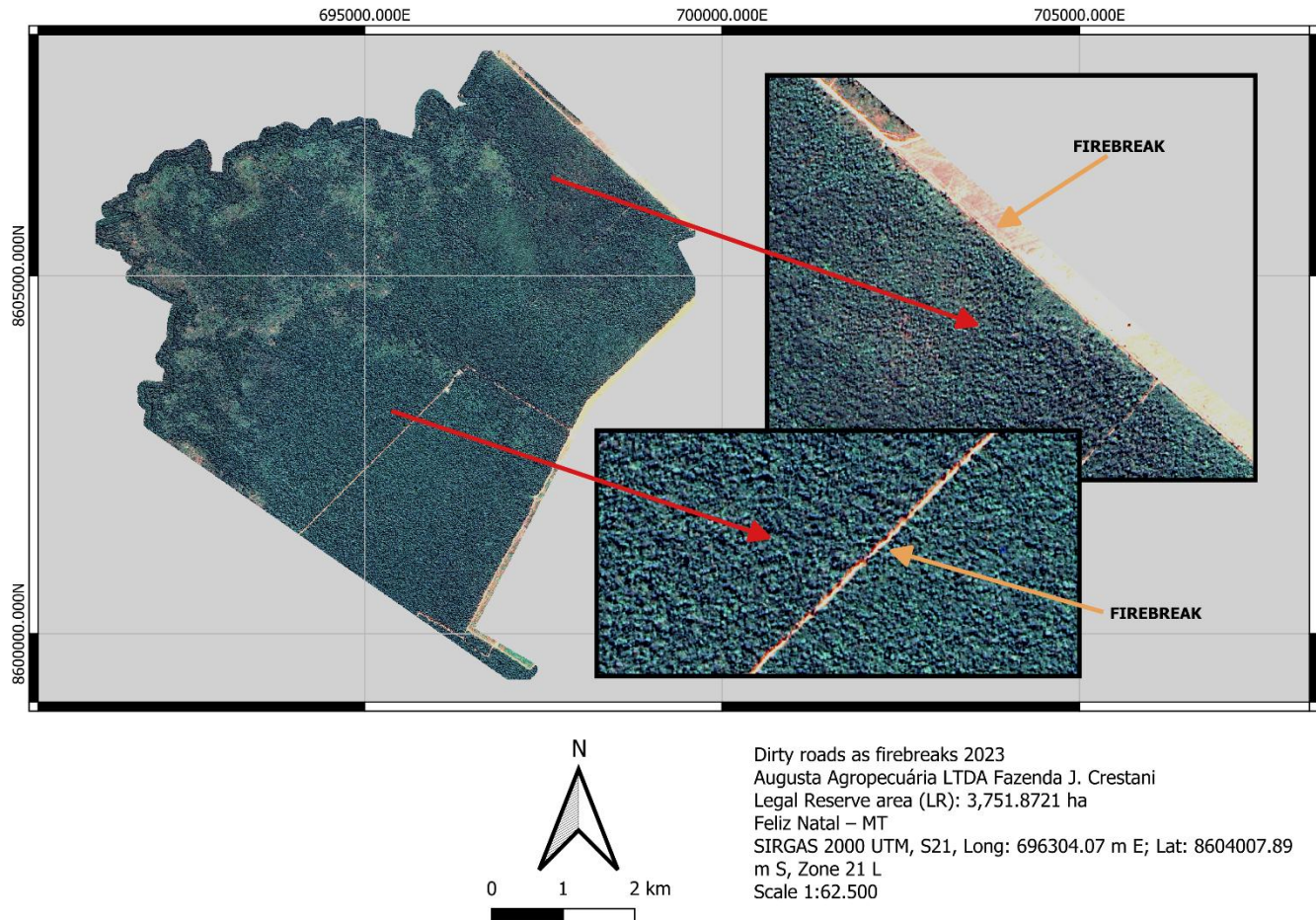
**Image 3.1-4:** Fazenda J. Crestani's internal Legal Reserve - LR (project area) access road as firebreak (Author records, August-2023)

The establishment of firebreaks between farm perimeters and between agriculture and forest areas is a common practice in Sinop-MT region, since the presence of fire incidents is common in this region. The further topic "Remote monitoring (fire and deforestation events)" clearly demonstrates how the fire events were limited

to the neighbouring property at the time, and this fact was attributed to the implementation of effective firebreaks and fire monitoring in Fazenda J. Crestani – which is then related to avoidance of emissions of GHG in project area, by preventing forest fires in project area. These elements may eventually be used as internal roads without impairing its functionality.

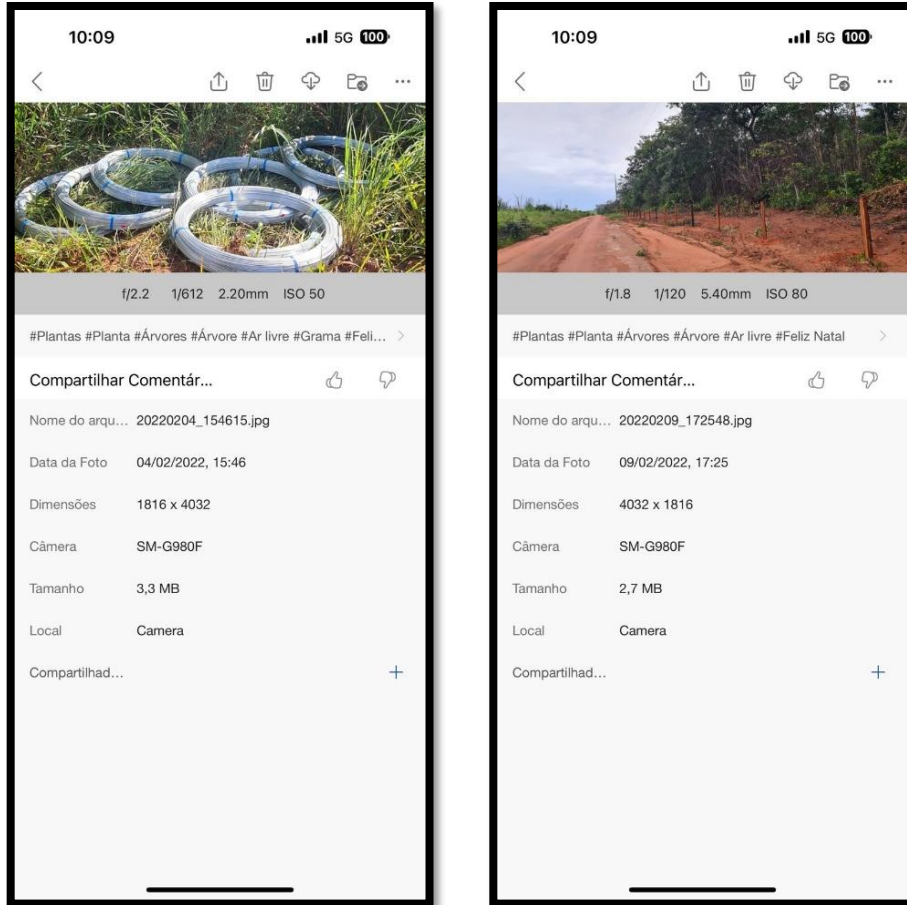


**Image 3.1-5:** CBERS4-A image from July-2020 – firebreaks maintenance activity in Fazenda J. Crestani perimeter, between Fazenda Asa Branca, Fazenda Romão and Legal Reserve.



**Image 3.1-6:** CBERS4A image from July-2023 – firebreaks maintenance activities within Fazenda J. Crestani Legal Reserve (access roads) and in its perimeter, between Fazenda Asa Branca, Fazenda Romão and Legal Reserve.

Fence maintenance: Over the monitoring period, the fences have undergone punctual maintenance in alignment with the farm's routine, alongside other activities. They were repaired in the event of any occurrence that could damage them, such as falling posts or wire breaks. The Fazenda Palmasola employees or outsourced contractors conduct periodic visual inspections during the farm's usual activities, ensuring that the entire perimeter of the Legal Reserve is entirely monitored at least once a year.



**3.1-7:** Photos of smooth wire material and firebreak fence in the project area with timestamp.



**Image 3.1-8:** Example of fence conformity within Fazenda J. Crestani perimeter and Legal Reserves (Author records, 2020)

For the maintenance of fences, firebreaks, gate and conservation and preservation of the project area, in the period between January 1, 2021 and December 31, 2023, materials were purchased and services contracted as listed below:

- Receipt January 2021 – 2-stroke oil for brush cutter/chainsaw;
- Receipts February 2021 – purchase of PPE, machete and gloves;
- Receipts June 2021 – purchase of cambara wood posts for fence maintenance and sheet metal for agricultural area signage;
- January 2022 receipt – padlock and chain for the gate;
- Receipt February 2022 – 1,000.00 m wire for fence maintenance;
- Receipt April 2022 – PPE leg guards and mask and galvanized wire for fence maintenance;
- Receipt May 2022 – purchase of PPE leggings and gloves;
- In August 2023, a drone was purchased for all operations of the projects carried out by Vert Ecotech;
- In October 2023, a platform for predicting fire risk points was contracted by the company QUIRON.

Furthermore, most of the receipts, invoices and monthly vouchers for the period between 2020 and 2023 are related to Mr. Fernando (manager) food and travel by motor vehicle to the farm from Sinop-MT, approximately 119 km away, which is travelled every 15 days to inspect the boundaries, vegetation area (object of the carbon credit project), as well as the agricultural area on the same property. The latter is leased by the owners of Faz. Palmasola, a stakeholder in the carbon credit project and belonging to the same family group and, therefore, also taking advantage of the opportunity for inspection and assistance, even though it is not the main focus of the inspections and is not part of the carbon credit project area.

In this sense, the service provision contract with a third party for the removal of firewood from the agricultural area, through the annex document “CONTRACT AUGUSTA\_retirada\_lenha.pdf”, which refers to the service provided in 919 ha of the Farm’s area, in practice, also covers the implementation and maintenance of the fence and firebreaks of the Fazenda J. Crestani, which includes a large part of the perimeter of the Legal Reserve area and dirt roads within the RL. This lack of distinction also occurs for obvious reasons: all areas – whether productive or conservation – require constant maintenance service, and the service provider is indifferent to the specification of the type of area to be worked and provides services to the same family group.

All receipts and cost sheets can be found in the “annex\_Project-Activities” attachment.

## DA EXECUÇÃO

Cláusula 2ª. O EMPREITEIRO fornecerá a mão-de-obra necessária para a realização do disposto nesse contrato, o EMPREITANTE e as VENDEDOR(AS), ficam isentos em fornecer, quaisquer materiais para a realização dos trabalhos, identificados na Cláusula 1ª.

**3.1-9:** Contract clause with contractor for labor at Faz. J. Crestani. Source: Contract between AGROPECUÁRIA AUGUSTA LTDA and service provider.

Local monitoring against intrusions: During the farm's routine activities over the monitoring years, invasions by cattle from Fazenda Asa Branca and Fazenda Romão into conservation areas could be possible – naturally, as this is customary on livestock farms, where animals may take advantage of damaged fences to enter preservation areas and consume forage biomass – and in the event of these occurrences, they will be properly removed from the project area. In concern about strange people, there are outsourced contractors and Fazenda Palmasola employees that periodically patrol the area. No strange people or cattle were observed for the monitoring period.

In the Fazenda J. Crestani cost spreadsheet, there is the purchase of monitoring cameras for the agricultural area, which also serve the carbon credit project area, in Nov/22, Dec/22 and Jan/23 "Monthly Payment 2 cameras", Jul/23 "Monthly Payment 1 bush camera", Aug, Sep, Nov and Dec/23 "Monthly Payment 1 bush camera".

Fire-fighting measures: In accordance with the following item, "Remote monitoring (fire and deforestation events)", no fire events occurred during the monitoring period covered by this report. However, fire-fighting equipment and appropriate PPE (Personal Protective Equipment) have been made available and are stored at the Fazenda Palmasola headquarters, as documented below. During site visits, the need to keep PPE up to date and easily accessible is always mentioned, as well as equipment and vehicles with up-to-date maintenance and ready for fire events, especially during drier periods. Further developments will be updated throughout the project.



**Image 3.1-10:** PPE (Personal Protective Equipment) and other fire combat equipment available and stored at Fazenda Palmasola headquarters (Author records, April-2023)

It is worth mentioning that the main fire-fighting measures are set out in the attached “Plano de Atendimento a Emergências (PAE) – Fogo e Desmatamento - Fazenda J. Crestani; in English, Emergency Assistance Plan (EAP) – Fire and Deforestation. In one of its annexes, there is the complete list of materials for fire protection and firefighting on the farm, filled by Fazenda J. Crestani’s manager.

The first measures mentioned above reflect specific actions being developed by the owner to protect both the productive and reserve areas of the farm. These actions not only facilitate natural regeneration but also reduce

the impacts of wildfires and deforestation, thereby preventing GHG emissions and enhancing carbon sequestration by the vegetation. These carbon components were anticipated by the owner to be incorporated into projects that would provide resources for the maintenance of these measures, as outlined in Section 2.1 of the PDD v.12. Following the agreement between landowner and project proponent, several other complementary project activities and impact measures were implemented regarding the conservation of reserves:

Monitoring (fire and deforestation events): Since the project's start date, fire monitoring in the project area has been conducted through patrolling activities by employees of Fazenda Palmasola (a stakeholder in the project) and the manager of Fazenda J. Crestani, in addition to direct communication with neighbouring properties (Fazenda Asa Branca and Fazenda Romão). These stakeholders actively monitored the landscape daily, searching for smoke or signs of potential fire outbreaks or deforestation through the noise of a chainsaw, for example. Communication was maintained via internet messaging or in-person visits to the headquarters of Fazenda Palmasola, when necessary.

As this is the first verification of the J. Crestani Farm project, primarily involving retroactive GHG removals, no income was available yet to fund major monitoring improvements. Therefore, from the project's start date until the acquisition of monitoring cameras (2022), the contracting of the Quiron platform (2023), and the implementation of remote monitoring through other platforms, fire surveillance relied on close, on-the-ground collaboration among stakeholders.

The property manager, Fernando, as declared in the document "Owner\_declaration\_Faz\_J\_Crestani\_with\_annex\_I\_assinado.pdf", visits the farm biweekly and maintains close coordination with stakeholders to assess risks and preventive measures.

It is clear that, even without structured monitoring at the beginning of the project, establishing a network of neighbours, as an informal and/or sporadic measure proved to be an effective, low-cost, collective strategy for fire surveillance. This approach served as an early detection method, ensuring that stakeholders were the first line of defence in case of fire outbreaks. Furthermore, based on the Notarial Minutes, the improvement in monitoring events at the Farm is evident. J. Crestani.

Since 20-October-2023, project proponent set up a partnership with Quiron platform, as described in PDD Fazenda J. Crestani Conservation Project, which carries out remote monitoring using high-tech intersections along the project areas plus 500 meters buffer.

The platforms from Quiron used for this monitoring are: 1-FLARELESS: Online platform for daily preventive (predictive) monitoring of fire risk, with a 10-day prediction for areas at greatest risk. It crosses several parameters obtained by remote sensing to determine a fire danger point; 2-MAPPER: Monitoring of the object

area with alerts for changes in land use (reactive), such as deforestation and fires, comparing different satellites images in different periods of time, as commented in EAP quoted above.

It is important to state that Quiron platforms FLARELESS and MAPPER monitoring is not in real time, it is predictive and confirmatory and could be called as Near-Real-Time monitoring. Every day FLARELESS platform is accessed and if exists places with the greatest risk of fire in the project areas, according to the cross-referencing of environmental parameters, an alert should be sent to the property responsible (manager), with the critical points generated by the platform, maps, coordinates, text on the prediction for the 10-day period, fire danger trend graph and suggested positioning of field teams. Complementarily, in possible event of fire/deforestation, MAPPER platform is activated to check the affected area. These monitoring reports sent frequently are as seen in the example image below, in order to alert and anticipate possible fire outbreaks, especially during the driest time of the year (dry season – from May to September), through farm's manager precise action to be adopted, if deemed necessary – described in EAP.

In this regard, the proponent has developed a control spreadsheet containing the main alerts generated during the current monitoring period, from the moment Quiron was added as a project monitoring tool, aiming to observe possible trends and plan future actions for fire prevention and control within the project areas. The results are that no alerts occurred in the period of monitoring after data correction by Quiron, as shown in the image 3.1-12.



**Image 3.1-11:** Quiron’s monitoring platform in Vert Ecotech’s module, with 3 critical points suggested in “very high” (Muito Alto) for fire risk in the buffer perimeter (500 m) – from 06 to 15 of November-2023.

It is important to mention that, in accordance with the emergency response plan referenced, if a critical point is identified as being at 'very high' or 'extreme' risk, a field team must be dispatched to the farm to verify the location.

The project proponent also carries out other prevention monitoring using several different platforms, as described in the EAP annexed, cross-checking data of the project area (i.e., using FIRMS – Fire Information for Resource Management System<sup>2</sup>, from NASA), in order to check for possible events when more severe hotspots are identified by the contracted platform described above.

<sup>2</sup> FIRMS, NASA, 2023. Available at: [https://firms.modaps.eosdis.nasa.gov/map/#d:today;l:fires\\_all\\_country-outline.graticule.earth;@-55.70,-17.89,12.90z](https://firms.modaps.eosdis.nasa.gov/map/#d:today;l:fires_all_country-outline.graticule.earth;@-55.70,-17.89,12.90z).



**Image 3.1-12:** Quiron’s monitoring platform in Vert Ecotech’s module for fire risk - from 20 October to 31 December-2023.

In addition to this contracted monitoring, there was a survey of fire events recorded through MapBiomias Fire Collection 2.0 and 3.0<sup>3</sup> for the years of 2020-2023. Data from INPE<sup>4</sup>, DETER TerraBrasilis<sup>5</sup>, Global Forest Watch<sup>6</sup>, MapBiomias ALERTA<sup>7</sup>, which provides fire events via TIFF (Tagged Image File Format) and Shapefile and also data from FIRMS – Fire Information for Resource Management System<sup>8</sup>, from NASA.

<sup>3</sup> Available at: <https://code.earthengine.google.com/?scriptPath=users%2Fmapbiomas%2Fuser-toolkit%3Amapbiomas-user-toolkit-fire.js>.

<sup>4</sup> INPE’s fire monitoring platform (Programa Queimadas do INPE – Focos de Queimadas e Incêndios), available at: <https://terrabrasilis.dpi.inpe.br/queimadas/portal/dados-abertos/index.html>.

<sup>5</sup> DETER TerraBrasilis’s fire monitoring platform, available at: <https://terrabrasilis.dpi.inpe.br/app/dashboard/alerts/legal/amazon/daily/#>.

<sup>6</sup> Global Forest Watch (GFW) – Agropecuária Augusta. Available at: <https://www.globalforestwatch.org/dashboards/aoi/64b99e18365418001b609c5d/?category=fires&location=WyJhb2kiLCI2NGI5OWUxODM2NTQxODAwMWI2MDIjNWQiXQ%3D%3D&map=eyJjYW5Cb3VuZCI6dHJ1ZX0%3D>.

<sup>7</sup> MapBiomias ALERTA publishes any loss of native vegetation detected by the alert systems and validated by high-resolution satellite images. Available at: <https://plataforma.alerta.mapbiomas.org/>.

<sup>8</sup> FIRMS, NASA, 2023. Available at: <https://firms.modaps.eosdis.nasa.gov/map/#d:24hrs:@-55.19,-12.63,12.00z>.

Fires occurred in the project area between 08-August-2020 and 23-September-2020, before the start date of the project with the implementation of conservation actions, 30-September-2020. More information about it can be reached in the PDD v.12.

The results of the different platforms consulted are discrepant among themselves. Regarding fires, the different platforms present or do not present events during the years evaluated (2020 to 2023), which made data analysis difficult. Therefore, a point-by-point analysis is necessary to understand the result obtained, which could be said it was positive after the implementation of the project.

According to Image 3.1-13 and Image 3.1-14 with data obtained by the MapBiomass Fire 2.0 and 3.0 platform, the scars from fires that occurred on August and September 2020 are evident in the platform only in 2021, as expected. The difference in results between one version of the collection and another is evident, due to data corrections over time. Regardless of the corrections, it is worth noting that there were no fires from 2021 onwards.

In Image 3.1-15 according to the MapBiomass ALERT platform, it is clear that there were no fires during the monitoring period after the start of the project. At the same time, in Image 3.1-16, despite the fires having occurred in the second half of 2020, the MapBiomass Fire 2.0 and 3.0 platform did not highlight the fact in relation to the annual occurrence of fires (Image 3.1-17), contradicting the same data from the platform for the numerical frequency of fires in Images 3.1-13 and 3.1-14, the latter of which shows small points within the project area, which in reality are areas of vegetation recovering, fallen trees or even scars from illegal deforestation that also occurred in the area during the same period as the fires. There is a clear confusion in the classification on the MapBiomass platform in relation to deforested areas, which were not necessarily affected by fires, and the areas that were actually burned, considering both situations as burned areas.

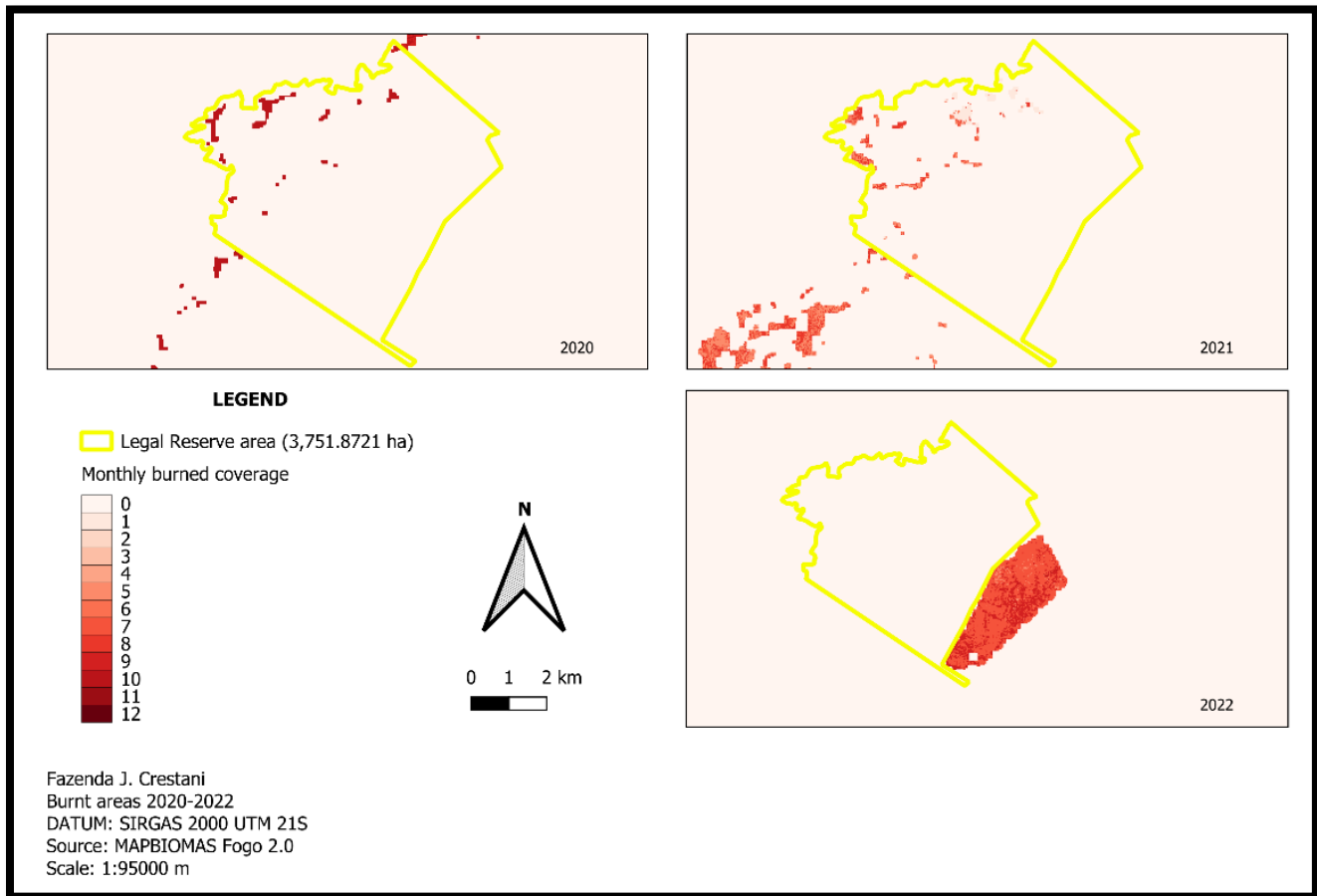
The most reliable data comes from the Global Forest Watch (GFW) platform, which clearly shows in Image 3.1-18 the burned scars and the years in which there was loss of tree vegetation due to fires, however, without there being a change in land use, continuing as forest formation.

Image 3.1-19 from INPE corroborates the information on fires in the project area in 2020 and, from that year onwards, there were no more events after the beginning of conservation actions. The pixels shown overlap the project area because they have an area of 1 km<sup>2</sup>, however, the fire events occurred on an agricultural area of Fazenda J. Crestani itself, as well as in the surrounding area.

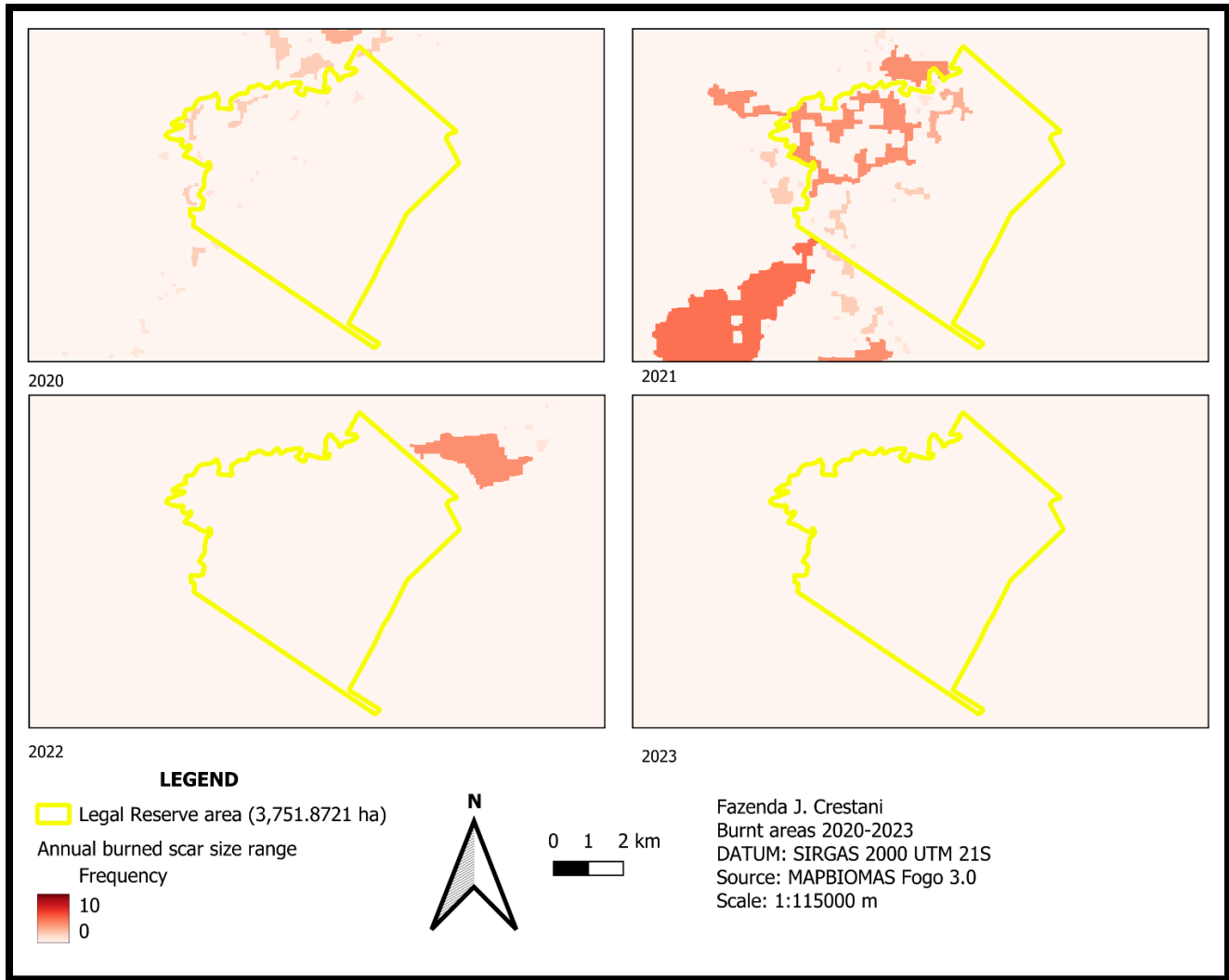
In image 3.1-20, according to the DETER TerraBrasilis platform, there is a demonstration of all the dates of fire scars in the project area, including dates from 2022, in a large portion of land. It is important to emphasize that there have been no fires since 2020. This scar in 2022 is possibly still a reflection of the degradation of the vegetation caused by the 2020 fires.

Therefore, the reality obtained after the start of the project and the development of conservation actions is positive, since there are no records of fires in the area in 2021, 2022 and 2023.

There is also an important verification of the effectiveness of the implementation of firebreaks and on-site monitoring since 2020, the year the project began, since there are significant records of fire events on neighbouring properties, noting that the project area of Fazenda J. Crestani was not affected, as revealed in the images presented.



**Image 3.1-13:** Progress of burned scars areas neighbouring Fazenda J. Crestani’s project area and within the project area – 30-considering September-2020 as project start year. Source: MAPBIOMAS Fire Collection 2.0.



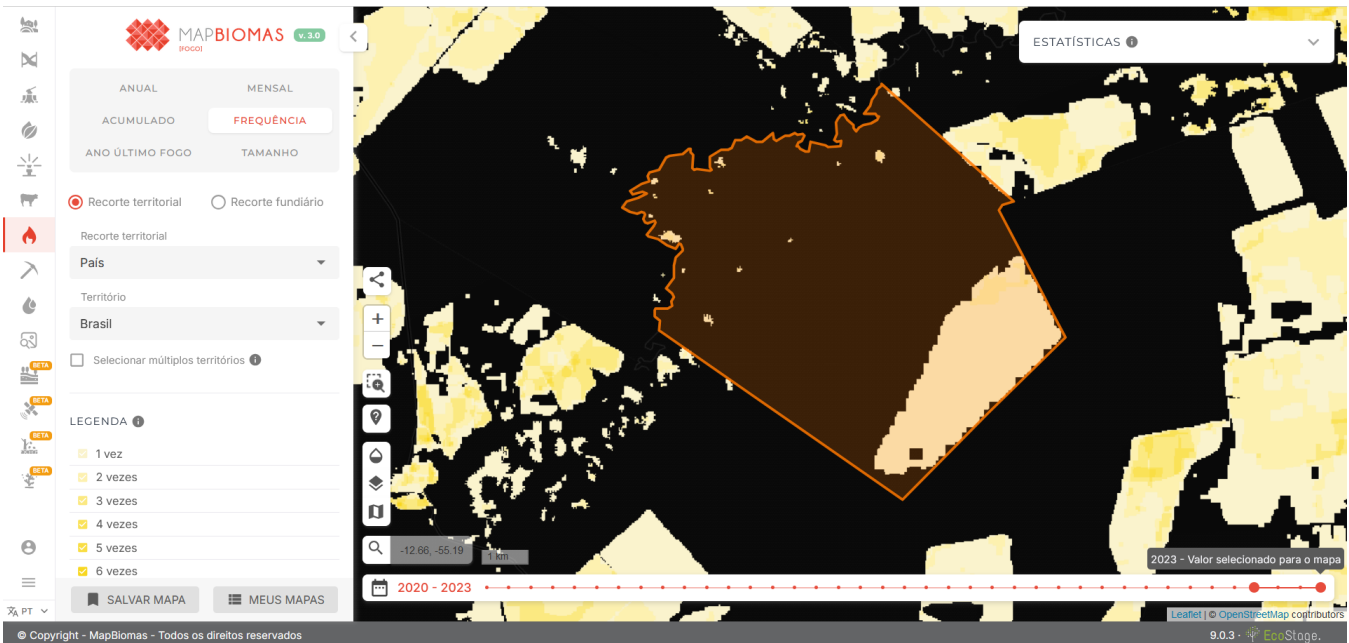
**Image 3.1-14:** Progress of burned scars areas neighbouring Fazenda J. Crestani’s project area and within the project area – considering 30-September-2020 as project start year. Source: MAPBIOMAS Fire Collection 3.0.



**Image 3.1-15:** Consultation of the database available from MapBiomias ALERT revealing occurrences within the immediate vicinity of Fazenda J. Crestani project area (outlined in yellow) in the period of September to December 2023.



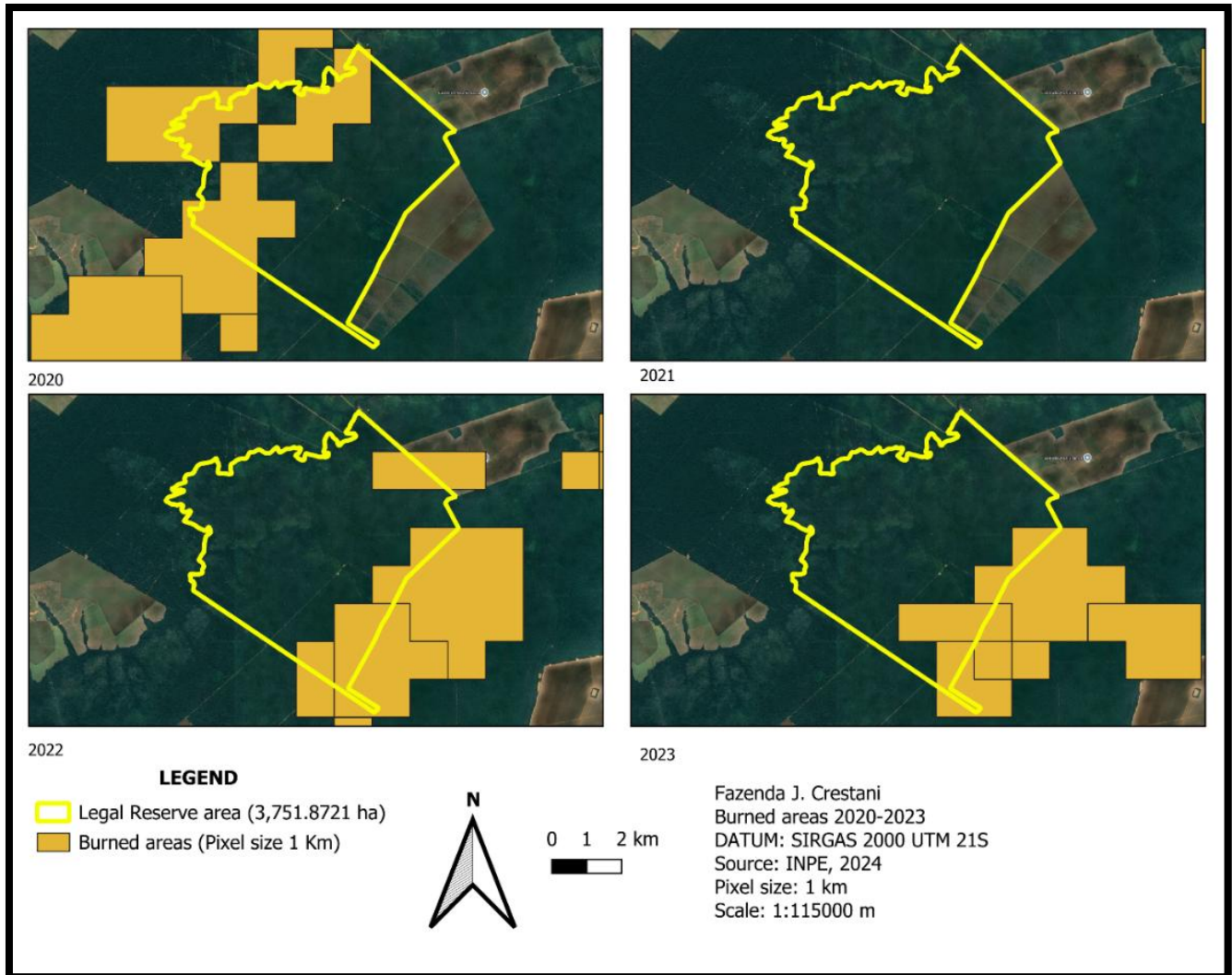
**Image 3.1-16:** Consultation of the database available from MapBiomias Fire 3.0 revealing no annual fire events occurrences within the immediate vicinity of Fazenda J. Crestani and inside the project area during 2020 and 2023.



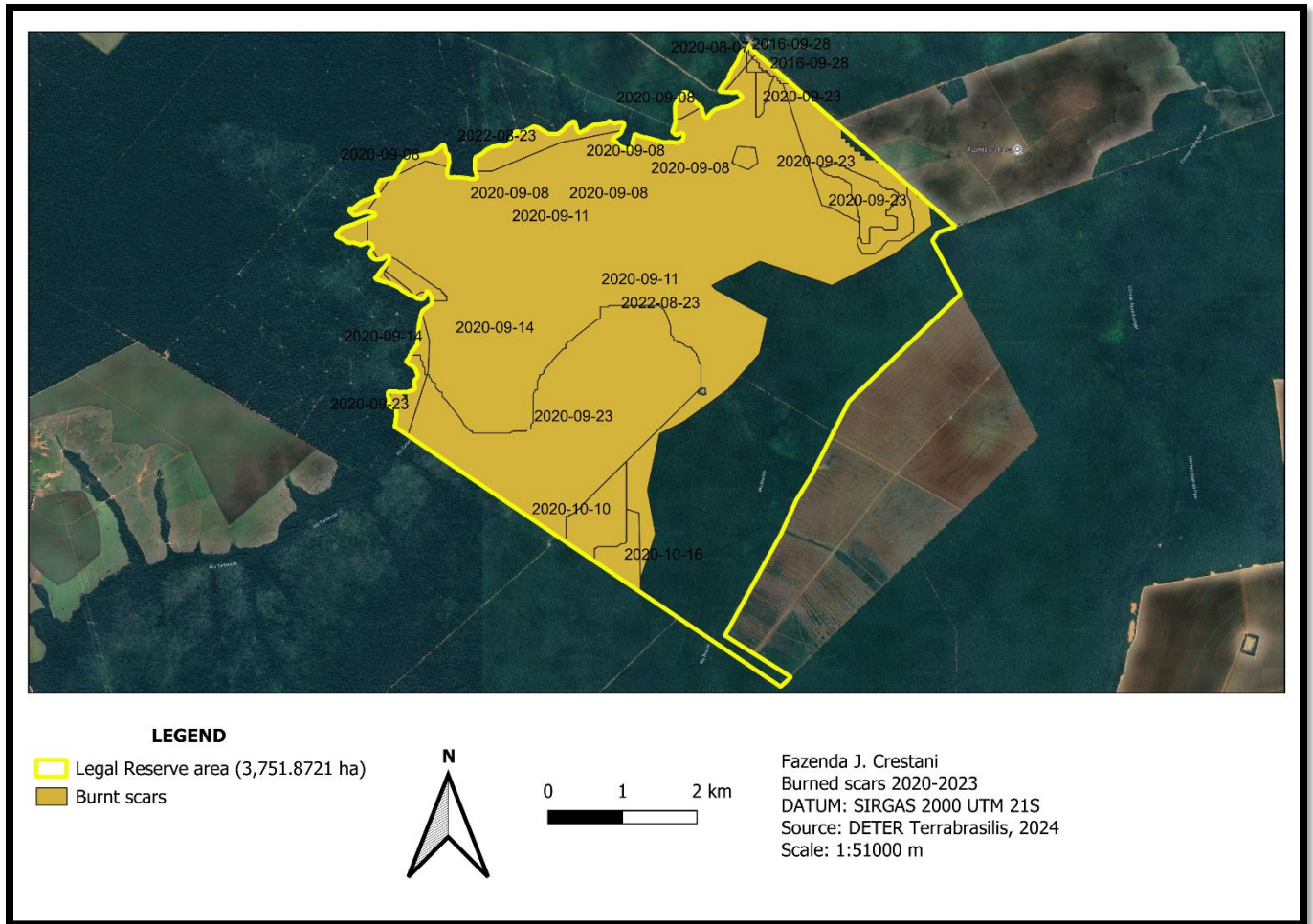
**Image 3.1-17:** Consultation of the database “fire events frequency” available from MapBiomos Fire 3.0 revealing occurrences within the immediate vicinity of Fazenda J. Crestani project area and small spots inside the project area.



**Image 3.1-18:** Consultation of the database available from Global Forest Watch (GFW) revealing tree cover loss due to fire and fire alerts (VIIRS) consulted throughout the project within the immediate vicinity of Fazenda J. Crestani (outlined in green) from 2001 to 2023 with special attention to the years 2020 and 2021.

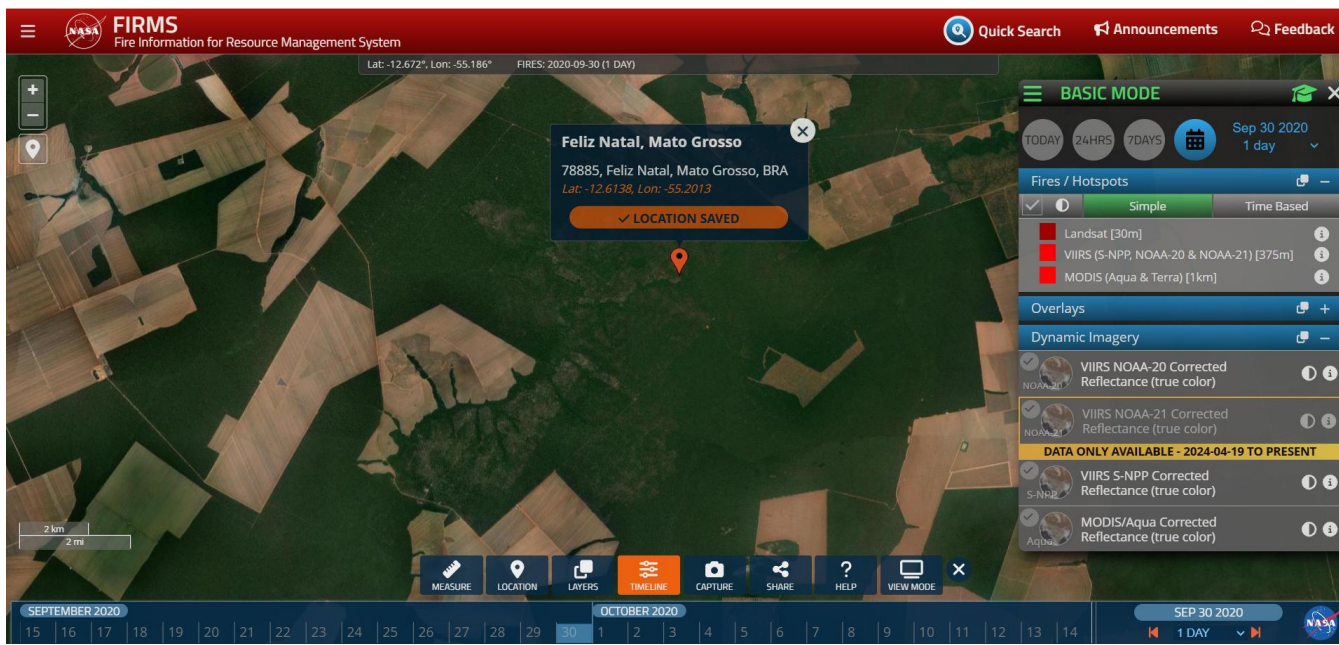


**Image 3.1-19:** Consultation of the database “annual fire events” available from INPE revealing occurrences within the immediate vicinity of Fazenda J. Crestani project area and inside the project area.

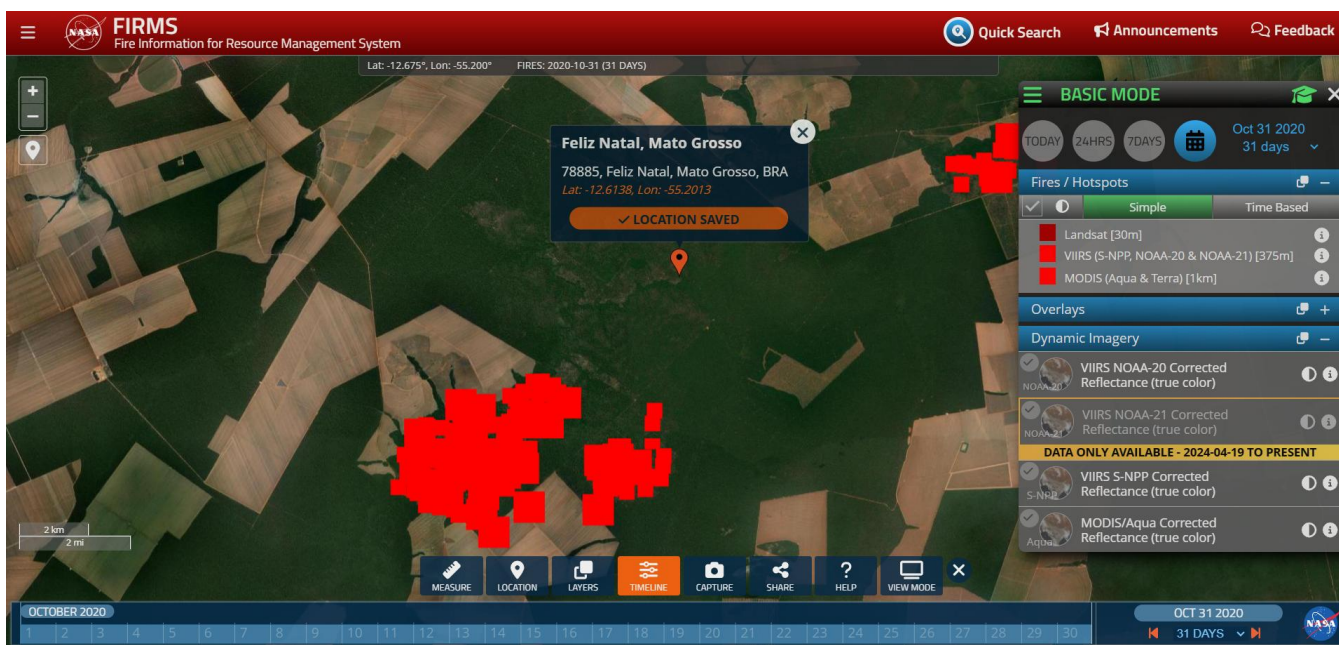


**Image 3.1-20:** Consultation of the database “burnt scars” available from DETER TerraBrasilis revealing occurrences inside the Fazenda J. Crestani project area.

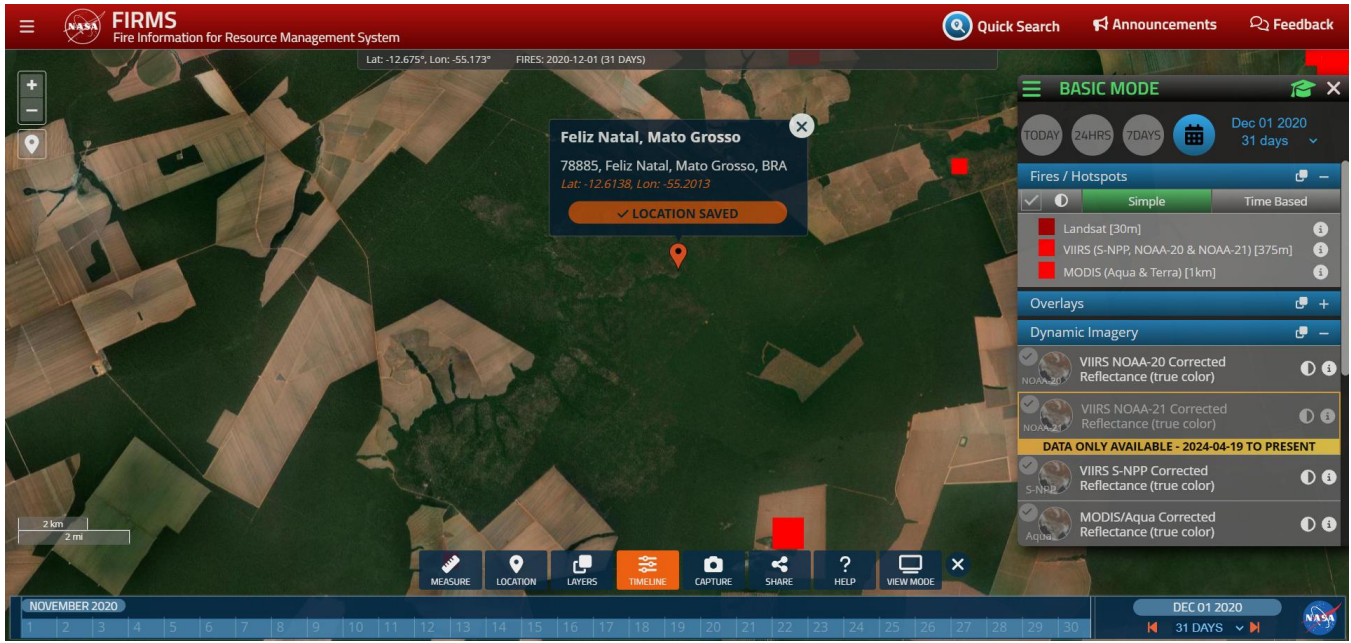
Finally, NASA's Fire Information for Resource Management System (FIRMS) provides near real-time (NRT) active fire data for monitoring and applications from the Moderate Resolution Imaging Spectroradiometer (MODIS) aboard the Aqua and Terra satellites, and the Visible Infrared Imaging Radiometer Suite (VIIRS) aboard S-NPP, NOAA 20, and NOAA 21 (formally known as JPSS-1 and JPSS-2). Globally, these data are available within 3 hours of satellite observation. It can be seen that since the project start date, 30-September-2020 to 31-December-2023, there were no fires in the project area, as shown in the next images, while in its surroundings some areas suffered from fires.



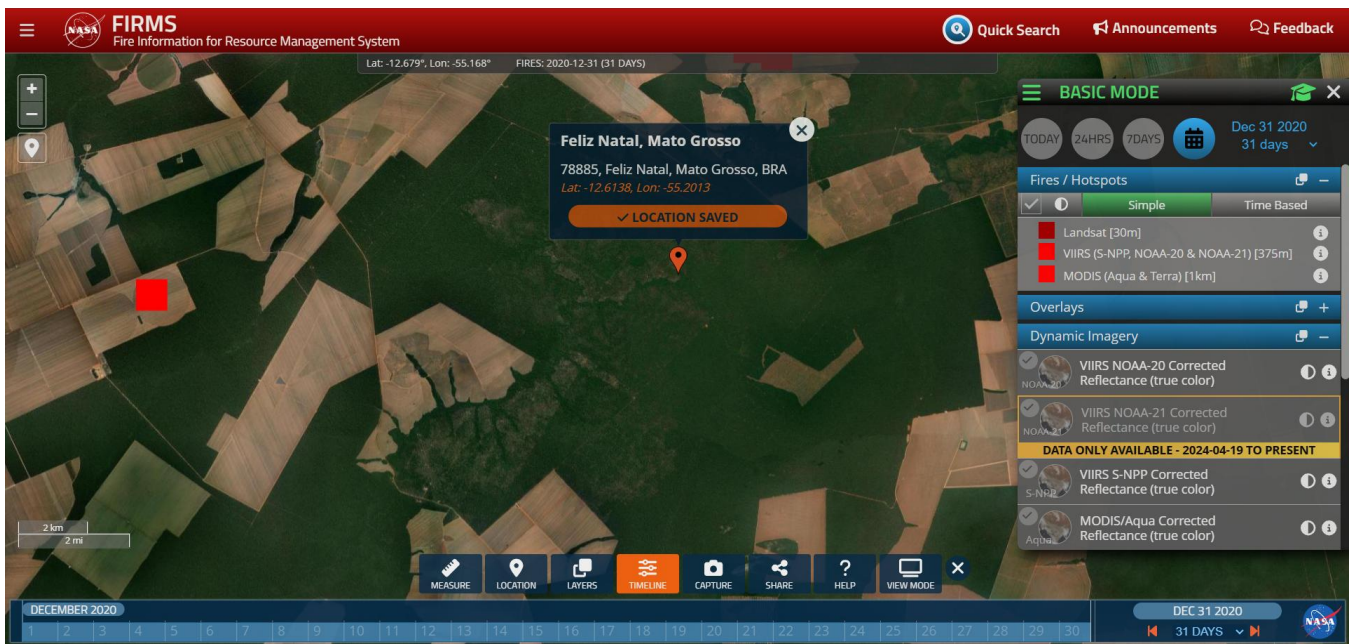
3.1-21: FIRMS NASA – 30 September 2020.



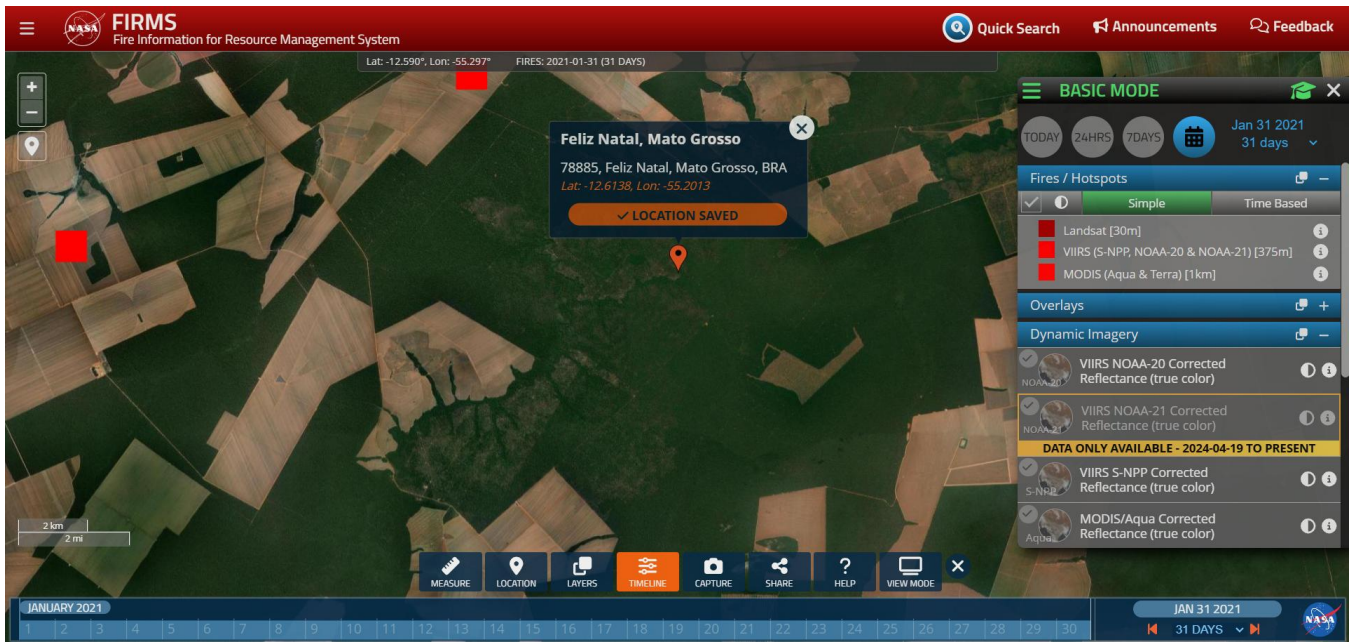
3.1-22: FIRMS NASA – October 2020.



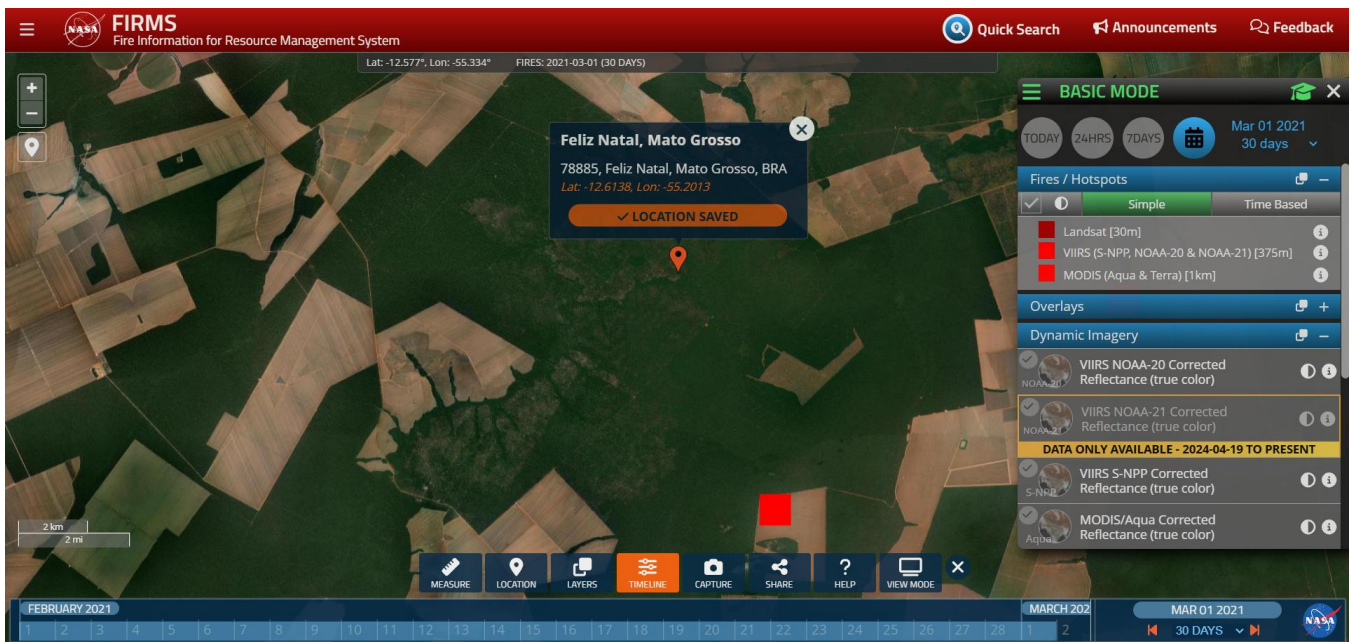
3.1-23: FIRMS NASA – November 2020



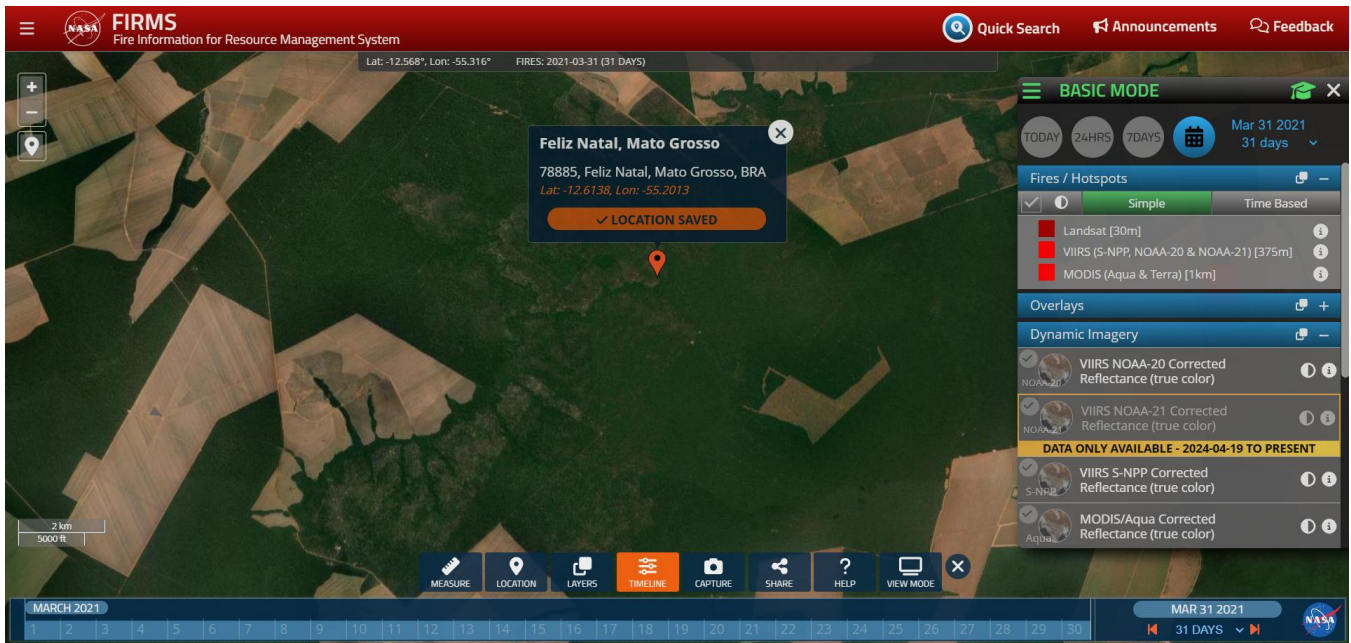
3.1-24: FIRMS NASA – December 2020.



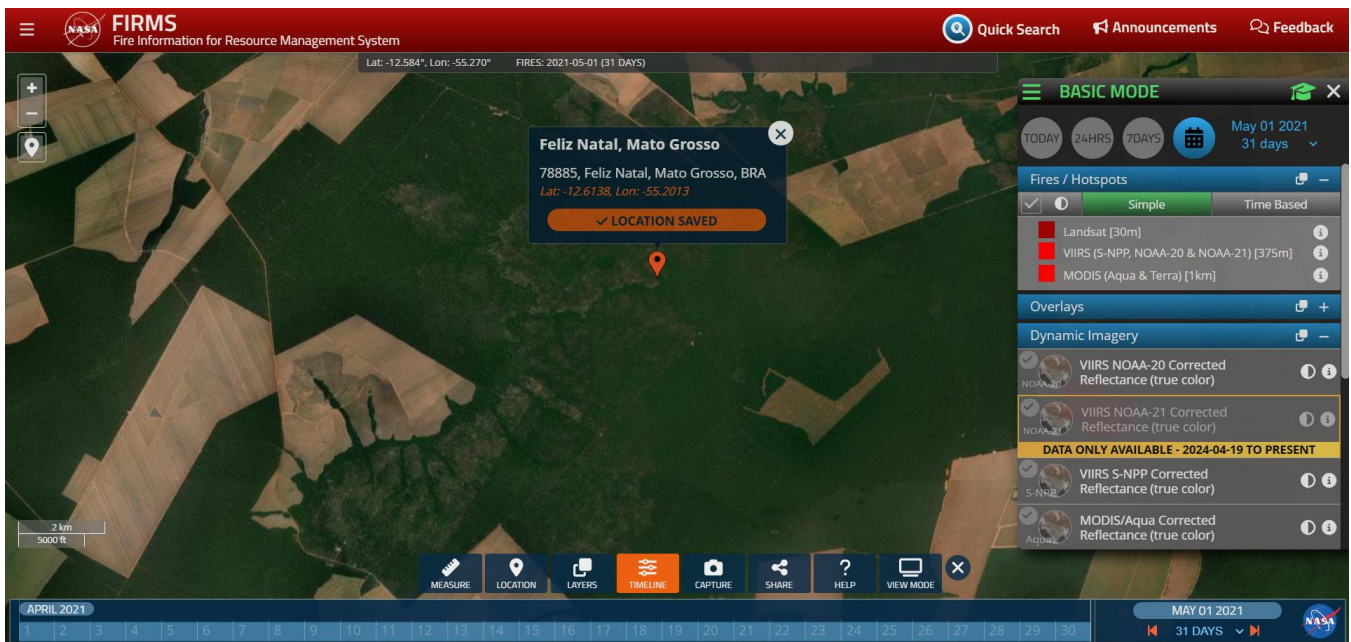
3.1-25: FIRMS NASA – January 2021.



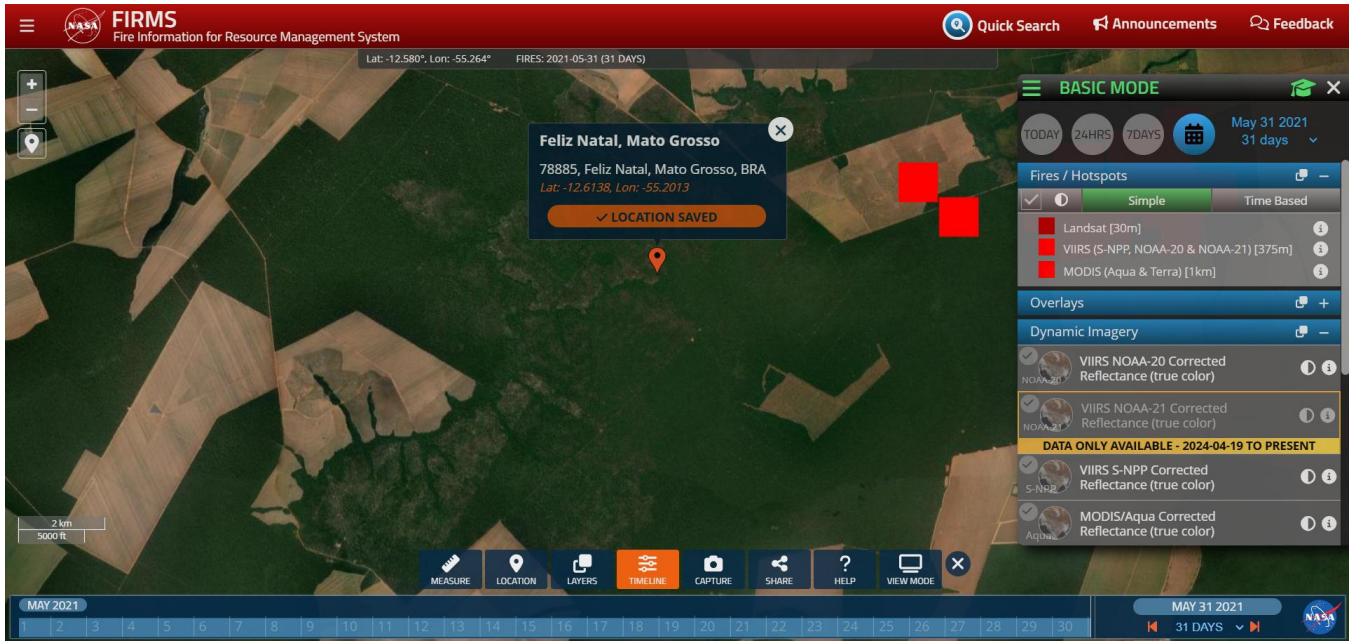
3.1-26: FIRMS NASA – February 2021.



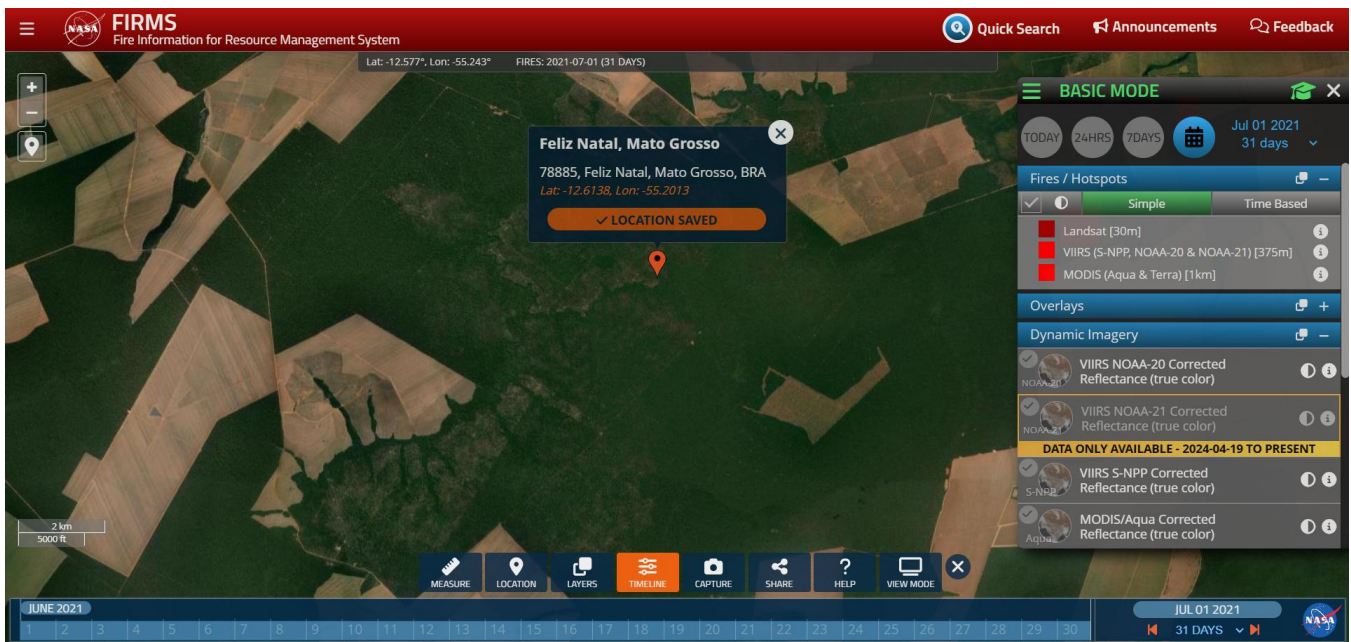
3.1-27: FIRMS NASA – March 2021.



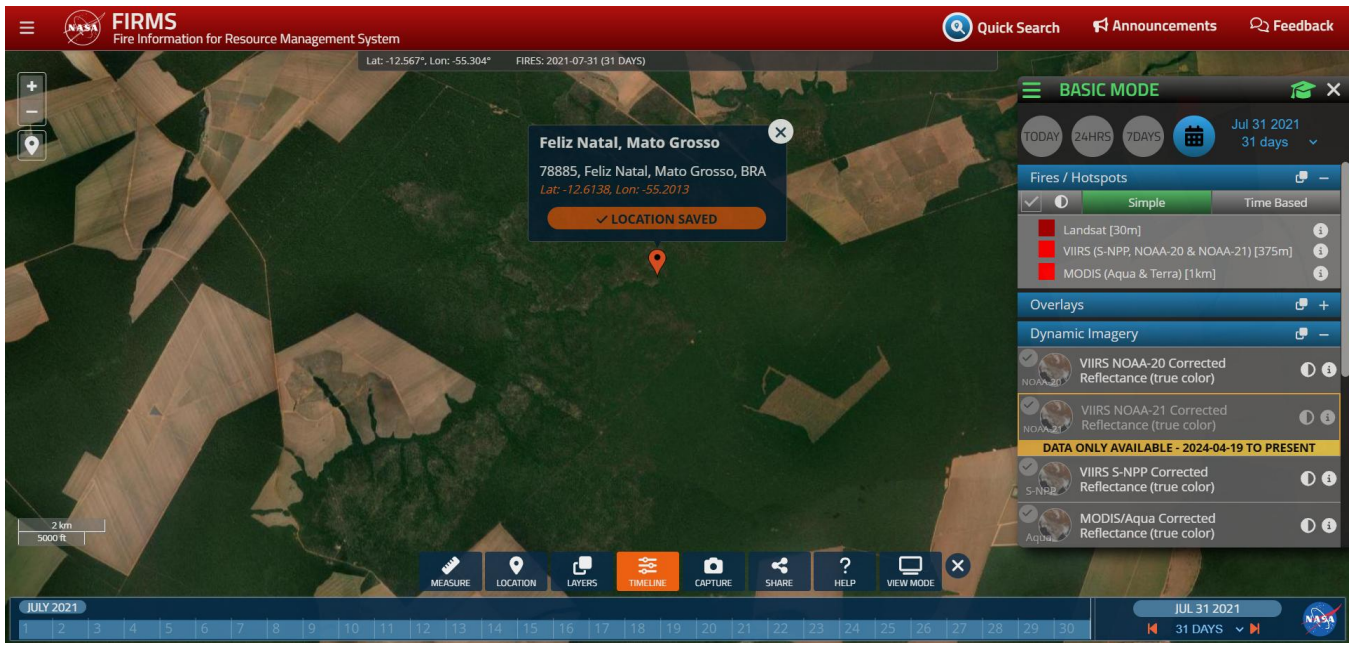
3.1-28: FIRMS NASA – April 2021.



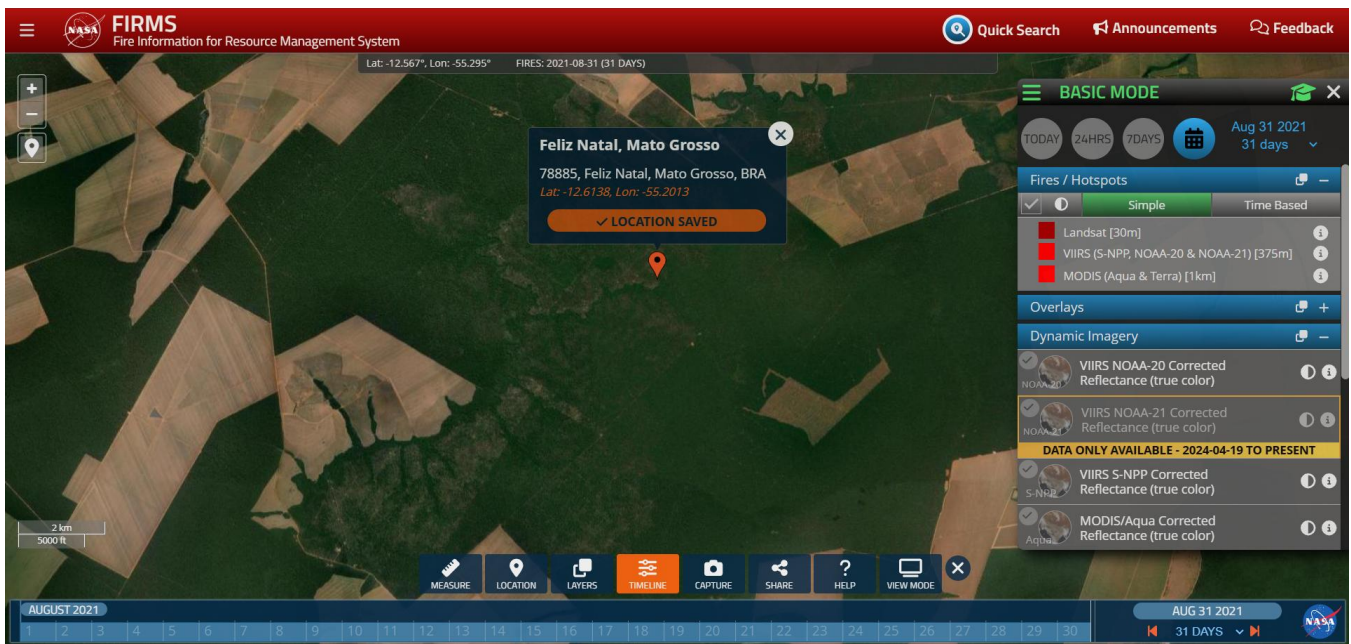
3.1-29: FIRMS NASA – May 2021.



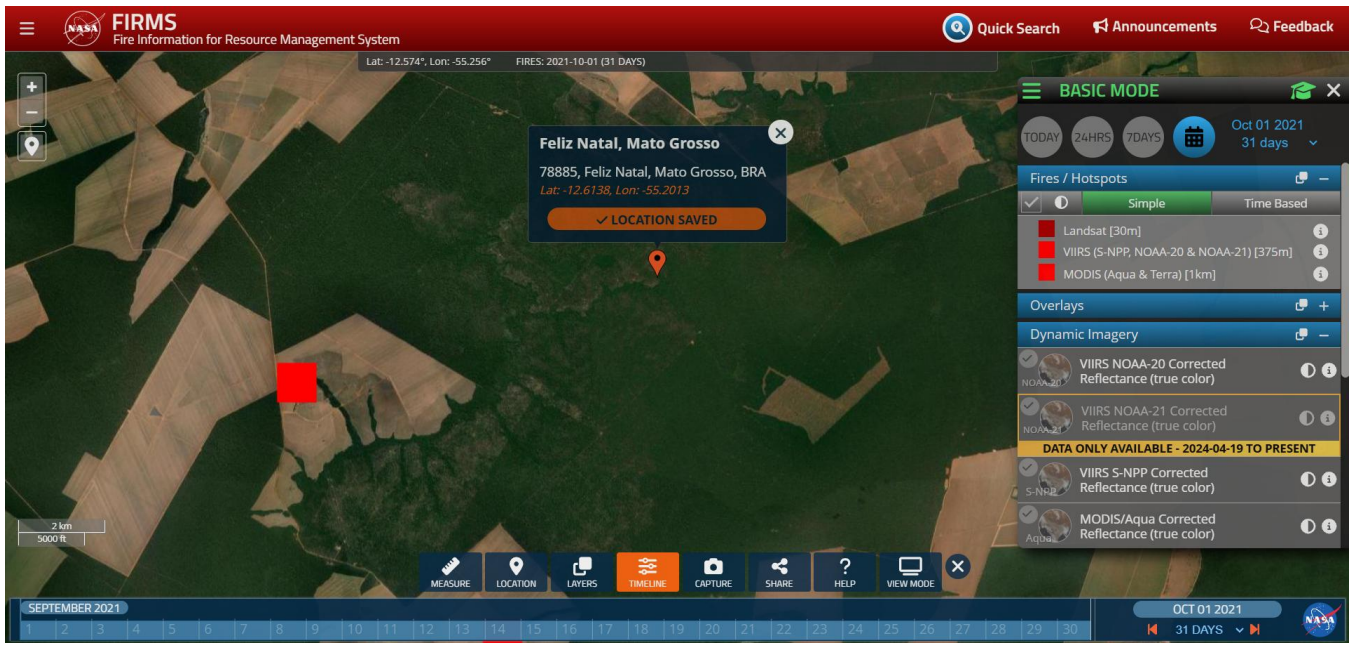
3.1-30: FIRMS NASA – June 2021.



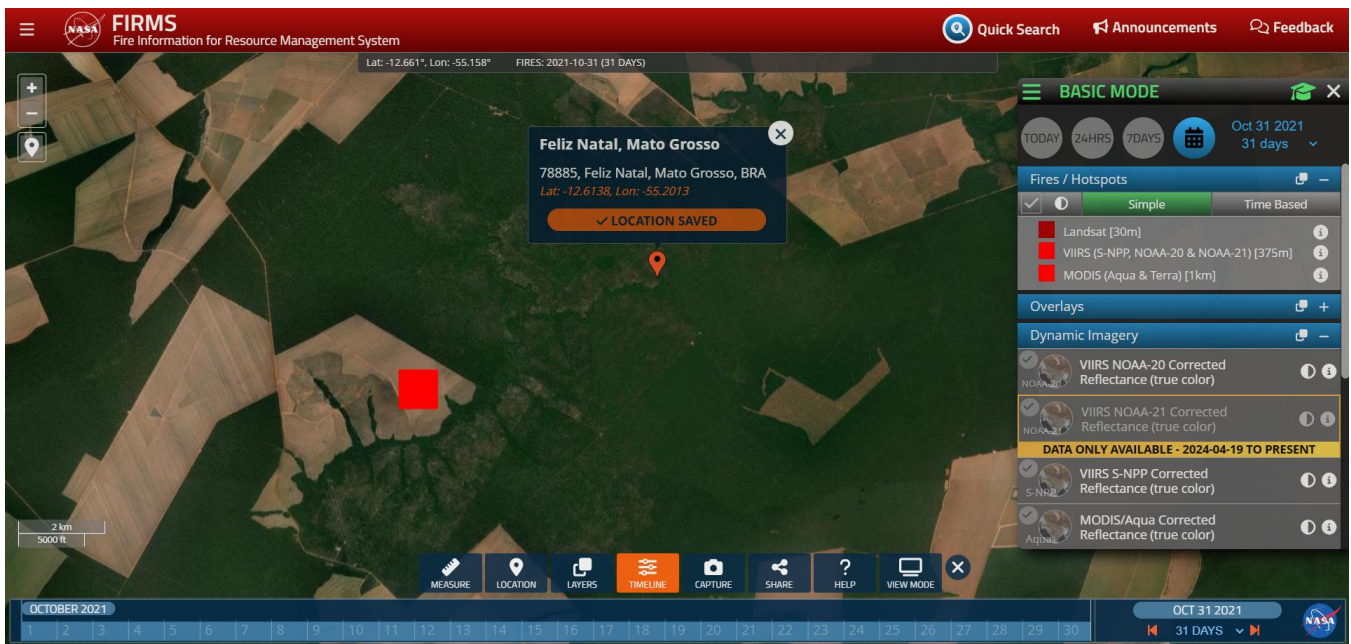
3.1-31: FIRMS NASA – July 2021.



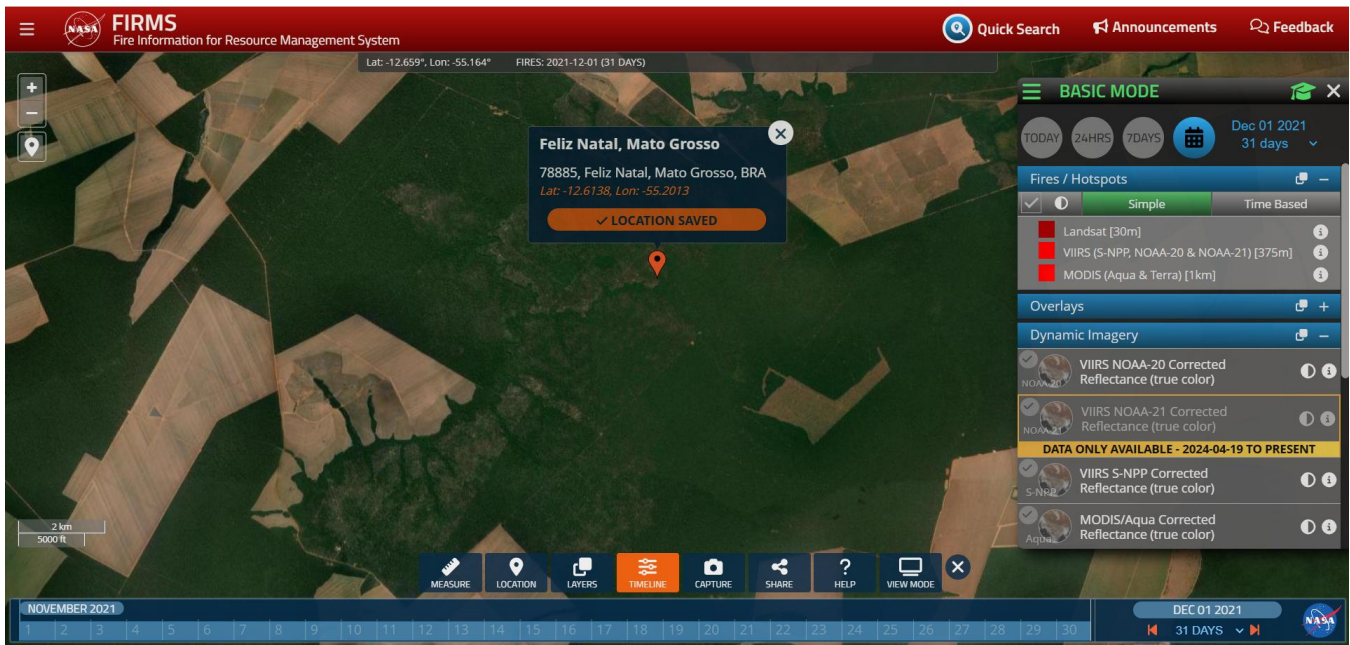
3.1-32: FIRMS NASA – August 2021.



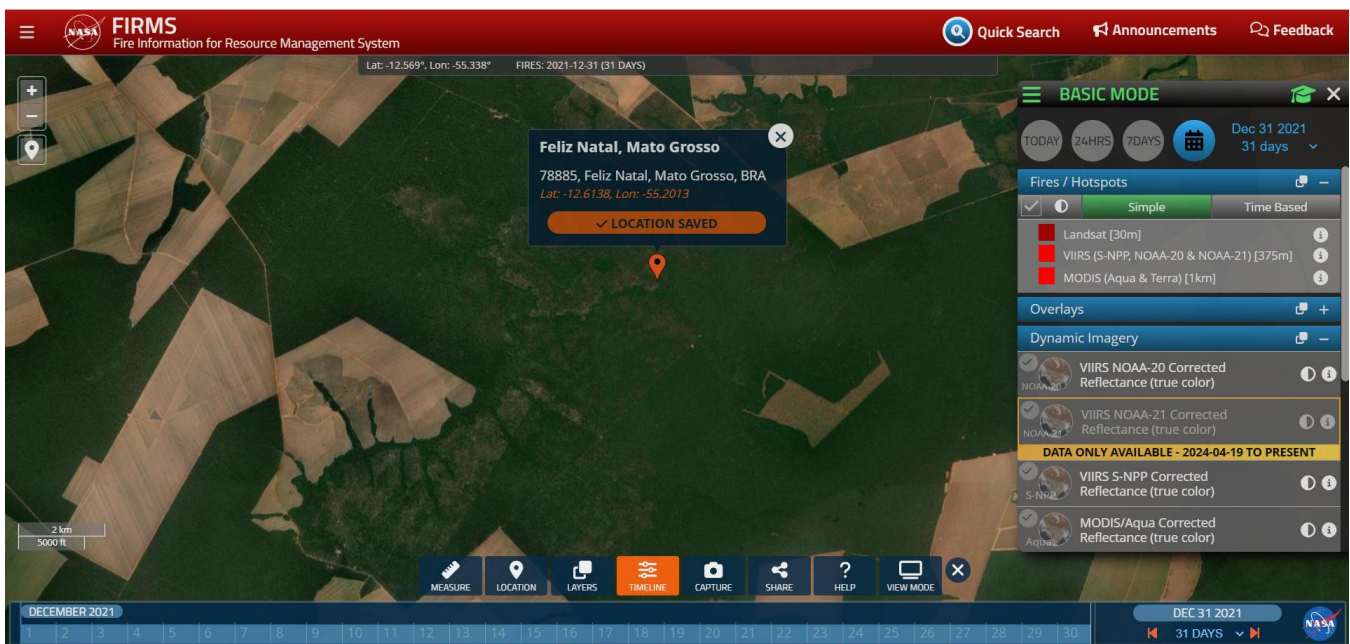
3.1-33: FIRMS NASA – September 2021.



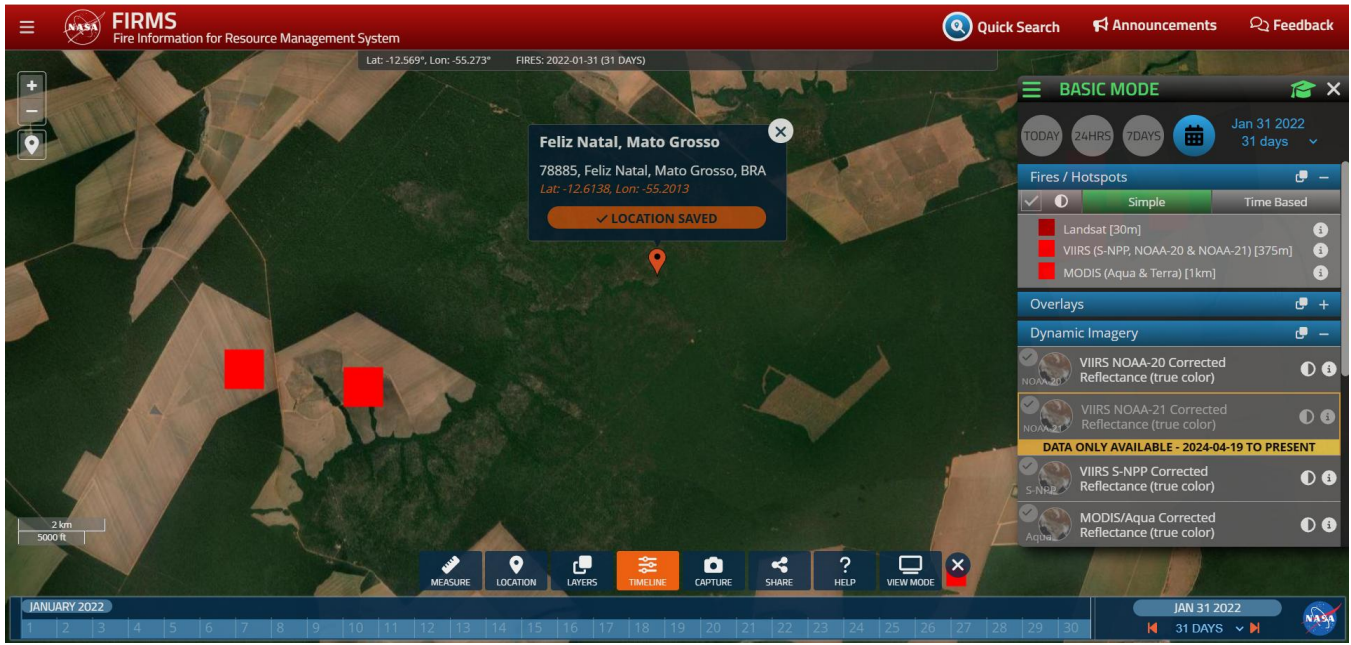
3.1-34: FIRMS NASA – October 2021.



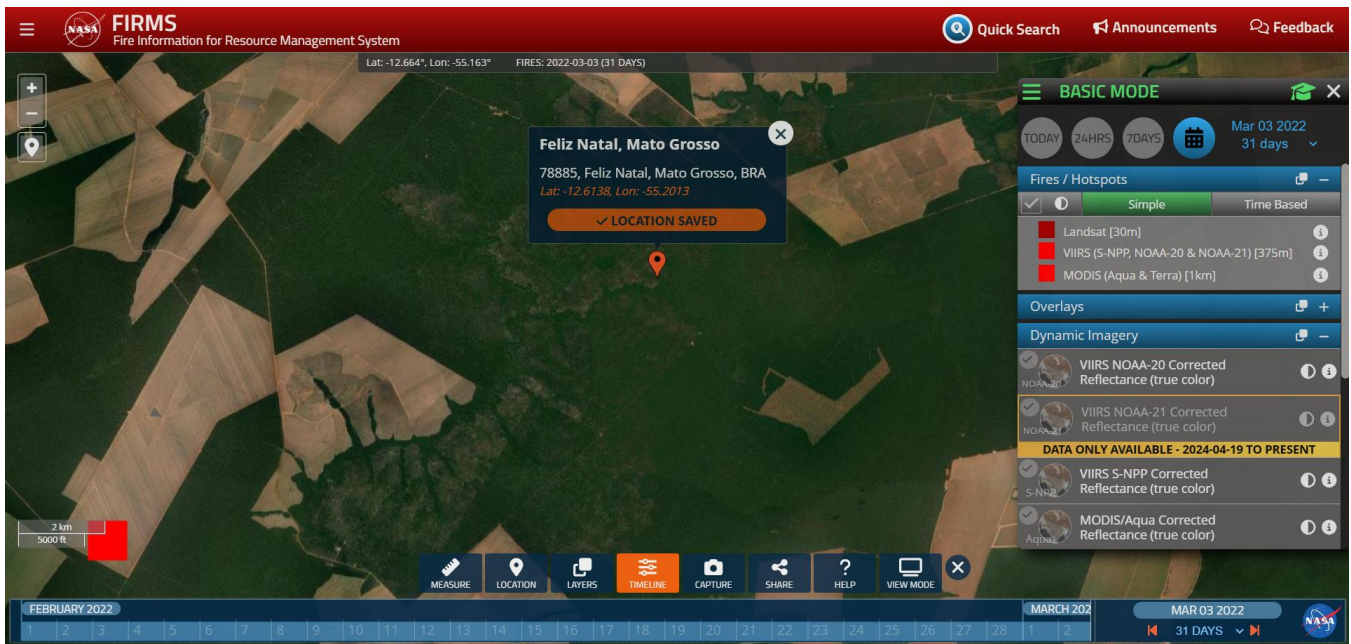
3.1-35: FIRMS NASA – November 2021.



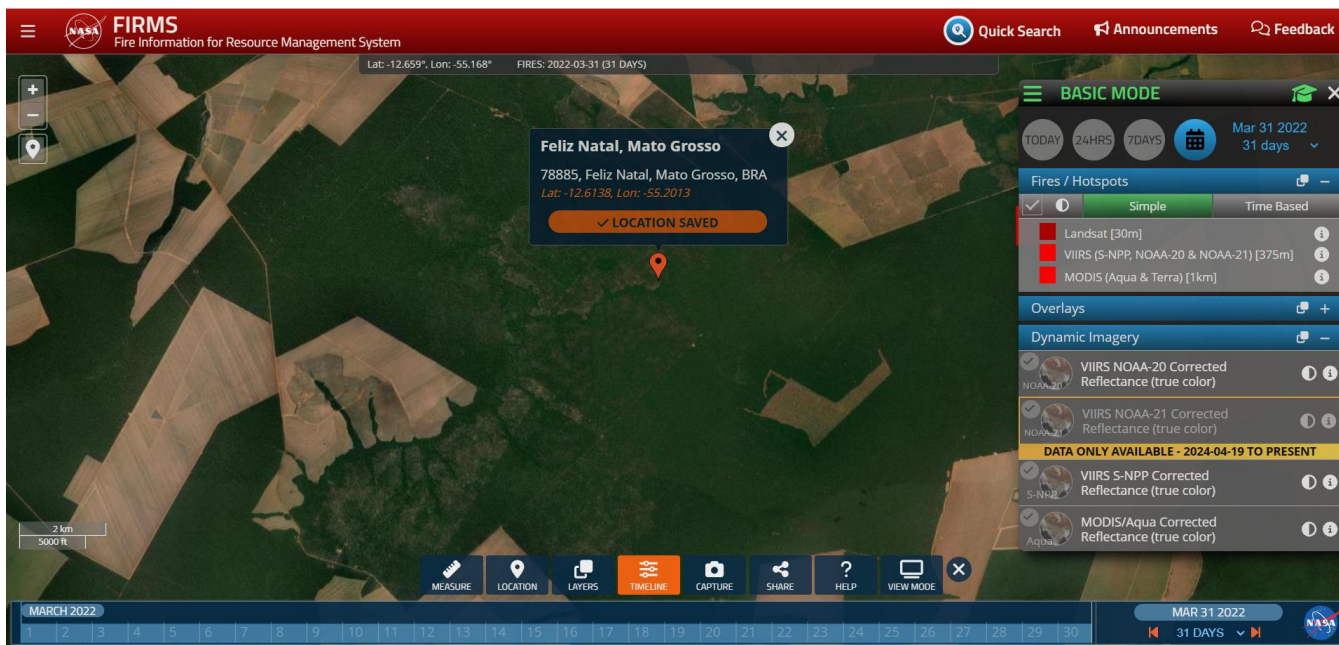
3.1-36: FIRMS NASA – December 2021.



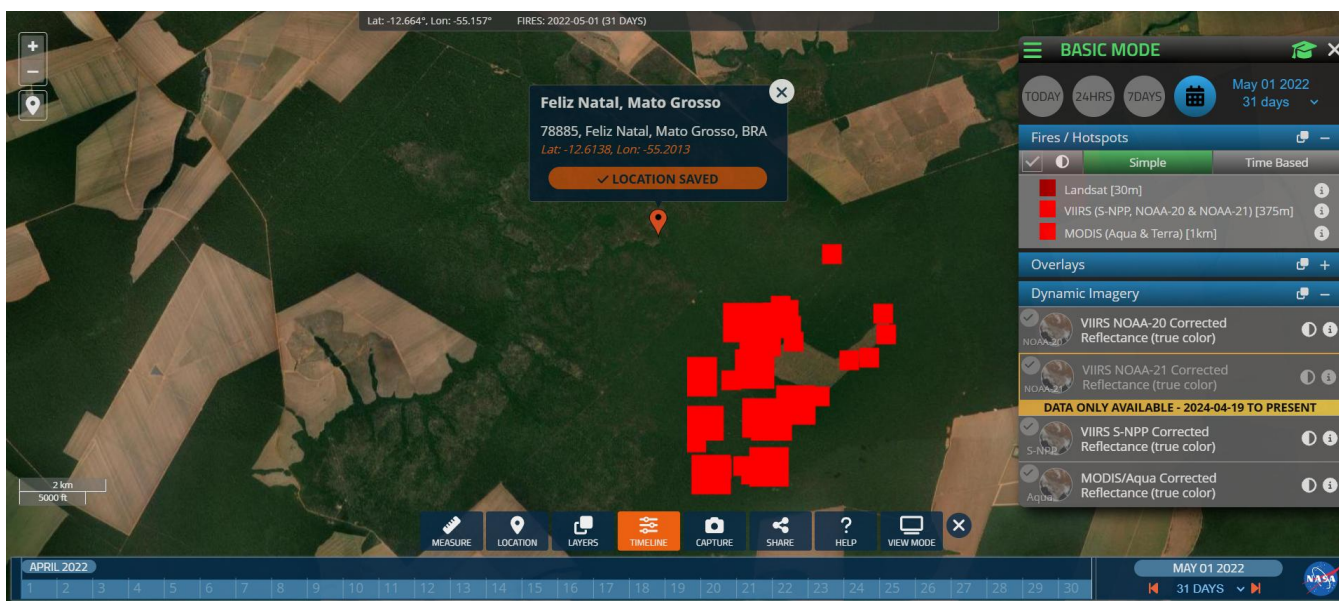
3.1-37: FIRMS NASA – January 2022.



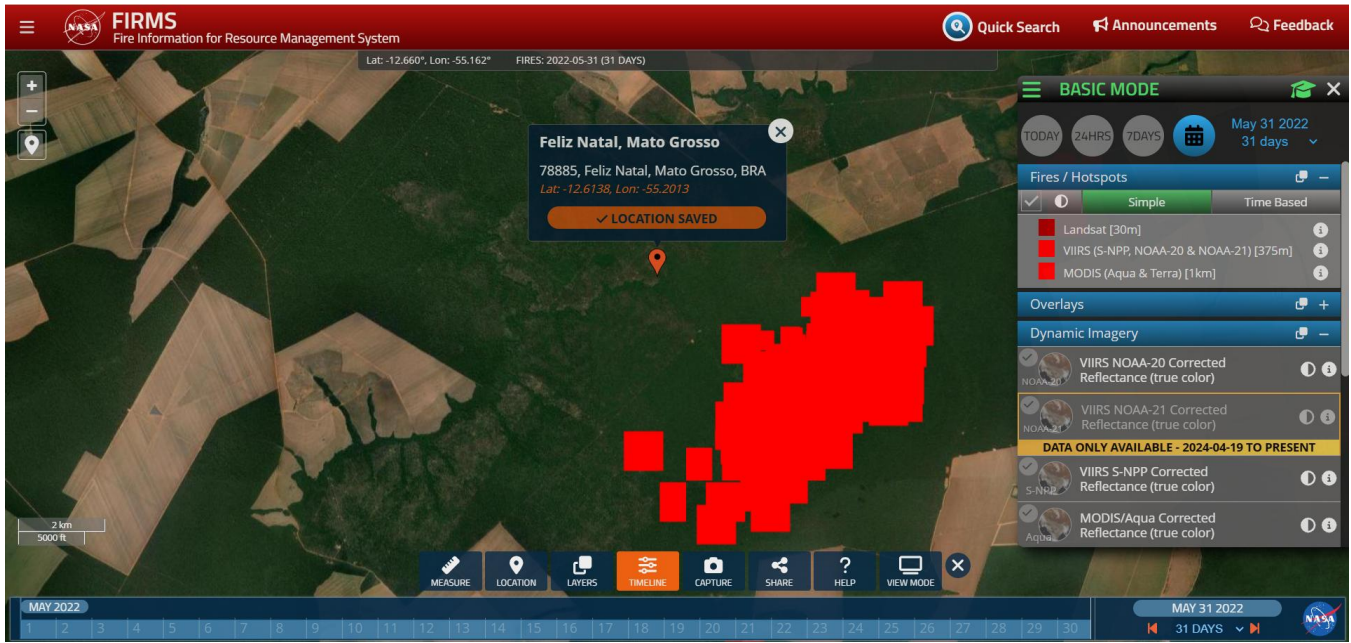
3.1-38: FIRMS NASA – February 2022.



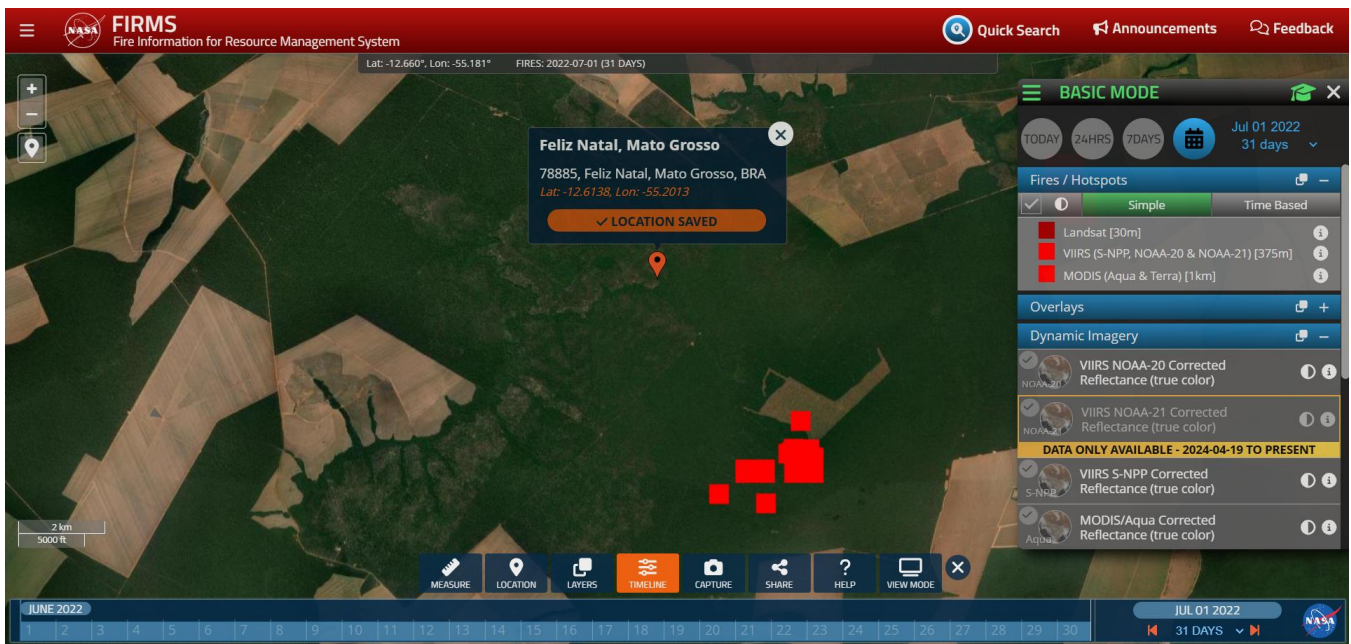
3.1-39: FIRMS NASA – March 2022.



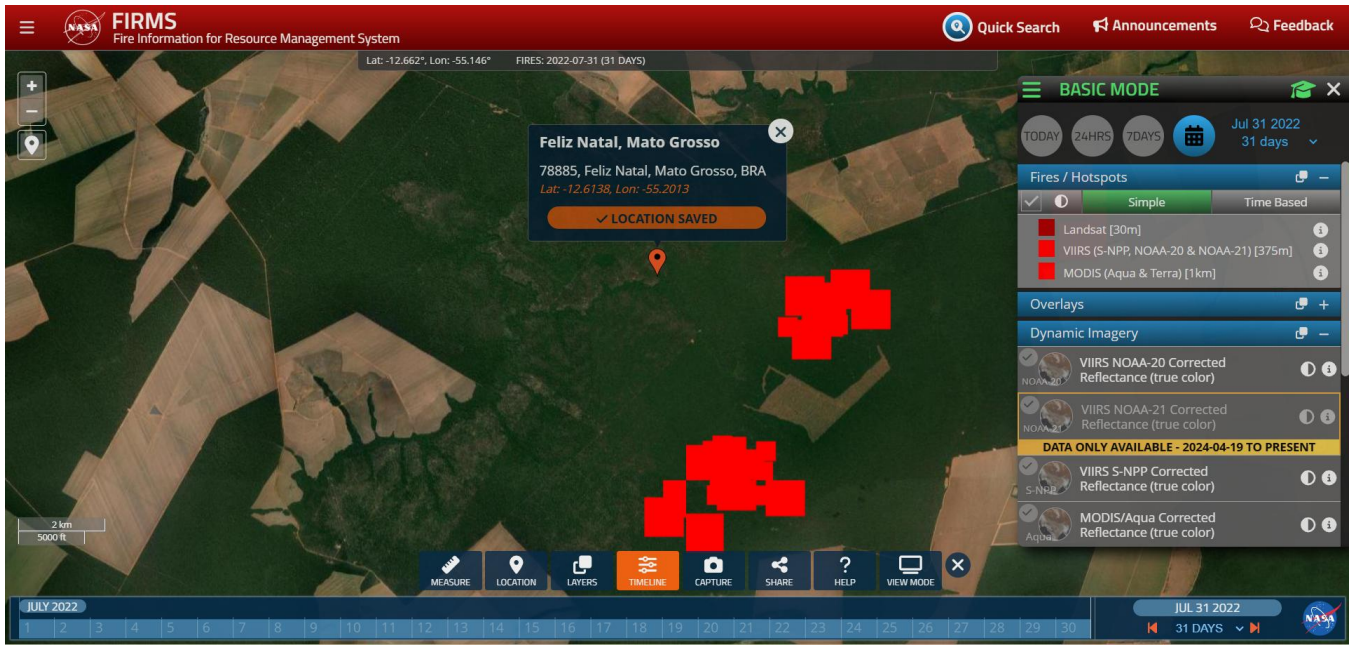
3.1-40: FIRMS NASA – April 2022.



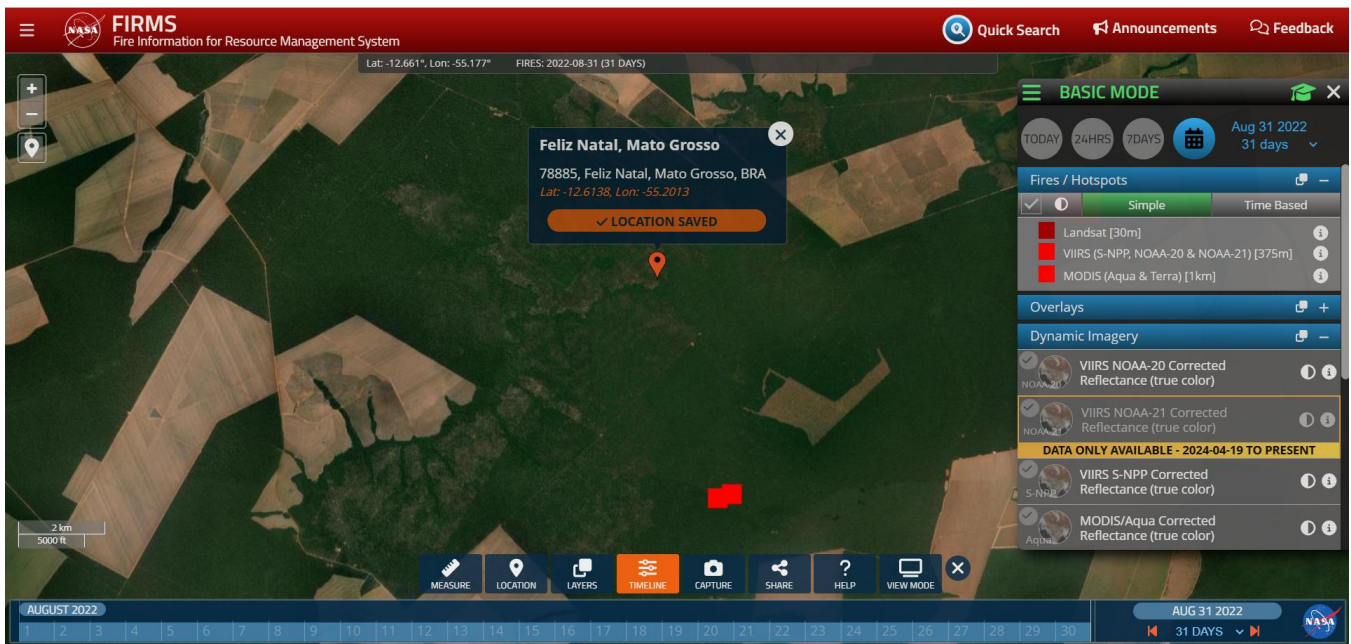
3.1-41: FIRMS NASA – May 2022.



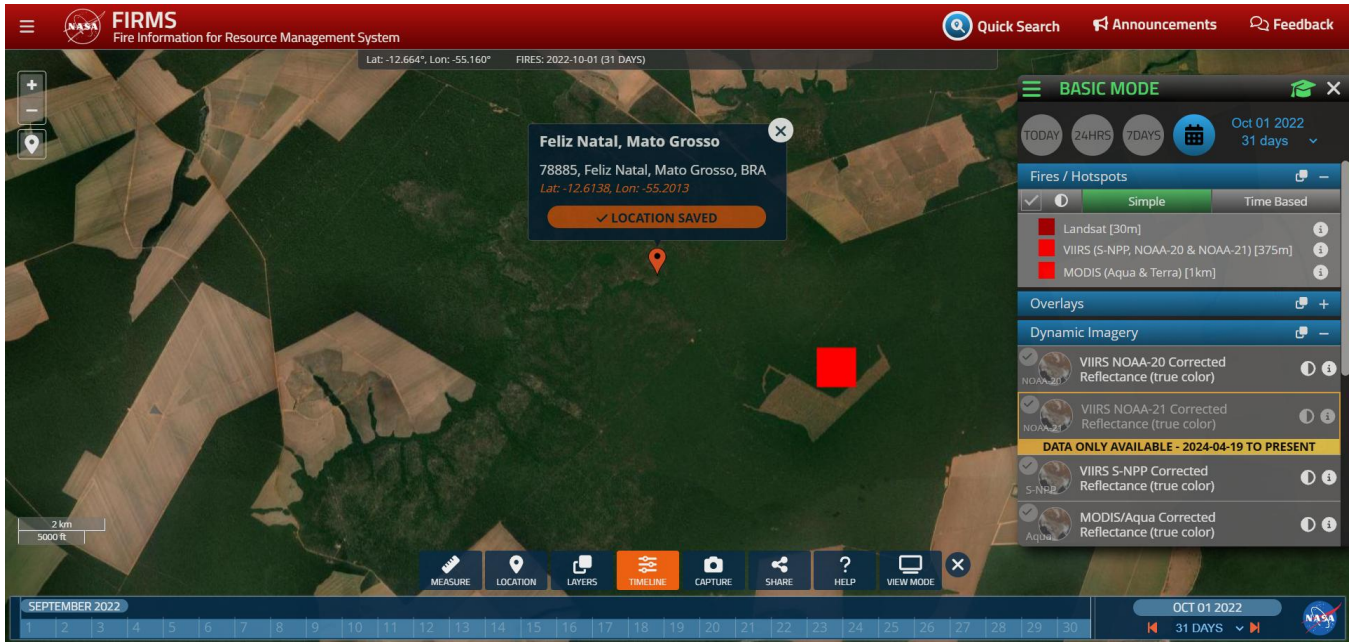
3.1-42: FIRMS NASA – June 2022.



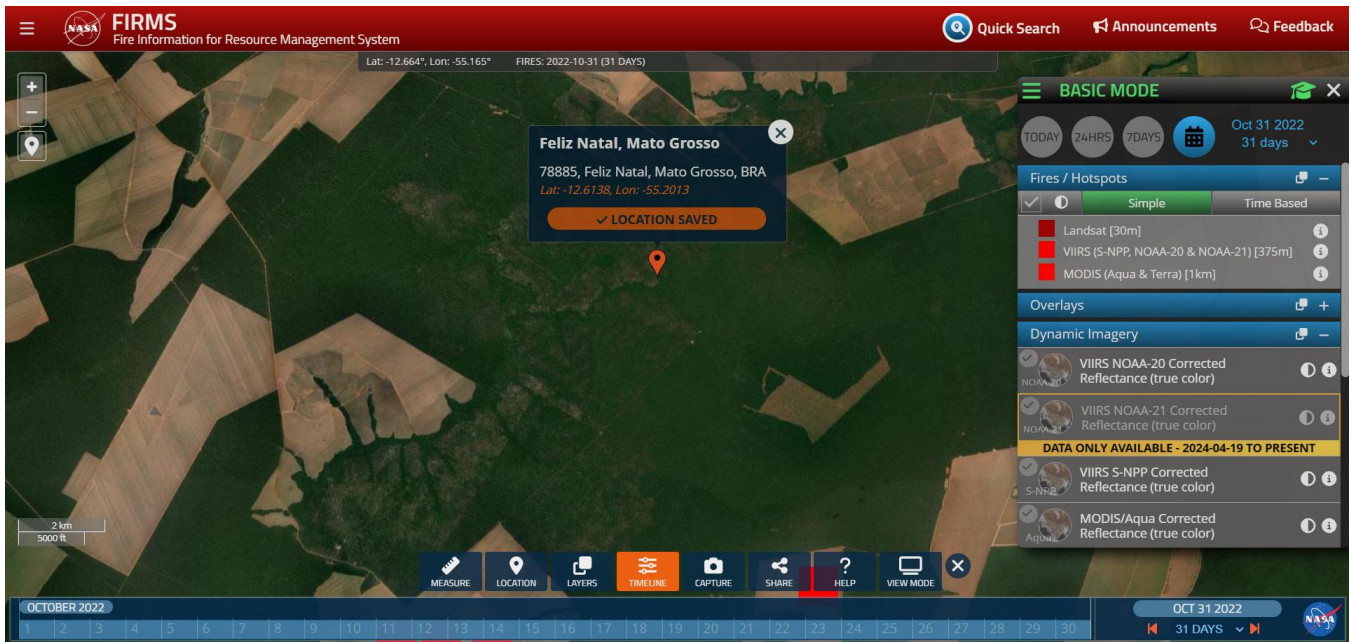
3.1-43: FIRMS NASA – July 2022.



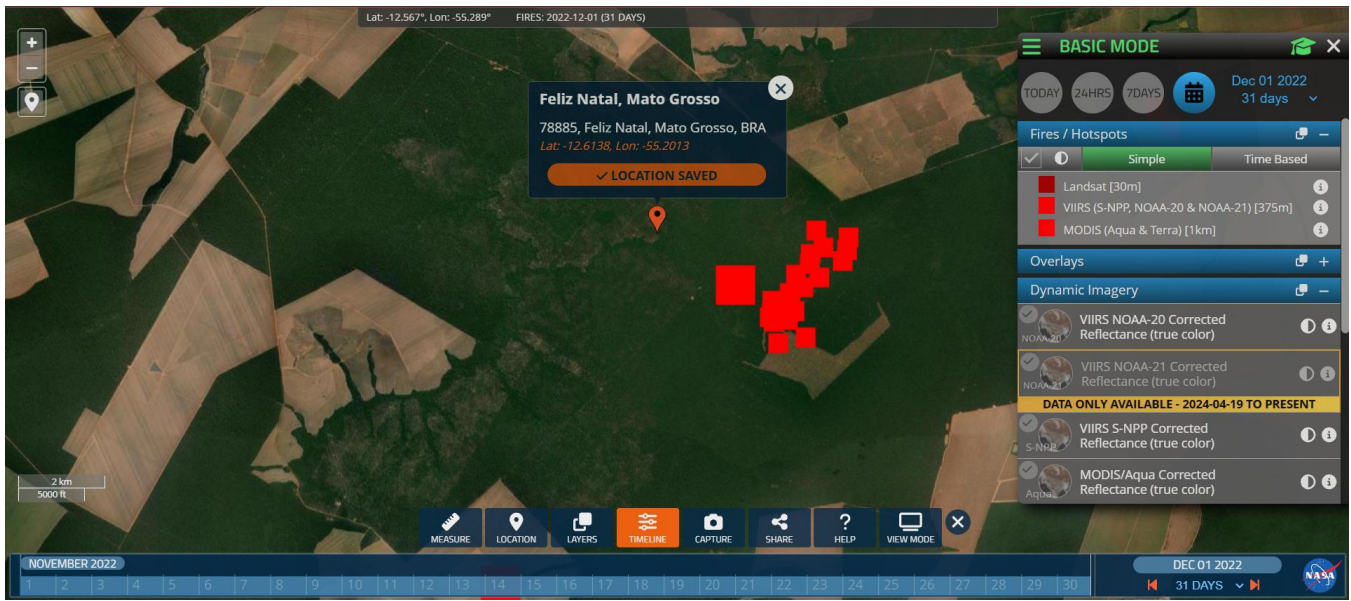
3.1-44: FIRMS NASA – August 2022.



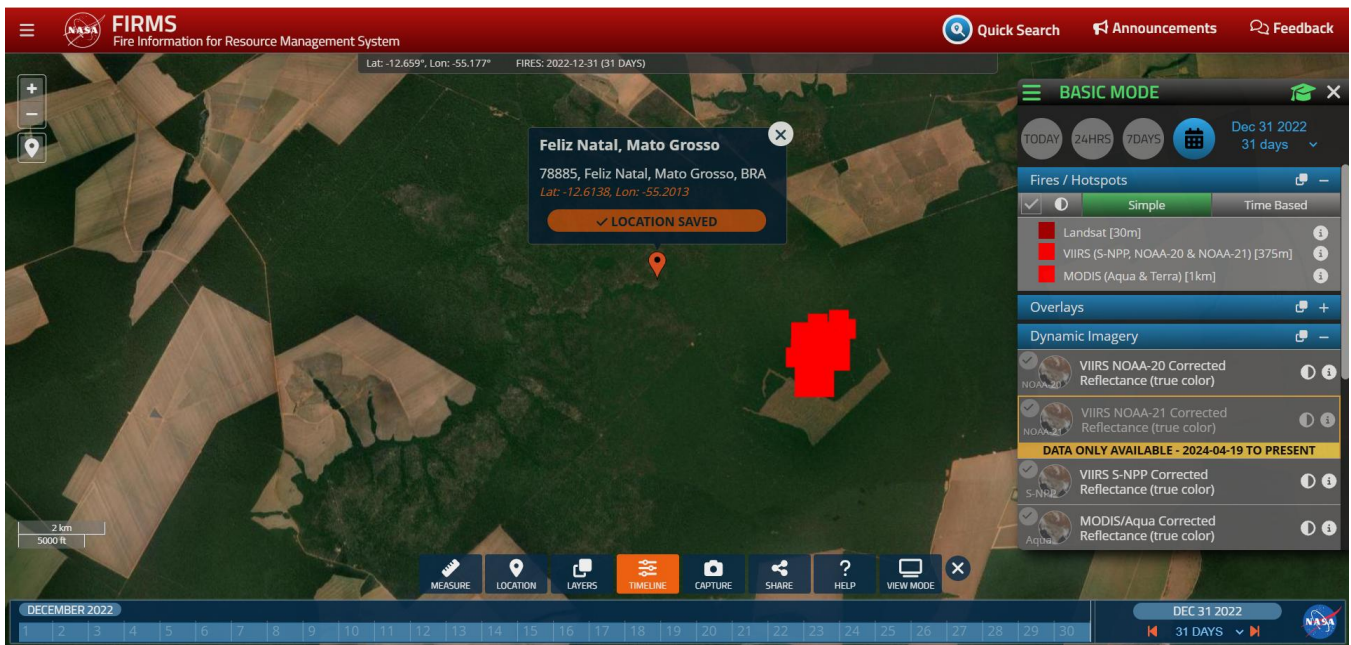
3.1-45: FIRMS NASA – September 2022.



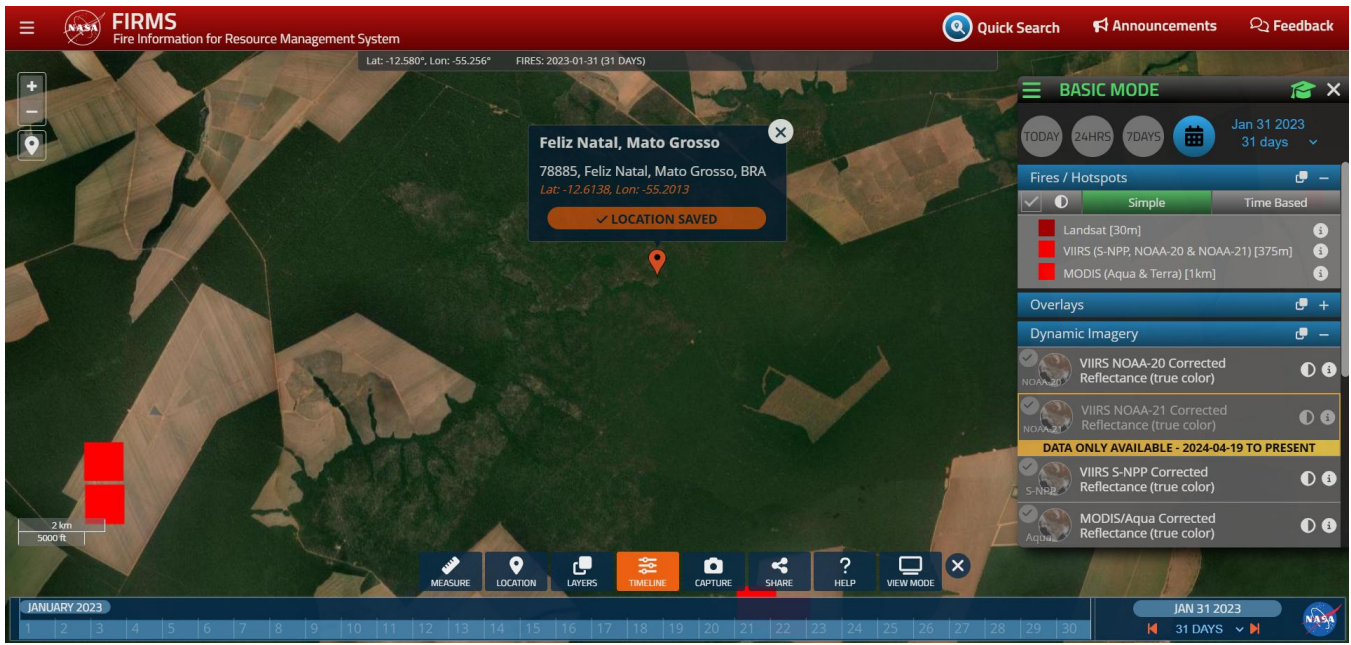
3.1-46: FIRMS NASA – October 2022.



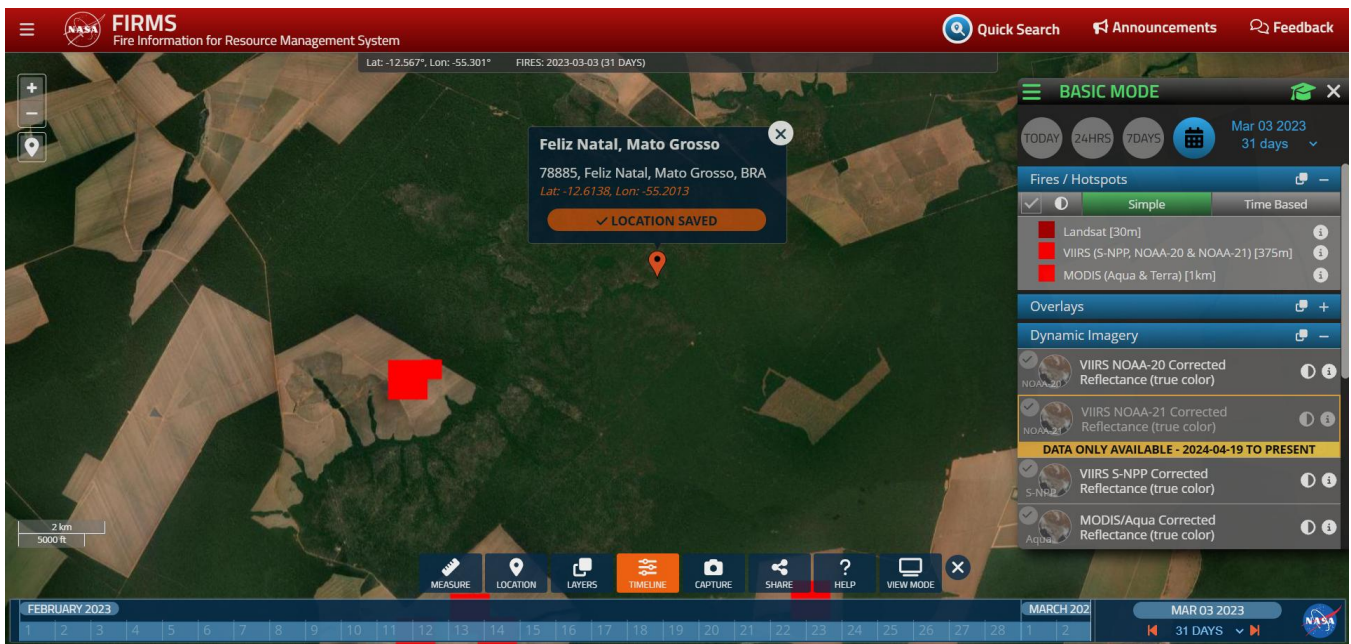
3.1-47: FIRMS NASA – November 2022.



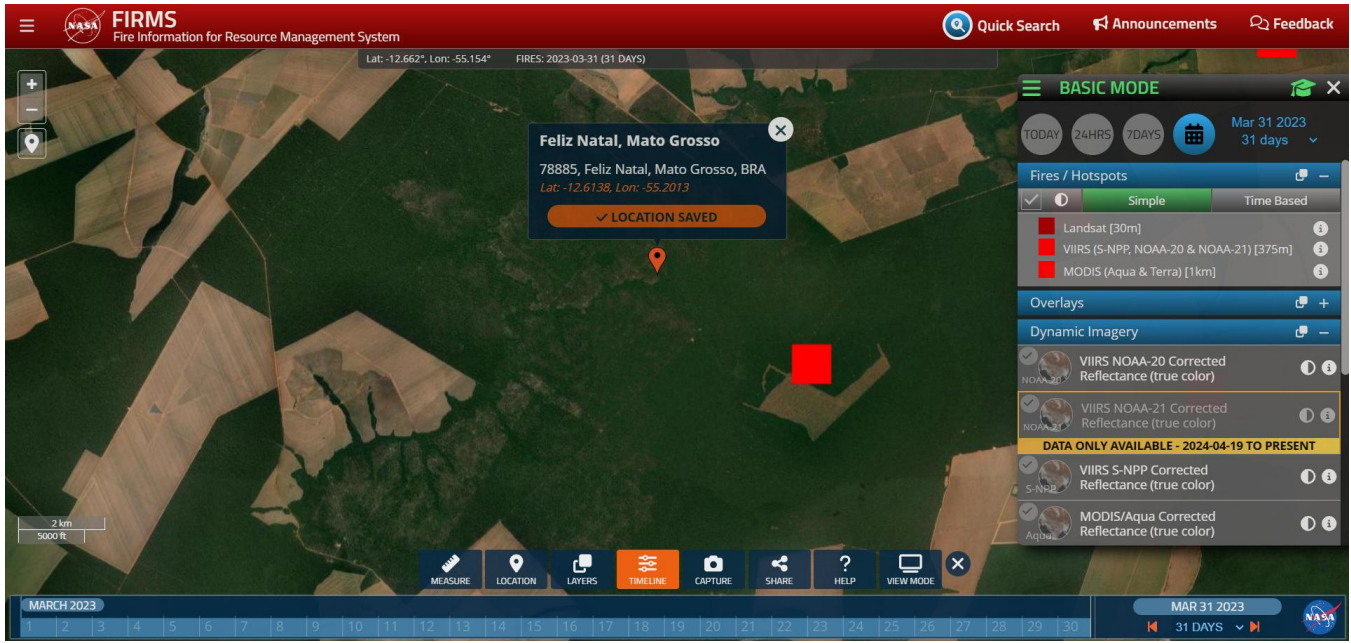
3.1-48: FIRMS NASA – December 2022.



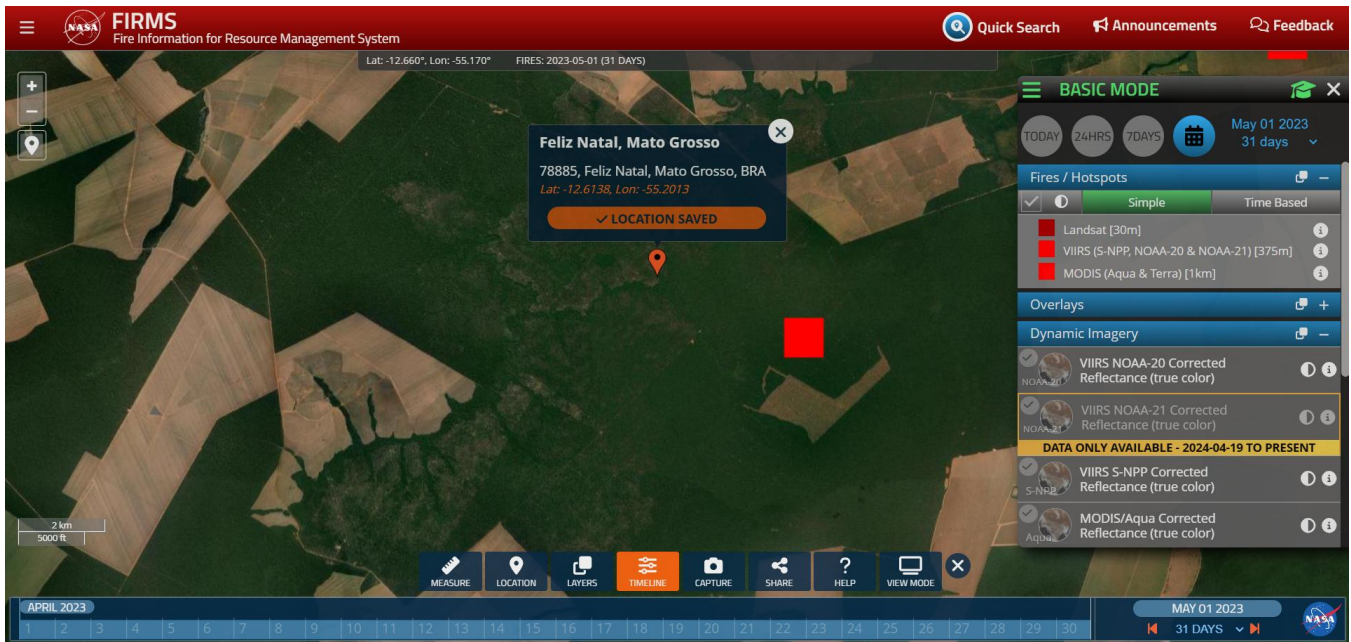
3.1-49: FIRMS NASA – January 2023.



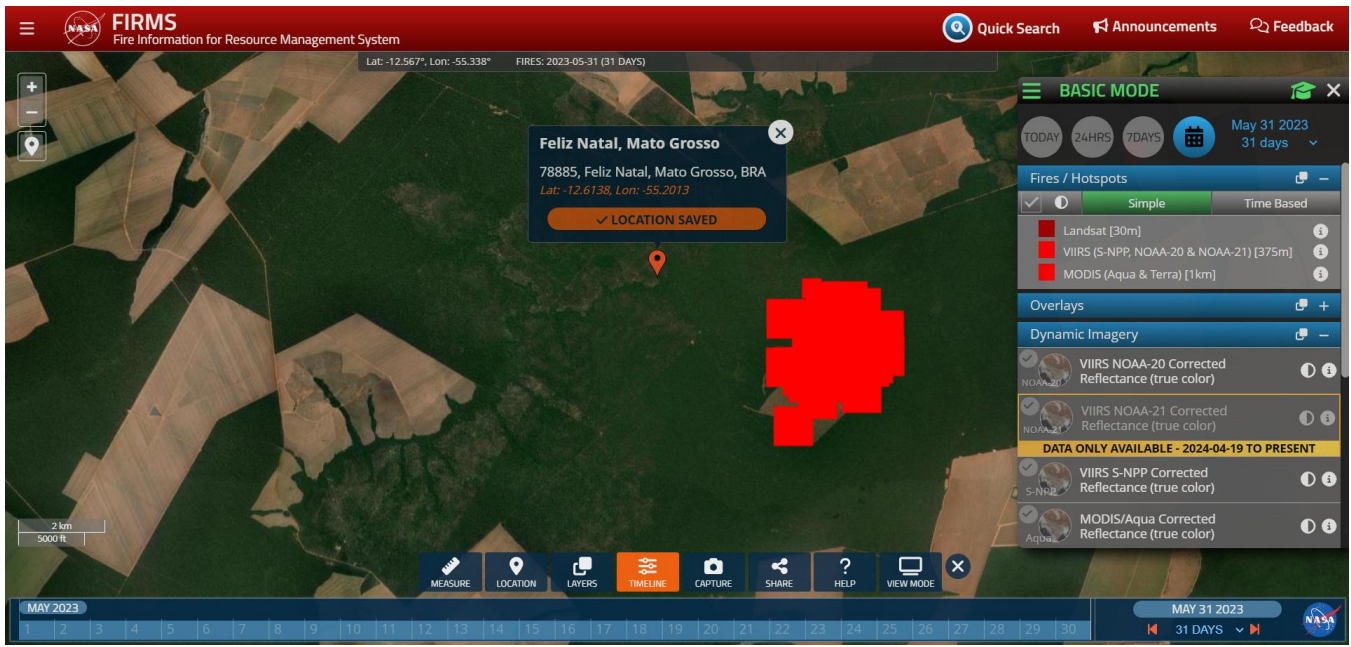
3.1-50: FIRMS NASA – February 2023.



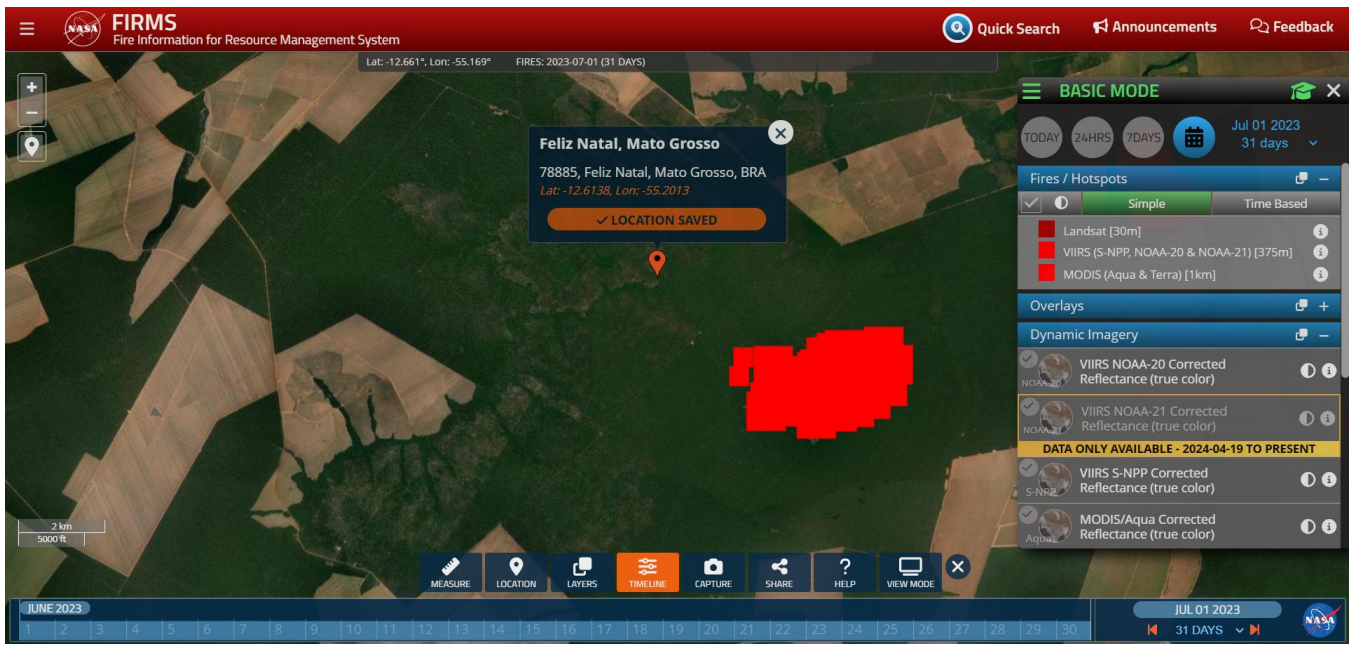
3.1-51: FIRMS NASA – March 2023.



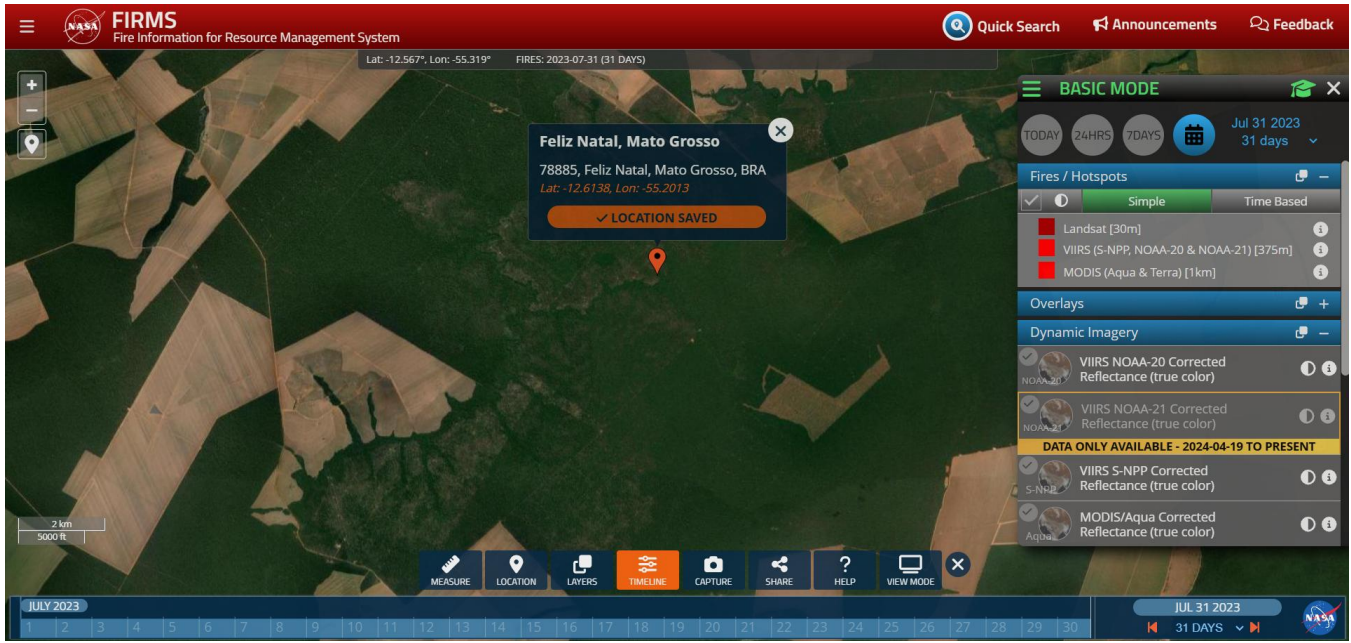
3.1-52: FIRMS NASA – April 2023.



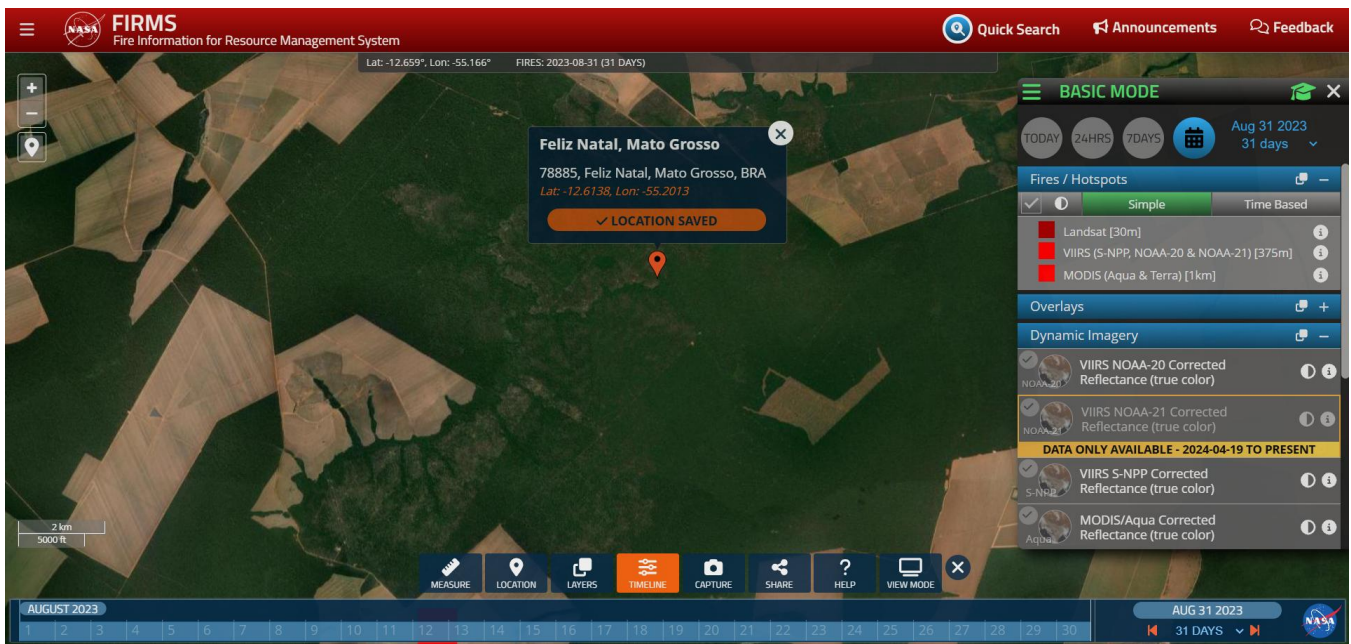
3.1-53: FIRMS NASA – May 2023.



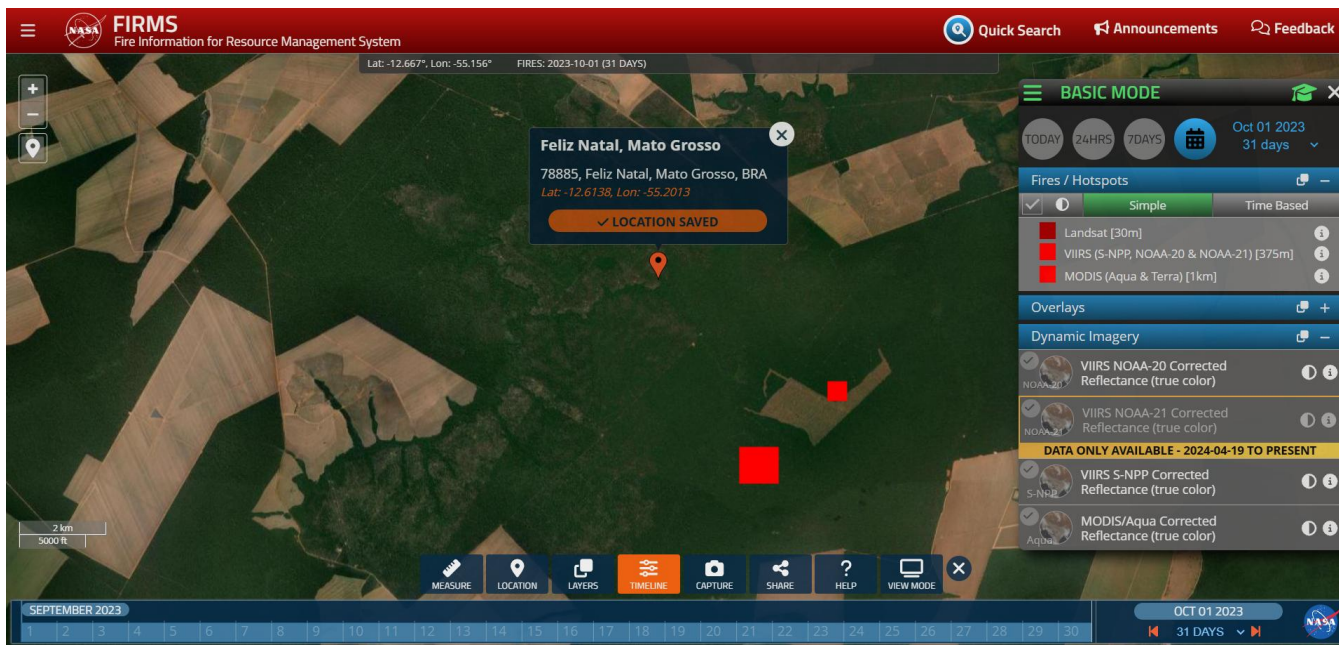
3.1-54: FIRMS NASA – June 2023.



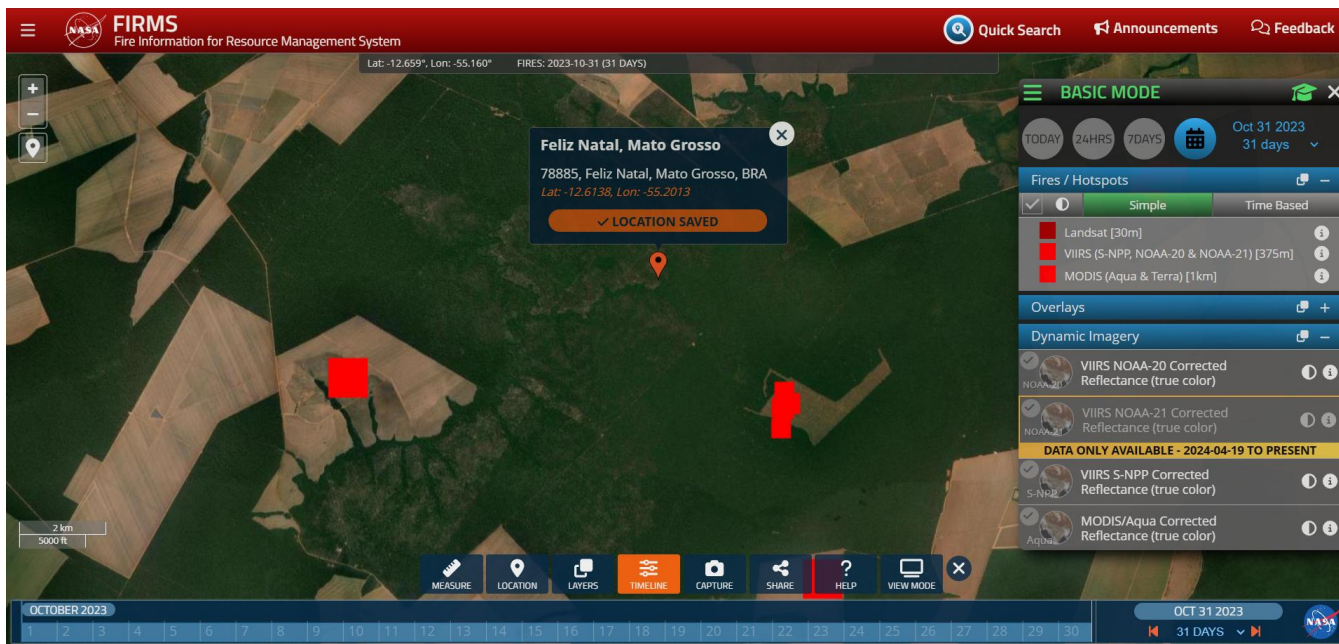
3.1-55: FIRMS NASA – July 2023.



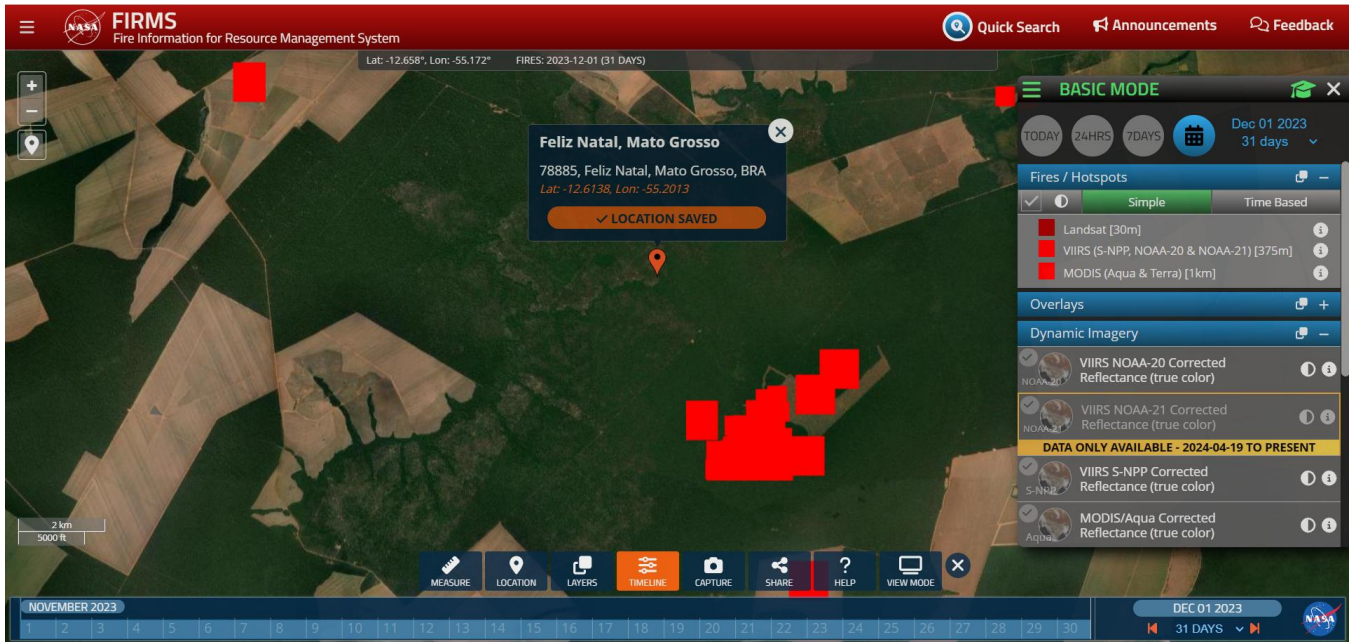
3.1-56: FIRMS NASA – August 2023.



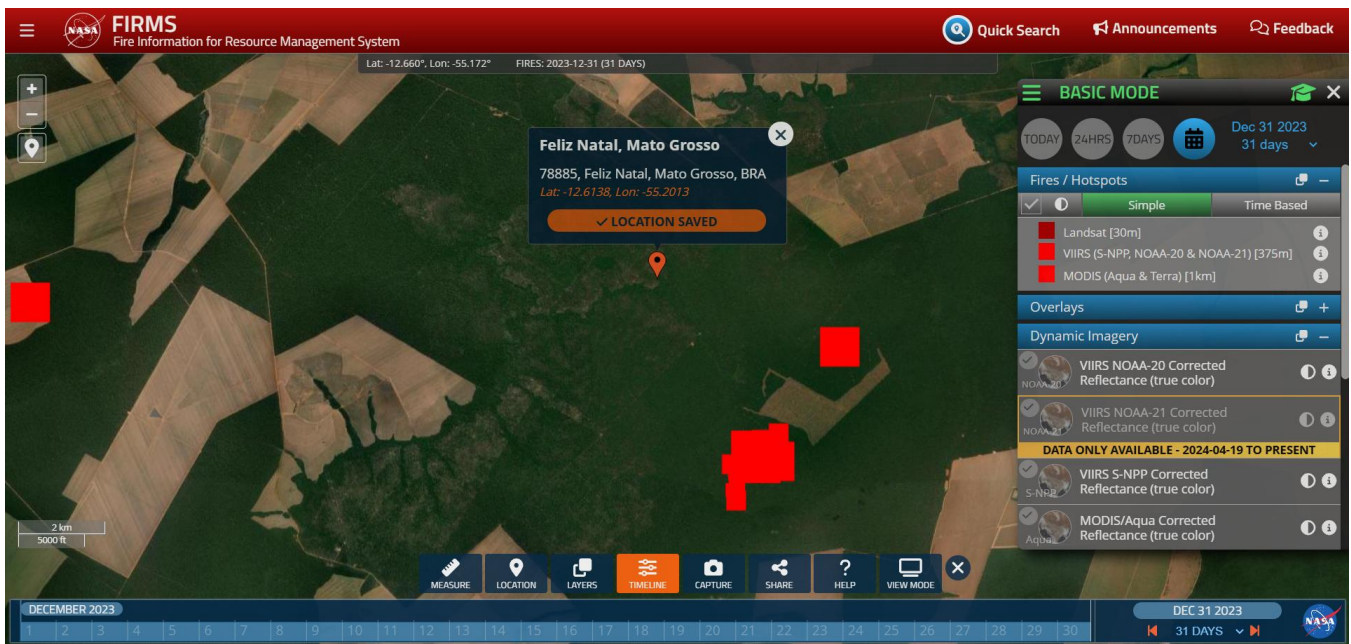
3.1-57: FIRMS NASA – September 2023.



3.1-58: FIRMS NASA – October 2023.



3.1-59: FIRMS NASA – November 2023.



3.1-60: FIRMS NASA – December 2023.

In conclusion, the most reliable platforms for fire monitoring are Global Forest Watch (GFW) and FIRMS NASA. It is understood that despite the fires, the vegetation remained as Forest Formation, with no change in land use. However, there was a change in its successional stage in a large part of the project area, changing from primary to secondary formation after the fire incident, before the project start date, as indicated in PDD v.12.

Biodiversity monitoring: The project's flora and fauna monitoring during the period relied on observations and characterization by the staff involved in routine conservation activities, with punctual observation, by the stakeholder employees and farm manager, in the period before 2023, and the use of camera trap for fauna in 2023 and on. The fauna campaigns were conducted in July 2023 (footprint active search) and August 2023 and on (passive monitoring by camera trap for at least 30 running days during each season of the year), to improve the accuracy of the characterisation and to update some previous identifications. For the development of the monitoring, to begin with, different points within the project area were tested in order to obtain the best initial result and, in 100% of the samples, a high diversity of animals were captured by the camera trap, especially large felines. All area of the project area has the same class of vegetation (Amazon Forest Formation), which implies a high probability of the same terrestrial fauna species circulating, thus requiring only one camera. The seasons for the region are divided into the Rainy Season (December to March), Transition Season (April and May), and Dry Season (June to September).

These efforts enabled the identification and classification of occurring species, which were summarised in a file attached to 1o. MR " annex\_Biodiversity-Faz\_J\_Crestani\_2023.xlsx.", containing a list characterising animals and vegetation within the project area, including names, species, origin, conservation status, and records, addressing biodiversity indicators to be further detailed in Section 6. More information can be found in Section 6, which contains the results of the relevant indicators, while the photographic records of this monitoring are included in the specific photographic records annex.

A more comprehensive biodiversity monitoring plan shall begin in 2024, involving strategically positioned camera trap and use of mobile application to identify bird song, which will allow for the enhancement or improvement of previously developed biodiversity monitoring activities. Additionally, a more specific flora monitoring was also designed, involving the allocation of plot (approximately 1,800.00 m<sup>2</sup> - 0.18 ha) within the project area to assess certain dendrometry parameters of key trees in the Legal Reserves, which will be presented in the next monitoring report.



**Image 3.1-61:** All the GPS points scored in the project area in 2023 for camera trap's allocations.



**Image 3.1-62:** Anta - *Tapirus terrestris* footprint. Author records, July-2023



**Image 3.1-63:** Tatu galinha - *Dasypus novemcinctus* footprint. Author records, July-2023



**Image 3.1-64:** Veado mateiro - *Mazama americana* footprint. Author records, July-2023



**Image 3.1-65:** Onça pintada - *Panthera onca* Footprints. Author records, July-2023



**Image 3.1-66:** Camera-trap installed in the project area (Author records, August-2023).



  FAZ\_J\_CRESTA 65°F 18°C ● 09/13/2023 03:22:07

**Image 3.1-67:** Onça parda - *Puma concolor*. Camera trap captures Author records, August to December 2023. Disregard image dates, monitoring started on August 2023.



  FAZ\_J\_CRESTA 74°F 23°C ● 10/04/2023 05:18:32

**Image 3.1-68:** Anta - *Tapirus terrestris*. Camera trap captures Author records, August to December 2023. Disregard image dates, monitoring started on August 2023.



FAZ\_J\_CRESTA

73°F 22°C



07/19/2023 22:00:19

**Image 3.1-69:** Jaguatirica - *Leopardus pardalis*. Camera trap captures Author records, August to December 2023. Disregard image dates, monitoring started on August 2023.



FAZ\_J\_CRESTA

75°F 23°C



07/20/2023 19:18:06

**Image 3.1-70:** Tamanduá Bandeira - *Myrmecophaga tridactyla*. Camera trap captures Author records, August to December 2023. Disregard image dates, monitoring started on August 2023.



  FAZ\_J\_CRESTA 79°F 26°C  07/15/2023 14:23:19

**Image 3.1-71:** Queixada - *Tayassu pecari*. Camera trap captures Author records, August to December 2023. Disregard image dates, monitoring started on August 2023.



  FAZ\_J\_CRESTA 88°F 31°C  01/08/2021 05:09:41

**Image 3.1-72:** Jacupemba - *Penelope superciliaris*. Camera trap captures Author records, August to December 2023. Disregard image dates, monitoring started on August 2023.



  FAZ\_J\_CRESTA 93°F 33°C  01/03/2021 21:41:37

**Image 3.1-73:** Gato mourisco - *Herpailurus yagouaroundi*. Camera trap captures Author records, August to December 2023. Disregard image dates, monitoring started on August 2023.



  FAZ\_J\_CRESTA 83°F 28°C  01/06/2021 04:24:22

**Image 3.1-74:** Veado mateiro - *Mazama americana*. Camera trap captures Author records, August to December 2023. Disregard image dates, monitoring started on August 2023.



FAZ\_J\_CRESTA

72°F 22°C



01/06/2021 14:43:26

**Image 3.1-75:** Onça pintada - *Panthera onca*. Camera trap captures Author records, August to December 2023. Disregard image dates, monitoring started on August 2023.



FAZ\_J\_CRESTA

72°F 22°C



01/07/2021 14:12:13

**Image 3.1-76:** Tatu galinha - *Dasypus novemcinctus*. Camera trap captures Author records, August to December 2023. Disregard image dates, monitoring started on August 2023.



**Image 3.1-77:** Jacamim de costas verde - *Psophia viridis*. Camera trap captures. Author records, August to December 2023. Disregard image dates, monitoring started on August 2023.



**Image 3.1-78:** Ave de rapina Camera trap captures. Author records, August to December 2023. Disregard image dates, monitoring started on August 2023.

In the vegetation near the area where the fire started in 2020 (Images below), the vegetation is low and dense, with an initial secondary stage character, with dominant pioneer trees with height between 5 and 10 m, difficult to move due to the presence of lianas and woody material affected by fire, low canopy coverage, high incidence of light, presence of grassy forage vegetation, medium quantity of litter, with low variety of native species, without presence of exotic species, high presence of native regenerants in development and colonizers of degraded environments, such as Embaúba.



**Image 3.1-79:** Vegetation near the area where the fire started in 2020.



**Image 3.1-80:** Vegetation near the area where the fire started in 2020.



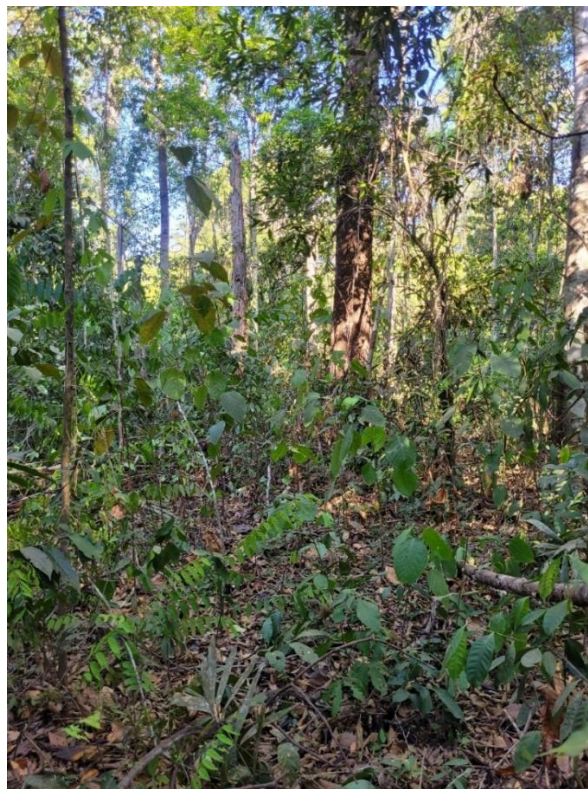
**Image 3.1-81:** Vegetation near the area where the fire started in 2020.

The vegetation in the center of the project area (Images below), in an area where the fire occurred before 30-September-2020, has characteristics of secondary vegetation in an advanced stage, with a moderate density of tree individuals, with height of 30 meters, straight and single trunks, with old species remaining with DBH above 50 cm, difficult to move around the site due to the understory in formation, fallen woody material and lianas, with high canopy cover, small rounded canopies, moderate incidence of light, presence of grassy

forage vegetation, high amount of litter, with satisfactory varieties of native species (over 10) and high presence of well-developed regenerants in height.



**Image 3.1-82:** Vegetation of the plot in the center of the project area.



**Image 3.1-83:** Vegetation of the plot in the center of the project area.

Regarding social and environmental components of the project, significant measures have been taken and Section 6, which deals with social, human, financial, natural, biodiversity and carbon aspects, details the relative progress more precisely. Files and documents related to evidence of monitoring of indicators were made available attached to this report.

The initial actions planned to achieve the SDGs were related to social, environmental and economic surveys and diagnoses. Nevertheless, the social aspects of the carbon credit project have not yet been fully evaluated. Through a partnership between the project proponent and the Instituto Homem Pantaneiro (IHP), socio-environmental assessments will be conducted to gather data for guiding specific actions that will meet the selected project indicators, taking into account the UN Sustainable Development Goals (SDGs).

According to the SDG compliance overview spreadsheet (annex\_SDG\_Verification2023\_Faz\_J\_Crestani.xlsx), project have met 3 (total of 9) proposed SDGs in accordance with the PDD last version. The achieved ones are:

- 8 - Decent Work and Economic Growth;
- 13 - Climate Action;
- 15 - Life on Land.

Regarding the SDG 8 - Decent Work and Economic Growth, the project manager purchased PPE for the employees of the Stakeholder Fazenda Palmasola and the PP acquired a drone and a camera trap for periodic monitoring of the project area, as per receipts in the annex "annex\_Project-Activities", images in the annex "H-008 Equipment and infrastructure" and image 3.1-66 in the MR. Fazenda Palmasola, a Stakeholder of the project, maintains signs on its facilities with information on occupational health and safety (SDG 8 - Decent Work and Economic Growth), as demonstrated in images in the appendix "H-008 Equipment and infrastructure". Regarding job creation, a drone company was hired to monitor the project area when the PP drone was unavailable, as per document "Drone.pdf" (annex\_Product-Invoice-20-23). The project has at least 1 biodiversity monitoring method in the project area with plans to introduce another method (remote or not). At least 3 big cats of total of 12 mammals recorded ("annex\_Biodiversity-Faz\_J\_Crestani\_2023.xlsx") in the project area were observed, demonstrating that the proposed SDG is being met (SDG 15 – Life on Land). All actions developed lead to the conservation of biodiversity in the project area and the mitigation of climate change, in line with the SDG 13 - Climate Action.

The not achieved SDG are:

- 1 - No Poverty;
- 3 - Good health and well-being;
- 9 - Industry, Innovation and Infrastructure;

- 10 - Reduce inequalities;
- 11 - Sustainable Cities and Communities;
- 12 - Responsible consumption and production.

The actions developed in relation to the not achieved aforementioned SDGs will be reported in the subsequent Monitoring Report.

In order to contribute to the SDGs, we intend to strengthen relations with stakeholders through new rounds of meetings for those who already contribute to the project, in addition to a new invitation for those with whom we have not yet managed to align agendas, especially with Educational and Research Institutions. The IHP stakeholder will develop social diagnostic actions, ensuring that 100% of the information will be obtained and used to direct social and economic initiatives aimed at maintaining a safe workplace in compliance with labor legislation (SDG 8 – Decent work and economic growth), reducing by 25% possible inequalities (SDG 10 – Reduce inequalities) and propose alternative income sources actions (SDG 1 – No Poverty) among 100% of the employees of the Fazenda Palmasola Stakeholder. Also, future actions to carry out a specifically training action related to each theme health, education, occupational health and safety, at least once a year (SDG 3 – Good health and well-being and SDG 11 – Sustainable Cities and Communities). The social diagnosis makes it possible to generate at least one direct job related to the project area and develop actions exclusively for women and children at the Palmasola Farm Stakeholder. The achievement of the objective will be measured through the KPI "Percentage of actions objectives achievement" and by the KPI "Generation of new jobs". Finally, 10% of the resources from the carbon credits project will go to social activities related to IHP.

With respect to SDG 13 - Climate Action, environmental education, sustainable practices and equipment handling will be reinforced through annual training sessions (PP responsibly) to the Stakeholder Fazenda Palmasola employees. Additionally, regular environmental and land compliance monitoring will be maintained (Property owner), ensuring the preservation of biodiversity and the mitigation of environmental impacts.

Conducting at least one biodiversity research initiative in partnership with research institutions and implementing at least one additional biodiversity monitoring method (remote or otherwise) in the project area (SDGs 15 – Life on Land and 9 – Industry, Innovation and Infrastructure) and introducing at least one on-site vegetation sampling method to enhance environmental impact assessments and ecosystem conservation efforts (SDGs 13 – Climate Action and 15 – Life on Land).

Partnership with Educational and Research Institutions will be developed. The prospect is that a new partnership will be established to carry out biodiversity research (SDG 15 – Life on land) in the project area, and obtain investment in development of the environmental multiparametric station – EMA to improve the efficiency and effectiveness of monitoring the carbon credit project (SDG 9 – Industry, Innovation and Infrastructure).

Enhancing project visibility and public awareness about climate change by carrying out at least 3 promotional actions on social networks (PP and property owner) and PP hosting one lecture/training session at universities about project performance and sustainability strategies (SDG 12 – Responsible consumption and production and SDG 13 – Climate Action). That leads to aim to increasing the project's profitability and impact by targeting a 50% growth in company profits and visibility through carbon credit revenue, leading to job creation and better conditions for employees (SDG 8 – Decent work and economic growth).

We recognize the importance of this analysis for the success and sustainability of the project. We are committed to developing a comprehensive analysis of these social dimensions, ensuring they are considered in the project's evolution. The goal is to understand and integrate social impacts thoughtfully, aiming to meet the expectations of all stakeholders and ensure that the project is conducted in an inclusive and responsible manner, contributing to long-term social benefits.

As supported in PDD v.12, this project does not include leakage emissions. However, it should be noted that measures listed above are directly related to the factors surveyed in Non-Permanence Risk analysis, such as: item “a” of Section 3 (Natural Risk), that relates to Fire events possibility. Remote monitoring, fencing and firebreaks maintenance are ongoing to prevent fires. Also, an Emergency Attendance Plan (EAP – PAE, in Portuguese) was written to lead the actions.

Even though certain risks, such as cattle invasion and the spread of exotic species, are considered low concerning the integrity of the vegetation regarded as a carbon reservoir in this project, the monitoring and control of these measures are conducted through periodic inspections by farm local stakeholder employees during routine activities, as previously explained.

Consequently, the Natural Resource N-010 Environmental Impacts and N-016 Monitoring Methods indicators will reflect the measures adopted in this project in potential follow-ups and the results obtained. The first indicator should reveal the status of the vegetation over the years, noting whether there has been any change in the classified use of the vegetation – a factor directly related to the quantification of carbon removed – as well as the vegetative vigour of the same, which will be detailed in the relevant section.

## 3.2 Deviations

### 3.2.1 Methodology Deviations

No methodology deviations were performed. Methodology was applied in its integrity.

### 3.2.2 Project Description Deviations

Not applicable. No project description deviations applied for the monitoring period and report.

## 4. Data and Parameters

### 4.1 GHG Emission Data and Parameters Available at Validation

<b>Data / Parameter</b>	Annual carbon incrementation parameters
<b>Data unit</b>	tC/ha
<b>Description</b>	Annual increase in biomass (tC/ha) of managed primary and secondary forest vegetation, by biome
<b>Source of data</b>	BRAZIL. MCTI – Ministry of Science, Technology and Innovation. Brazil's National Communication to the United Nations Framework Convention on Climate Change
<b>Value applied</b>	Amazon - Primary forest formation: 0.43 Amazon - Secondary forest formation: 4.96
<b>Justification of choice of data or description of measurement methods and procedures applied</b>	Adoption of annual carbon incrementation parameters for the managed forest vegetation in Brazilian biomes, as presented in the most recent version of Brazil's National Communication to the United Nations Framework Convention on Climate.
<b>Purpose of Data</b>	Calculating the project CO <sub>2</sub> removal
<b>Comments</b>	Although we have available the Fourth National Communication of Brazil to UNFCCC, it was used the data available in the Third National Communication of Brazil to UNFCCC, since the most recent version does not present relevant data for annual carbon increment parameters by biomes.

<b>Data / Parameter</b>	GWP <sub>N<sub>2</sub>O</sub>
<b>Data unit</b>	tonnes CO <sub>2</sub> e per tonne N <sub>2</sub> O (tCO <sub>2</sub> e/tN <sub>2</sub> O)

<b>Description</b>	Global warming potential of nitrous oxide
<b>Source of data</b>	IPCC Sixth Assessment Report - CHAPTER 7 SUPPLEMENTARY MATERIAL (IPCC, 2021)
<b>Value applied</b>	273
<b>Justification of choice of data or description of measurement methods and procedures applied</b>	The SOCIALCARBON Standard requires that N <sub>2</sub> O is converted to CO <sub>2</sub> e using the 100-year global warming potential derived from the most recent IPCC Assessment Report.
<b>Purpose of Data</b>	Calculation of project emissions
<b>Comments</b>	-

<b>Data / Parameter</b>	GWP <sub>CH<sub>4</sub></sub>
<b>Data unit</b>	tonnes CO <sub>2</sub> e per tonne CH <sub>4</sub> (tCO <sub>2</sub> e/tCH <sub>4</sub> )
<b>Description</b>	Global warming potential of methane
<b>Source of data</b>	IPCC Sixth Assessment Report - CHAPTER 7 SUPPLEMENTARY MATERIAL (IPCC, 2021)
<b>Value applied</b>	28
<b>Justification of choice of data or description of measurement methods and procedures applied</b>	The SOCIALCARBON Standard requires that CH <sub>4</sub> is converted to CO <sub>2</sub> e using the 100-year global warming potential derived from the most recent IPCC Assessment Report.
<b>Purpose of Data</b>	Calculation of project emissions
<b>Comments</b>	Value was conservatively round up from 27.9 – value found in IPCC Sixth Assessment Report.

## 4.2 GHG Emission Data and Parameters Monitored

<b>Data / Parameter</b>	Area per class of vegetation cover
<b>Data unit</b>	Hectare (ha)
<b>Description</b>	Area per class of vegetation cover within the project area
<b>Source of data</b>	MapBiomass – Collection 9 or above (MAPBIOMAS, 2024); Phytophysionomies (IBGE, 2019) or more updated related to this classification
<b>Description of measurement methods and procedures to be applied:</b>	Calculating the area (hectares) of the classes of vegetation cover in the adopted reference base, using the GIS software's field calculator (“\$area/10000” expression) using the methodology reference detailed in Section 5 – Project Boundary (page 11)
<b>Frequency of monitoring/recording:</b>	Annual
<b>Value monitored</b>	<p><u>2020</u> Primary forest formation: 999.904 ha Secondary forest formation: 2,743.951 ha</p> <p><u>2021</u> Primary forest formation: 999.904 ha Secondary forest formation: 2,737.142 ha</p> <p><u>2022</u> Primary forest formation: 999.642 ha Secondary forest formation: 2,736.793 ha</p> <p><u>2023</u> Primary forest formation: 999.554 ha Secondary forest formation: 2,742.031 ha</p>
<b>Monitoring equipment</b>	GIS software QGIS 3.34.13-Prizren
<b>QA/QC procedures to be applied:</b>	An accuracy analysis shall be applied to the classification of the reference base adopted for the project, through reclassification by photo interpretation of georeferenced images with 30 m spatial resolution or better. A minimum 90% match must be attained. In the event that a figure of less than 90% is obtained, the land use and cover must be classified by means of remote sensing, using orbital imaging, by a fully trained and duly qualified professional.

<b>Purpose of data:</b>	Calculating the project CO <sub>2</sub> removal
<b>Calculation method:</b>	Using the GIS software's field calculator (“\$area/10000” expression).
<b>Comments:</b>	Relevant datasets/remote imagery will be uploaded onto the SOCIALCARBON Registry to facilitate independent reviews of the recorded project outcomes.

<b>Data / Parameter</b>	BAPA <sub>y</sub>
<b>Data unit</b>	Hectare (ha)
<b>Description</b>	Burned area within the project area at year y
<b>Source of data</b>	Remote sensing data and GIS Local management team and field data MapBiomass <sup>9</sup>
<b>Description of measurement methods and procedures to be applied:</b>	In addition to field data from the management team, the following sources will also be monitored: - INMET <sup>10</sup> - INPE <sup>11</sup>
<b>Frequency of monitoring/recording:</b>	Annual
<b>Value monitored</b>	Annual total fire scars area (within project area) 30 September 2020 to 31 December 2020: 0.00 ha 2021-2023: 0.00 ha
<b>Monitoring equipment</b>	GIS software QGIS 3.34.13-Prizren
<b>QA/QC procedures to be applied:</b>	Best practices in remote sensing and GIS must be applied. Furthermore, the following sources will be also monitored to confirm the data obtained from remote sensing and GIS: - INMET

<sup>9</sup> MAPBIOMAS. Available at: <https://brasil.mapbiomas.org/>

<sup>10</sup> INMET. Instituto Nacional de Meteorologia (National Institute of Meteorology in Portuguese). Available at: <https://portal.inmet.gov.br/>.

<sup>11</sup> INPE. Instituto Nacional de Pesquisas Espaciais (National Institute for Space Research in Portuguese) Available at: <http://www.inpe.br/>.

	<ul style="list-style-type: none"> <li>- INPE</li> <li>-MapBiomias</li> <li>- Field data from the management team</li> </ul> <p>An accuracy analysis shall be applied to the detection of the burned area within the project area, through reclassification by photo interpretation of georeferenced images with 30 m spatial resolution or better. A minimum 90% match must be attained. In the event that a figure of less than 90% is obtained, the burned area must be detected by means of remote sensing, using orbital imaging, by a fully trained and duly qualified professional</p>
<b>Purpose of data:</b>	This parameter is used to calculate project emissions in the project scenario. Provides an estimation of the area affected by fires within the project area during the project scenario
<b>Calculation method:</b>	Remote sensing and GIS
<b>Comments:</b>	-

<b>Data / Parameter</b>	C <sub>p</sub>
<b>Data unit</b>	tCO <sub>2</sub> e/ha
<b>Description</b>	Average carbon stock per hectare in the carbon pool p burnt at year y
<b>Source of data</b>	Table 4 – Forest phytophysionomies considered in the Amazon biome and respective carbon stocks per carbon pool (average and ranges - in tC/ha), Fs - Sub-montane Semideciduous Seasonal Forest AGB, DW, LI. Page 42. Brazil’s National Forest Reference Emission Level for Results-based Payments for REDD+ under the United Nations Framework Convention on Climate Change. Modified submission. Brasilia, DF. March 24. 154 p. Available at: <a href="https://redd.unfccc.int/media/brazil-national-frel_modified_v3_clean-13-mar-2024.pdf">https://redd.unfccc.int/media/brazil-national-frel_modified_v3_clean-13-mar-2024.pdf</a>
<b>Description of measurement methods and procedures to be applied:</b>	The following sources will be monitored: National data - Peer-reviewed scientific studies The calculation method must be a literature search about the above-ground biomass values that could be determined to accurately represent the values of vegetation within the project area
<b>Frequency of monitoring/recording:</b>	Annual
<b>Value monitored</b>	<p>Amazon’s above ground biomass (AGB), below ground biomass (BGB), dead wood (DW) and litter (LI) average carbon stock per hectare per forest phytophysionomies (tC/ha):</p> <p><u>Fs Sub-montane Semideciduous Seasonal Forest</u>: AGB 55.96/ DW 4.48 / LI 3.24; total 63.68 tC/ha (233,49 tCO<sub>2</sub>e/ha)</p>

<b>Monitoring equipment</b>	Brazil's National Forest Reference Emission Level for Results-based Payments for REDD+ under the United Nations Framework Convention on Climate Change. Modified submission. Brasilia, DF. March 24. 154 p. Available at: <a href="https://redd.unfccc.int/media/brazil-national-frel_modified_v3_clean-13-mar-2024.pdf">https://redd.unfccc.int/media/brazil-national-frel_modified_v3_clean-13-mar-2024.pdf</a>
<b>QA/QC procedures to be applied:</b>	National data or peer-reviewed scientific studies must be used to estimate the average above ground biomass per hectare
<b>Purpose of data:</b>	This parameter is used to calculate project emissions resulting from biomass burning in the project scenario
<b>Calculation method:</b>	Literature search about the above-ground biomass values that could be determined to accurately represent the values of vegetation within the project area
<b>Comments:</b>	As per the reference in use, Fs (Sub-montane Semideciduous Seasonal Forest) was associated with project's area, represented by the Legal Reserve.

<b>Data / Parameter</b>	$P_{burnt_p}$
<b>Data unit</b>	%
<b>Description</b>	Average proportion of mass burnt in the carbon pool
<b>Equations</b>	Equation 6
<b>Source of data</b>	Table 3.112 Combustion factors by biome, according to the vegetation structure, for the estimate of emissions from deforestation related combustion, and sources used - Amazon Forest. Pg. 186. VOLUME III - THIRD NATIONAL COMMUNICATION OF BRAZIL TO THE UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE. 2016. Available at: <a href="https://repositorio.mcti.gov.br/bitstream/mctic/4312/4/2016_terceira_comunicacao_nacional_brasil_convencao_quadro_nacoes_unidas_sobre_mudanca_clima_v3.pdf">https://repositorio.mcti.gov.br/bitstream/mctic/4312/4/2016_terceira_comunicacao_nacional_brasil_convencao_quadro_nacoes_unidas_sobre_mudanca_clima_v3.pdf</a>
<b>Description of measurement methods and procedures to be applied:</b>	The calculation method must use literature reference about biomass burning in the affected carbon pool that could be determined to accurately represent the values of mass burnt
<b>Frequency of monitoring/recording:</b>	Annual

<b>Value monitored</b>	Amazon Forest: 35,6%
<b>Monitoring equipment</b>	VOLUME III - THIRD NATIONAL COMMUNICATION OF BRAZIL TO THE UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE. 2016. Available at: <a href="https://repositorio.mcti.gov.br/bitstream/mctic/4312/4/2016_terceira_comunicacao_nacional_brasil_convencao_quadro_nacoes_unidas_sobre_mudanca_clima_v3.pdf">https://repositorio.mcti.gov.br/bitstream/mctic/4312/4/2016_terceira_comunicacao_nacional_brasil_convencao_quadro_nacoes_unidas_sobre_mudanca_clima_v3.pdf</a>
<b>QA/QC procedures to be applied:</b>	National data or peer-reviewed scientific studies must be used to estimate the average proportion of mass burnt in the above ground biomass pool
<b>Purpose of data:</b>	This parameter is used to calculate project GHG emissions from biomass burning at year y in the project area (parameter EBBPSPAy)
<b>Calculation method:</b>	National data or peer-reviewed scientific studies must be used to estimate the average proportion of mass burnt in the above ground biomass pool
<b>Comments:</b>	There are none or few studies that determine such percentages for the project's pools in the regions, biomes, and phytophysiognomies involved. The IBAMA study was conservatively adopted, which allowed for the segregation of Cp parameters for each phytophysiognomy present in the project area, with Amazon Forest for the Legal Reserve area in Fazenda J. Crestani.

<b>Data / Parameter</b>	Fburnt
<b>Data unit</b>	%
<b>Description</b>	Proportion of vegetation area burned
<b>Source of data</b>	TABLE A2.4 Biomass combustion factors per group of phytophysiognomies in the Amazon biome, biome of origin, and respective bibliographic references - (Decidual and Semidecidual) Seasonal Forests (Fs). Pg 305. VOLUME III - THIRD NATIONAL COMMUNICATION OF BRAZIL TO THE UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE. 2016. Available at: <a href="https://repositorio.mcti.gov.br/bitstream/mctic/4312/4/2016_terceira_comunicacao_nacional_brasil_convencao_quadro_nacoes_unidas_sobre_mudanca_clima_v3.pdf">https://repositorio.mcti.gov.br/bitstream/mctic/4312/4/2016_terceira_comunicacao_nacional_brasil_convencao_quadro_nacoes_unidas_sobre_mudanca_clima_v3.pdf</a>
<b>Description of measurement methods</b>	This parameter must be calculated according to requirements and default values established by the most recent data available from MCTI – Ministry of Science, Technology and Innovation. Brazil's National Communication to the United Nations Framework Convention on Climate Change

<b>and procedures to be applied:</b>	
<b>Value monitored</b>	46.4 %
<b>Monitoring equipment</b>	VOLUME III - THIRD NATIONAL COMMUNICATION OF BRAZIL TO THE UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE. 2016. Available at: <a href="https://repositorio.mcti.gov.br/bitstream/mctic/4312/4/2016_terceira_comunicacao_nacional_brasil_convencao_quadro_nacoes_unidas_sobre_mudanca_clima_v3.pdf">https://repositorio.mcti.gov.br/bitstream/mctic/4312/4/2016_terceira_comunicacao_nacional_brasil_convencao_quadro_nacoes_unidas_sobre_mudanca_clima_v3.pdf</a>
<b>Frequency of monitoring/recording:</b>	Annual
<b>QA/QC procedures to be applied:</b>	The most recent data available from MCTI must be used to estimate the proportion of vegetation area burned
<b>Purpose of data:</b>	This parameter is the average percentage of the area within the project area that is burnt and is used to calculate project GHG emissions from biomass burning at year t in the project area (parameter EBBPSPA <sub>y</sub> )
<b>Calculation method:</b>	The most recent data available from MCTI must be used to estimate the proportion of vegetation area burned
<b>Comments:</b>	-

<b>Data / Parameter</b>	EBBPSPA <sub>y</sub>
<b>Data unit</b>	tCO <sub>2</sub> e
<b>Description</b>	Total actual GHG emissions from biomass burning at year t in the project area in the project scenario
<b>Source of data</b>	Remote sensing data and GIS Field data
<b>Description of measurement methods and procedures to be applied:</b>	If biomass burning occurs, the resulting GHG emissions will be subject to monitoring and accounting, when significant. In addition to remote sensing data and GIS, which can identify the area affected by forest fire, field data could also confirm the obtained data
<b>Value monitored</b>	2020-2023: 0.00 tCO <sub>2</sub> e/ha

<b>Monitoring equipment</b>	Microsoft Office – Excel and GIS software QGIS 3.34.13-Prizren
<b>Frequency of monitoring/recording:</b>	Annual
<b>QA/QC procedures to be applied:</b>	Best practices in remote sensing and GIS
<b>Purpose of data:</b>	This parameter will be used to calculate GHG emissions due to biomass burning within the project area in the project scenario
<b>Calculation method:</b>	Remote sensing data and GIS Field data
<b>Comments:</b>	No fire events in the period of 2020-2023

<b>Data / Parameter</b>	EBB <sub>y</sub>
<b>Data unit</b>	tCO <sub>2</sub> e/ha
<b>Description</b>	Total GHG emission from biomass burning at year y
<b>Source of data</b>	Calculated according to IPCC (2003)
<b>Description of measurement methods and procedures to be applied:</b>	This parameter must be calculated according to requirements and default values established by the IPCC (2003)
<b>Frequency of monitoring/recording:</b>	Annual
<b>Value monitored</b>	2020-2023: 17.53 tCO <sub>2</sub> e/ha
<b>Monitoring equipment</b>	Microsoft Office – Excel
<b>QA/QC procedures to be applied:</b>	Determined by IPCC (2003)
<b>Purpose of data:</b>	This parameter is used to calculate GHG emissions from biomass burning occurred in the project scenario

<b>Calculation method:</b>	Determined by IPCC (2003)
<b>Comments:</b>	-

<b>Data / Parameter</b>	EBBN <sub>2</sub> O <sub>y</sub>
<b>Data unit</b>	tCO <sub>2</sub> e/ha
<b>Description</b>	N <sub>2</sub> O emission from biomass burning at year y
<b>Source of data</b>	Calculated according to IPCC (2003)
<b>Description of measurement methods and procedures to be applied:</b>	This parameter must be calculated according to requirements and default values established by the IPCC (2003)
<b>Frequency of monitoring/recording:</b>	Annual
<b>Value monitored</b>	2020-2023: 0.2527 tCO <sub>2</sub> e/ha
<b>Monitoring equipment</b>	Microsoft Office – Excel
<b>QA/QC procedures to be applied:</b>	Determined by IPCC (2003)
<b>Purpose of data:</b>	This parameter is used to calculate GHG emissions from biomass burning occurred in the project scenario
<b>Calculation method:</b>	Determined by IPCC (2003)
<b>Comments:</b>	-

<b>Data / Parameter</b>	EBBCH <sub>4,y</sub>
<b>Data unit</b>	tCO <sub>2</sub> e/ha

<b>Description</b>	CH <sub>4</sub> emission from biomass burning at year y
<b>Source of data</b>	Calculated according to IPCC (2003)
<b>Description of measurement methods and procedures to be applied:</b>	This parameter must be calculated according to requirements and default values established by the IPCC (2003)
<b>Frequency of monitoring/recording:</b>	Annual
<b>Value monitored</b>	2020-2023: 1.8783 tCO <sub>2</sub> e/ha
<b>Monitoring equipment</b>	Microsoft Office – Excel
<b>QA/QC procedures to be applied:</b>	Determined by IPCC (2003)
<b>Purpose of data:</b>	This parameter is used to calculate GHG emissions from biomass burning occurred in the project scenario
<b>Calculation method:</b>	Determined by IPCC (2003)
<b>Comments:</b>	-

<b>Data / Parameter</b>	EBBCO <sub>2,y</sub>
<b>Data unit</b>	tCO <sub>2</sub> e/ha
<b>Description</b>	CO <sub>2</sub> emission from biomass burning at year y
<b>Source of data</b>	Calculated according to IPCC (2003)
<b>Description of measurement methods and procedures to be applied:</b>	This parameter must be calculated according to requirements and default values established by the IPCC (2003)

<b>Frequency of monitoring/recording:</b>	Annual
<b>Value monitored</b>	2020-2023: 15.43 tCO <sub>2</sub> e/ha
<b>Monitoring equipment</b>	Microsoft Office – Excel
<b>QA/QC procedures to be applied:</b>	Determined by IPCC (2003)
<b>Purpose of data:</b>	This parameter is used to calculate GHG emissions from biomass burning occurred in the project scenario
<b>Calculation method:</b>	Determined by IPCC (2003)
<b>Comments:</b>	-

<b>Data / Parameter</b>	Analyzing the Non-Permanence Risk
<b>Data unit</b>	%
<b>Description</b>	Calculating the internal, external and natural risks of the project using the “AFOLU Non-Permanence Risk Tool”
<b>Source of data</b>	AFOLU Non-Permanence Risk Tool
<b>Description of measurement methods and procedures to be applied:</b>	Performing a non-permanence risk analysis (as described under the “AFOLU Non-Permanence Risk Tool”), to determine the non-permanence risk rating (“risk rating”), which is to be used to determine the number of buffer credits
<b>Frequency of monitoring/recording:</b>	Annual
<b>Value monitored</b>	22 %
<b>Monitoring equipment</b>	AFOLU Non-Permanence Risk Tool
<b>QA/QC procedures to be applied:</b>	Determined by the “AFOLU Non-Permanence Risk Tool” itself and subsequently verified by the responsible Social Carbon Unit

<b>Purpose of data:</b>	Calculating the number of buffer credits (retentions)
<b>Calculation method:</b>	Determined by the “AFOLU Non-Permanence Risk Tool” itself
<b>Comments:</b>	Relevant datasets/remote imagery will be uploaded onto the SOCIALCARBON Registry to facilitate independent reviews of the recorded project outcomes

## 4.3 Broader Sustainability Components Data Monitored

<b>SOCIALCARBON Indicator</b>	Social Resource S-002 Communication with stakeholders
<b>Data unit</b>	Documented evidence
<b>Description</b>	<p>Evaluates the process for contacting stakeholders in the planning, implementation and operation stages. Example of stakeholders that should be identified and involved in the consultation process:</p> <ul style="list-style-type: none"> <li>- project owners</li> <li>- partners</li> <li>- local institutions and NGOs</li> <li>- local team responsible for coordinating the implementation additional programs</li> <li>- households</li> <li>- local public agencies and municipalities.</li> </ul>
<b>Source of data</b>	Instituto Homem Pantaneiro; Fazenda J. Crestani's and VERT Ecotech S/A's legal responsible or representant/sharepoint.
<b>Description of methods to collect information and procedures to be applied</b>	<p>Attendance lists, questionnaires, meeting minutes, interviews with the community and program teachers/trainers, reports, among other records.</p> <p>Contact must be developed with stakeholders in order to communicate the most recent situations and updates about project and its considerations.</p>
<b>Purpose of the data</b>	Monitoring Social Resource S-002 Communication with stakeholders
<b>Comments</b>	-

<b>SOCIALCARBON Indicator</b>	Social Resource S-007 Local indigenous / traditional peoples assistance
<b>Data unit</b>	Documented evidence
<b>Description</b>	<p>Evaluate the project developer's socioenvironmental investment to promote the reduction of inequalities among indigenous / traditional people. The indigenous / traditional people can be identified as natives (indigenous) with knowledge regarding cultivation and fauna and flora preservation, and homeopathy, an inherited ancestral practice. The investments can be for:</p> <ul style="list-style-type: none"> <li>- Education;</li> <li>- Health;</li> <li>- Infrastructure;</li> <li>- Sport;</li> <li>- Culture;</li> <li>- Others (donations, for example).</li> </ul>
<b>Source of data</b>	National Foundation of Indigenous Peoples (Fundação Nacional dos Povos Indígenas – FUNAI, in Portuguese) <sup>12</sup> or any official Brazilian updated database; VERT Ecotech SA's legal responsible or representant/sharepoint.
<b>Description of methods to collect information and procedures to be applied</b>	<p>Questionnaires, documents, meetings with the project proponent and project local supervisors; interviews with the community.</p> <p>Updated vector file must be raised through official Brazilian database and all areas related must be compared to the project's property perimeter, highlighting the minimum distance regarding between both. Data must regard:</p> <ul style="list-style-type: none"> <li>- Traditionally Occupied Indigenous Lands (homologated or not)</li> <li>- Indigenous Reserve</li> <li>- Indigenous Domain Lands</li> <li>- Areas Under Interdiction</li> <li>- Indigenous Land under Study</li> <li>- Other related to traditional local people</li> </ul>

<sup>12</sup> Available at: <https://www.gov.br/funai/pt-br/atuacao/terras-indigenas/geoprocessamento-e-mapas>.

<b>Purpose of the data</b>	Monitoring Social Resource S-007 Local indigenous / traditional peoples assistance
<b>Comments</b>	Documents may concern maps or illustrations developed in GIS platform compiling data referred above, crossed with socioenvironmental actions developed summarized along project's lifetime

<b>SOCIALCARBON Indicator</b>	Social Resource S-012 Social Impact
<b>Data unit</b>	Documented evidence
<b>Description</b>	<p>Evaluates the relevant social impacts occurred due to the project, including additional social programs for the stakeholders and broader community, such as regional social actions developed in Mato Grosso, Brazil, by the non-governmental organisation "Instituto Homem Pantaneiro". Verification of actions aimed at social theme developed by it, with possibly updating this indicator as the partnership is well established and precise. This indicator is linked with social investments to be made within this project, as detailed in Section 3.6 – Additionality</p> <p>Major social areas related to this indicator will be further mapped and described as project develops, along with main beneficiaries.</p>
<b>Source of data</b>	Instituto Homem Pantaneiro; Fazenda J. Crestani's and VERT Ecotech S/A's legal responsible or representant/sharepoint.
<b>Description of methods to collect information and procedures to be applied</b>	<p>Interviews, questionnaires, or meetings: testimony from the local interested parties; physical evidence: local visits, pictures or others project results records; documentation: activities plan for additional programs implementation or agreements between partners and other organizations; periodic reports on the status of implementation of additional programs.</p> <p>Contact must be developed with Instituto Homem Pantaneiro in order to understand the most recent situations and updates about social actions and documenting the planning over improvements that may come with this project's resources</p>
<b>Purpose of the data</b>	Monitoring Social Resource – S-012 Social Impact
<b>Comments</b>	-

<b>SOCIALCARBON Indicator</b>	Social Resource S-014 Social research
<b>Data unit</b>	Documented evidence
<b>Description</b>	<p>Examines level of research into social, demographic and economic aspects of communities in the project. Relevant research for the project includes:</p> <ul style="list-style-type: none"> <li>- Community satisfaction survey: gauging opinions of all projects affecting them;</li> <li>- Education levels among the youth and the community;</li> <li>- Economic research such as levels of income, means of subsistence;</li> <li>- Communities' views of their own needs;</li> <li>- Demographic research: numbers of people and profiles.</li> </ul>
<b>Source of data</b>	Instituto Homem Pantaneiro; VERT Ecotech S/A's legal responsible or representant/sharepoint
<b>Description of methods to collect information and procedures to be applied</b>	<p>Site visits, surveys, questionnaires with communities, research documents.</p> <p>Contact must be developed with IHP and project proponent in order to understand most recent situations and updates about social research related.</p>
<b>Purpose of the data</b>	Monitoring Social Resource S-014 Social research
<b>Comments</b>	-

<b>SOCIALCARBON Indicator</b>	Social Resource S-019 Women Inclusion
<b>Data unit</b>	Documented evidence
<b>Description</b>	<p>Evaluates initiatives implemented by the company to promote women inclusion in the community activities. Campaigns: Punctual actions that do not have continuity, such as lectures, women's inclusion week, among others. Program: Set of continuous actions to promote women inclusion in the community activities, offering equal opportunities of access to goods and services for all.</p>

<b>Source of data</b>	Fazenda J. Crestani and VERT Ecotech S/A's legal responsible or representant/sharepoint.
<b>Description of methods to collect information and procedures to be applied</b>	<p>Questionnaire, interviews with communities, reports, among others.</p> <p>Contact must be developed with property owner and project proponent in order to understand most recent situations and updates about women inclusion.</p>
<b>Purpose of the data</b>	Monitoring Social Resource S-019 Women Inclusion
<b>Comments</b>	-

<b>SOCIALCARBON Indicator</b>	Human Resource H-004 Community education and training
<b>Data unit</b>	Documented evidence
<b>Description</b>	<p>Evaluates the relevant education and training programs related to the project, including additional programs to the stakeholders and broader community.</p> <p>The following major areas are considered:</p> <ul style="list-style-type: none"> <li>- Training: technical; IT and digital; courses, etc.</li> <li>- Education: basic and supplementary, environmental awareness-raising, etc.</li> </ul> <p>Checking for documents that verify the increase in qualification, training, awareness and environmental education for project's employees and related community.</p>
<b>Source of data</b>	Fazenda J. Crestani and VERT Ecotech S/A's legal responsible or representant/sharepoint
<b>Description of methods to collect information and procedures to be applied</b>	<p>Contact, meetings with project proponent and project area supervisors, questionnaires, interviews with communities, site visits.</p> <p>Contact must be developed in order to understand the most recent situations and updates about qualification, training, awareness and environmental education for project's employees and related community, also to collect and check each document related to this theme</p>

<b>Purpose of the data</b>	Monitoring Human Resource H-004 Community education and training
<b>Comments</b>	<p>Documents may concern copies of evidence of training, qualifications and related, carried out with employees and community related to this project</p> <p>It is expected that the forest fire-fighting/fire-brigade course and the nursery practice course compose this monitoring</p>

<b>SOCIALCARBON Indicator</b>	Human Resource H-008 Equipment and infrastructure
<b>Data unit</b>	Documented evidence
<b>Description</b>	Evaluates the project proponent's investment and encouragement relating to equipment and infrastructure (sanitation, household, electricity, transport, among others) for the community's benefit.
<b>Source of data</b>	Fazenda J. Crestani's legal responsible or representant/sharepoint
<b>Description of methods to collect information and procedures to be applied</b>	<p>Communication with project proponent and partners, questionnaires, interviews with communities and program teachers.</p> <p>Contact must be developed in order to understand the most recent situations and updates about equipment and infrastructure related to property, also to collect and check each document related to this theme.</p>
<b>Purpose of the data</b>	Monitoring Human Resource H-008 Equipment and infrastructure
<b>Comments</b>	-

<b>SOCIALCARBON Indicator</b>	Human Resource H-010 Community Health
<b>Data unit</b>	Documented evidence

<b>Description</b>	Evaluates the presence of initiatives and campaigns relating to community health, as well as access and communication with hospitals in neighbouring cities.
<b>Source of data</b>	Fazenda J. Crestani's legal responsible or representant/sharepoint
<b>Description of methods to collect information and procedures to be applied</b>	<p>Site visits, surveys, questionnaires with communities and supervisors.</p> <p>Contact must be developed in order to understand the most recent situations and updates about community health – related to property, also to collect and check each document related to this theme.</p>
<b>Purpose of the data</b>	Monitoring Human Resource H-010 Community Health
<b>Comments</b>	-

<b>SOCIALCARBON Indicator</b>	Human Resource H-011 Worker health and safety
<b>Data unit</b>	Documented evidence
<b>Description</b>	<p>Evaluates the health and safety conditions of work, often ignored by employers. Evaluated items include: First aid kit, Re-entry plate in recently sprayed fields, Personal Protective Equipment - PPE, Work safety training, etc.</p> <p>Avoiding community exposure to increased health risks and not affecting the health of the workers and the community</p> <p>Ensuring that there is no forced labour, and that all employment is in compliance with Brazilian labour and occupational health and safety laws, with obligations under international law, and consistency with the principles and standards embodied in the International Labour Organization (ILO) fundamental conventions.</p>
<b>Source of data</b>	Fazenda J. Crestani's legal responsible or representant/sharepoint
<b>Description of methods to collect information and procedures to be applied</b>	<p>Interviews and evidence such as photos, records, farm documents and work-related accident registries.</p> <p>Contact must be developed with Fazenda J. Crestani and Fazenda Palmasola stakeholder in order to understand the most recent situations and updates about its employee's rights, health</p>

	and safety conditions and work/living sites Also, collect and check each document related to this theme
<b>Purpose of the data</b>	Monitoring Human Resource H-011 Worker health and safety
<b>Comments</b>	Documents may concern copies of official Brazilian's work and safety mandatory documents for "CLT" workers – Work Contract, Work Card (Carteira de Trabalho in Portuguese), "PPRA", "PCMSO", among others

<b>SOCIALCARBON Indicator</b>	Human Resource H-022 Research incentive
<b>Data unit</b>	Documented evidence
<b>Description</b>	Evaluates whether the project promotes innovation through partnerships with universities and socioenvironmental organizations to develop research focused on local development.
<b>Source of data</b>	VERT Ecotech's legal responsible or representant/sharepoint
<b>Description of methods to collect information and procedures to be applied</b>	Questionnaires, interviews with the community, reports, among others.
<b>Purpose of the data</b>	Monitoring Human Resource H-022 Research incentive
<b>Comments</b>	-

<b>SOCIALCARBON Indicator</b>	Financial Resource F-003 Alternative income sources
<b>Data unit</b>	Documented evidence
<b>Description</b>	Evaluates whether the project created alternative sources of income generation for the communities living within/surrounding the project area.
<b>Source of data</b>	Fazenda J. Crestani and VERT Ecotech's legal responsible or representant/sharepoint

<b>Description of methods to collect information and procedures to be applied</b>	Questionnaire, interviews with communities.
<b>Purpose of the data</b>	Monitoring Financial Resource F-003 Alternative income sources
<b>Comments</b>	-

<b>SOCIALCARBON Indicator</b>	Financial Resource F-006 Competitive Advantage
<b>Data unit</b>	Documented evidence
<b>Description</b>	Evaluates if the Company obtained some economic benefits (cost reduction, offering products or services of low-carbon emission) or image improvements due to the project developing or other actions focus on climate change.
<b>Source of data</b>	Fazenda J. Crestani's legal responsible or representant/sharepoint
<b>Description of methods to collect information and procedures to be applied</b>	Industry reports, competitor analysis, internal questionnaire.
<b>Purpose of the data</b>	Monitoring Financial Resource F-006 Competitive Advantage
<b>Comments</b>	-

<b>SOCIALCARBON Indicator</b>	Financial Resource F-008 Economic viability
<b>Data unit</b>	Documented evidence
<b>Description</b>	Access if detailed cost/benefit analysis has been undertaken and if available financial resources available are enough to comply with project's objectives. Demonstrating financial sustainability of the project implemented.
<b>Source of data</b>	VERT Ecotech S/A's legal responsible or representant/sharepoint

<b>Description of methods to collect information and procedures to be applied</b>	<p>Internal questionnaire, cash flow, performance reports, technical and financial feasibility research of the project.</p> <p>Contact must be developed with VERT Ecotech S/A in order to understand the most recent situations and updates about the Economic Plan for the project and to collect and check each document related to this theme.</p>
<b>Purpose of the data</b>	Monitoring Financial Resource F-008 Economic viability
<b>Comments</b>	Documents may concern copies of an updated Economic Plan or similar.

<b>SOCIALCARBON Indicator</b>	<p>Natural Resource</p> <p>N-009 Environmental compliance of the farm</p>
<b>Data unit</b>	Documented evidence
<b>Description</b>	Evaluates structured/certified environmental management initiatives and systems regarding waste, water, air, soil, energy and nature conservation management.
<b>Source of data</b>	Fazenda J. Crestani's legal responsible or representant/sharepoint
<b>Description of methods to collect information and procedures to be applied</b>	<p>Consultation to the Rural Environmental Registry (RER). Questionnaires, interviews, photos, site visits. Complementary or supplementary evidence may include receipts, invoices, partnership contracts, statements among other documents. Documents of possession, title or lease, infraction notices, embargoed area, overlap with indigenous lands and conservation units.</p>
<b>Purpose of the data</b>	Monitoring Natural Resource N-009 Environmental compliance of the farm
<b>Comments</b>	-

<b>SOCIALCARBON Indicator</b>	<p>Natural Resource</p> <p>N-010 Environmental Impacts</p>
<b>Data unit</b>	Documented evidence
<b>Description</b>	Evaluates the relevant environmental impacts occurred due to the project, including additional environmental programs to the

	stakeholders and broader community. The following major areas are considered: a) Erosion, landslides, silting, soil quality. B) Water Quality c) Floods d) Others to be defined as applicable
Source of data	Fazenda J. Crestani and VERT Ecotech's legal responsible or representant/sharepoint
Description of methods to collect information and procedures to be applied	Reports, management plans, studies, documents, communication with project proponent, among others.
Purpose of the data	Monitoring Natural Resource N-010 Environmental Impacts
Comments	-

<b>SOCIALCARBON Indicator</b>	Natural Resource N-016 Monitoring methods
Data unit	Documented evidence
Description	Measures the progress of the project's monitoring methods, which may be: <ul style="list-style-type: none"> <li>- High-resolution GIS capable of detecting degradation;</li> <li>- Use of guards/supervisors;</li> <li>- Presence of guard towers or supervision centre in the project area;</li> <li>- Others (Chain of custody system, independent forest audit).</li> </ul>
Source of data	VERT Ecotech's legal responsible or representant/sharepoint
Description of methods to collect information and procedures to be applied	Reports, studies, documents, communication with the project proponent, among others.
Purpose of the data	Monitoring Natural Resource N-016 Monitoring methods
Comments	-

<b>SOCIALCARBON Indicator</b>	Biodiversity Resource B-003 Biodiversity monitoring
Data unit	Documented evidence
Description	Evaluates whether the company has actions to identify and monitor the local fauna and flora.

<b>Source of data</b>	VERT Ecotech S/A's legal responsible or representant/sharepoint
<b>Description of methods to collect information and procedures to be applied</b>	<p>Reports, studies, documents, communication with project proponent, among others.</p> <p>Contact must be developed with VERT Ecotech S/A in order to understand the most recent situations and updates about any kind of fauna monitoring in the project areas, also to collect and check each document related to this theme</p>
<b>Purpose of the data</b>	Monitoring Biodiversity Resource B-003 Biodiversity monitoring
<b>Comments</b>	Documents may concern any updated data related to fauna monitoring like videos, photos, fulfilled data tables, testimonies, among others

<b>SOCIALCARBON Indicator</b>	Biodiversity Resource B-004 Biodiversity research
<b>Data unit</b>	Documented evidence
<b>Description</b>	Evaluates the existence of partnerships with universities and environmental bodies, among others, which contribute to/encourage research on biodiversity in the project area.
<b>Source of data</b>	VERT Ecotech S/A's legal responsible or representant/sharepoint
<b>Description of methods to collect information and procedures to be applied</b>	Communication with project proponent and partners, research reports, contracts with research bodies.
<b>Purpose of the data</b>	Monitoring Biodiversity Resource B-004 Biodiversity research
<b>Comments</b>	-

<b>SOCIALCARBON Indicator</b>	Biodiversity Resource B-006 Flora and Fauna Local Information
<b>Data unit</b>	Documented evidence
<b>Description</b>	Access the plan or program for monitoring flora and fauna biodiversity, considering its efficiency and the existence of additional control methods (restocking, reintroduction of species, scientific research, etc.).
<b>Source of data</b>	VERT Ecotech S/A's legal responsible or representant/sharepoint

<b>Description of methods to collect information and procedures to be applied</b>	Reports compiling data collected, remote camera trap footage
<b>Purpose of the data</b>	Monitoring Biodiversity Resource B-006 Flora and Fauna Local Information
<b>Comments</b>	-

<b>SOCIALCARBON Indicator</b>	Carbon Resource C-003 Correspondence with Sustainable Development Goals
<b>Data unit</b>	Documented evidence
<b>Description</b>	Evaluates the evolution of the project in relation to the correspondence with the Sustainable Development Goals.
<b>Source of data</b>	VERT Ecotech S/A's legal responsible or representant/sharepoint
<b>Justification of choice of data or description of measurement methods and procedures applied</b>	Reports, studies, documents, communication with the local stakeholders, among others.
<b>Purpose of Data</b>	Monitoring Carbon Resource C-003 Correspondence with Sustainable Development Goals
<b>Comments</b>	-

<b>SOCIALCARBON Indicator</b>	Carbon Resource C-004 Impact Communication Strategy
<b>Data unit</b>	Documented evidence
<b>Description</b>	Evaluates whether the project has marketing strategies geared towards highlighting socio-environmental practices.
<b>Source of data</b>	VERT Ecotech S/A's legal responsible or representant/sharepoint
<b>Justification of choice of data or description of measurement methods and procedures applied</b>	Reports and documents..

<b>Purpose of Data</b>	Monitoring Carbon Resource C-004 Impact Communication Strategy
<b>Comments</b>	-

<b>SOCIALCARBON Indicator</b>	Carbon Resource C-008 Project performance
<b>Data unit</b>	Documented evidence
<b>Description</b>	Evaluates project performance in relation to verified emissions reductions/removals, as compared to expected emission reductions/removals.
<b>Source of data</b>	VERT Ecotech S/A's legal responsible or representant/sharepoint
<b>Justification of choice of data or description of measurement methods and procedures applied</b>	Documentation regarding the emission reduction project (Project Design Document, monitoring reports and equivalent documents).
<b>Purpose of Data</b>	Monitoring Carbon Resource C-008 Project performance
<b>Comments</b>	-

## 4.4 Monitoring Plan

The procedures employed by the project proponent to assess the data and parameters set out in Section 4.2 (GHG Emission Data and Parameters Monitored) above are the same as those described in the last PDD version approved v. 12, Section 5.4 Monitoring Plan. The monitoring activity was performed, over 4 steps, for the years of 2020 (30-September to 31-December), 2021, 2022 and 2023:

### Step 1: Validation and Classification of vegetation cover

Validation of the land use and cover for the adopted reference base was carried out by means of an accuracy analysis of the reference base for the land use and cover, following the same procedure for accuracy analysis of the reference base described in methodology SCM0003 v.1.0 Section 5 (Project Boundary), looking for a minimum 90% match. In the event that a figure of less than 90% was obtained, the land use and cover would be classified by means of remote sensing, using orbital imaging. This Step was approved in the Validation process of the PDD.

Concurrently, a monitoring of GHG emissions from biomass burning was performed to registry the eventual burning in the project area. If biomass burning occurs during the project scenario, which does not involve land

use conversion, these GHG emissions will be accounted for (Step 3). Only burning within managed lands is considered under this methodology.

## **Step 2: Comparative vegetation cover analysis**

All changes in the land use and cover that resulted in a regression in the conservation status implied in the exclusion of the areas from the accounting, for the purpose of issuing credits, as described in Section 5 (Project Boundary) of SCM0003 v.1.0, which then resulted in final Area per vegetation cover, as well described in Sections 4.2.

## **Step 3: Quantification of the project emissions and removals (tCO<sub>2</sub>e)**

Calculation of project emissions and removals were developed as provided in sub-section 8.2 of SCM0003 v.1.0. It is important to notice that relevant procedures are well described in Sections 4.2 and 5.2 of this project, which describes how  $BAP_{A,y}$ ,  $C_p$ ,  $P_{burnt,p}$ ,  $F_{burnt}$ ,  $EBB_{PSPA,y}$ ,  $EBB_y$ ,  $EBBN_{2O,y}$ ,  $EBBCH_{4,y}$ ,  $EBBCO_{2,y}$ , and NPR were monitored.

## **Step 4: Comparative analysis of the net GHG emissions and removals**

Identification of the percentage change in net GHG emissions and removals calculated in the monitoring year, compared to the previous year, according to sub-section 8.3 of SCM0003 v.1.0.

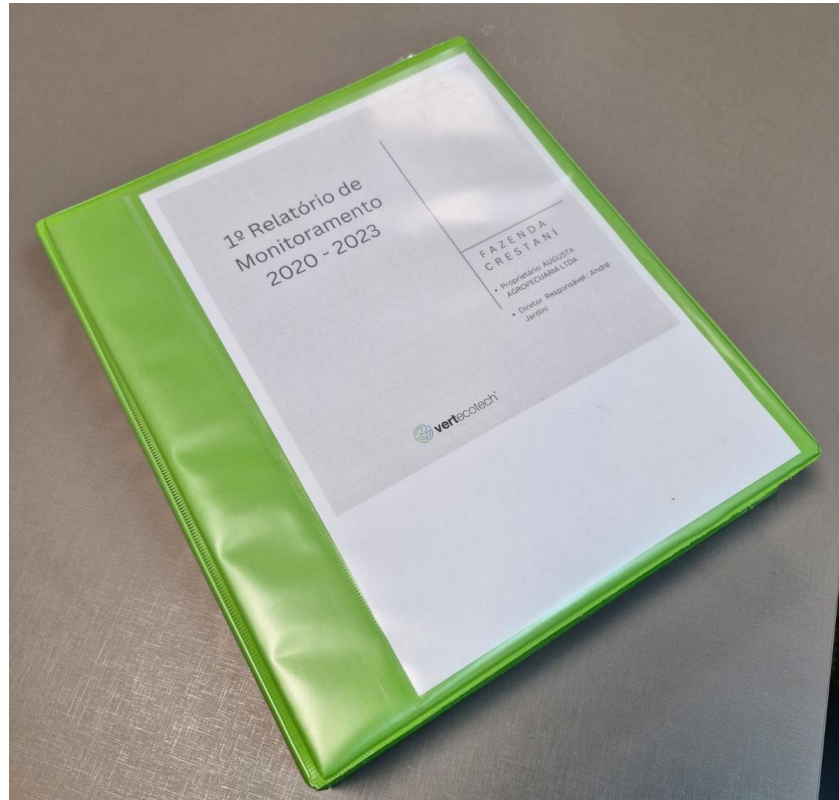
In addition to monitoring GHG removals and emissions parameters related to this project, there was a specific periodic monitoring for the sustainable aspects, in order to attend Broader Sustainability Components and Data Monitored, Section 4.3 above. We have that main information related, such as description of indicators, methods, purpose, responsibilities etc. is gathered and well explained in that section.

In addition, the table further below describes the schedule for collecting and processing information on all the project indicators, covering responsibility for monitoring, methods for storing and processing data, plausible documents providing evidence of collection, with, where applicable, an attendance list for the stakeholders involved.

As the aforementioned project described: *“if the project proponent meets any prerequisites for the completion of any indicator independently, they will do so by providing the necessary evidence of experience in the specific area”*. Therefore, activities performed by project proponent are also described in table below, along with evidence of experiences related.

It is important to inform that regardless of who is responsible for data collection and processing, all information was uploaded in the project proponent's platform, titled Vert Ecotech Platform. This platform is a method developed by the proponent for project management, using cloud computing technology, with data traffic on Blockchain, to guarantee information security, data traceability from Tokens and to control and combat any

incidents related to the loss or destruction of project data. Also, all documents and reports relating to the project are stored digitally on an external HD and physically, printed, in plastic folders, duly identified according to the date of preparation and the type of document. The materials will be stored for the duration of the project, plus 5 years after completion.



**Image 4.4-1:** Physical storage of Monitoring documentation in Vert Ecotech's office, located in Campinas, São Paulo (SP).



Image 4.4-2: Vert Ecotech Platform main screen for registration.

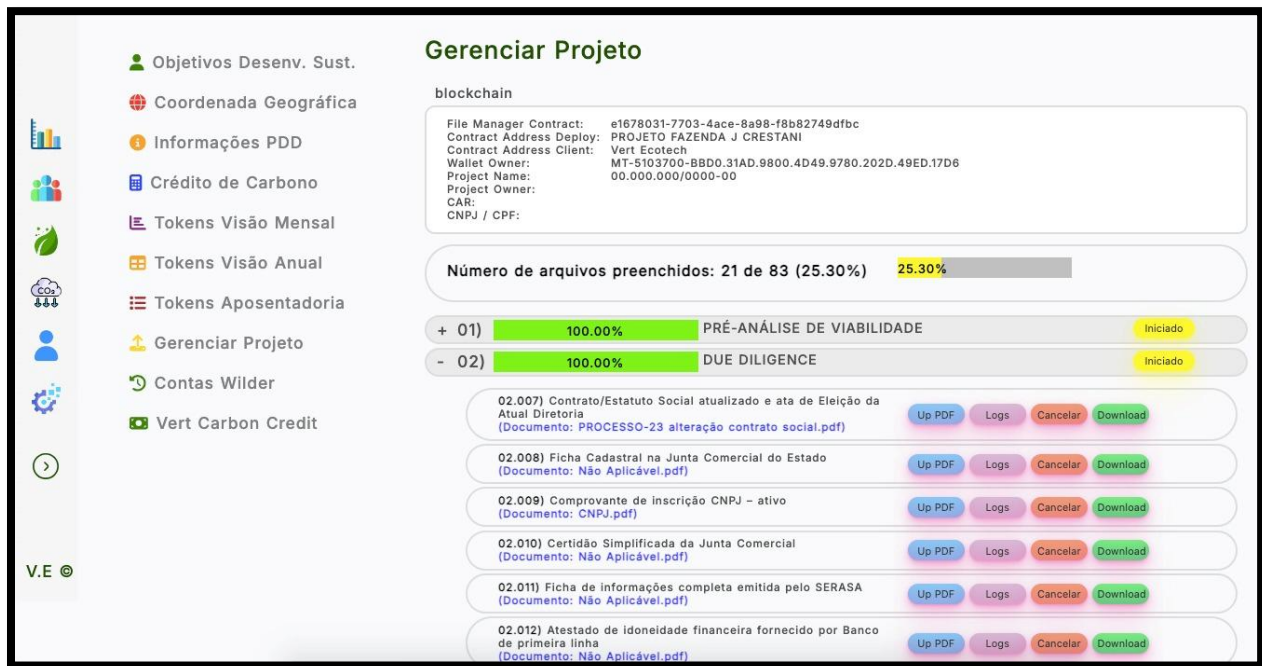


Image 4.4-3: Vert Ecotech Platform management section, where data and information are inserted for traceability and become NFT.



**Gerenciar Projeto**

blockchain

File Manager Contract: e1678031-7703-4ace-8a98-f8b82749dfbc  
 Contract Address Deploy: PROJETO FAZENDA J CRESTANI  
 Contract Address Client: Vert Ecotech  
 Wallet Owner: MT-5103700-BBDD.31AD.9800.4D49.9780.202D.49ED.17D6  
 Project Name:  
 Project Owner: 00.000.000/0000-00  
 CAR:  
 CNPJ / CPF:

Número de arquivos preenchidos: 59 de 83 (71.08%) 71.08%

+ 01)	100.00%	PRÉ-ANÁLISE DE VIABILIDADE	Iniciado
+ 02)	100.00%	DUE DILIGENCE	Iniciado
+ 03)	100.00%	ESTUDO DE VIABILIDADE – PROJECT IDEA NOTE (PIN)	Iniciado
+ 04)	100.00%	PROJECT DESIGN DESCRIPTION (PDD)	Iniciado
+ 05)	100.00%	VALIDAÇÃO – DOCUMENTOS SOLICITADOS VALIDADORA	Iniciado
+ 06)	100.00%	VALIDAÇÃO – PÓS VISITA IN LOCO DA VALIDADORA	Iniciado
+ 07)	100.00%	VALIDAÇÃO – CORREÇÕES SOCIAL CARBON	Iniciado
+ 08)	0.00%	VERIFICAÇÃO – DOCUMENTOS EXIGIDOS VALIDADORA	Iniciar 08
+ 09)	0.00%	VERIFICAÇÃO – PÓS VISITA IN LOCO DA VERIFICADORA	Iniciar 09
+ 10)	0.00%	VERIFICAÇÃO – CORREÇÕES SOCIAL CARBON	Iniciar 10
+ 11)	0.00%	REGISTRO E PROCESSO DE EMISSÃO DE SCU	Iniciar 11

Salvar

V.E

**Image 4.4-4:** Vert Ecotech Platform in Verification Section, where data and information were inserted for MRV of Fazenda J. Crestani.

Non-conformances found within the Steps 1 to 4 were self-excludable and therefore no longer compose the project from the moment they are identified. Relatively about Sustainability Components data, it should be noted that the procedures for handling any internal auditing performed and any non-conformities identified involve a structured internal verification process to ensure the accuracy and completeness of data and documentation related to sustainability components. The internal check is conducted by the technical review team, represented by project proponent, which evaluates the data provided by the data collection team, also represented by project proponent, along with, if necessary, the property team, represented by Agropecuária Augusta LTDA, and IHP.

The process starts with the technical review team examining the submitted data and documents to confirm their compliance with the project's sustainability indicators. If any discrepancies or non-conformities are found, the technical review team communicates these issues to the data collection team and the Agropecuária Augusta LTDA if deemed necessary, outlining the specific requirements and corrections needed. The data collection team then revises the data and provides updated information, which is subjected to a new round of validation by the technical review team. This iterative process continues until all identified non-conformities are resolved. Data or evidence that cannot meet the standards defined in Section 4.3 are not included in the project monitoring, and a technical justification was developed to align the non-conformities with the status of each indicator, as well as a correction plan for the next project monitoring.

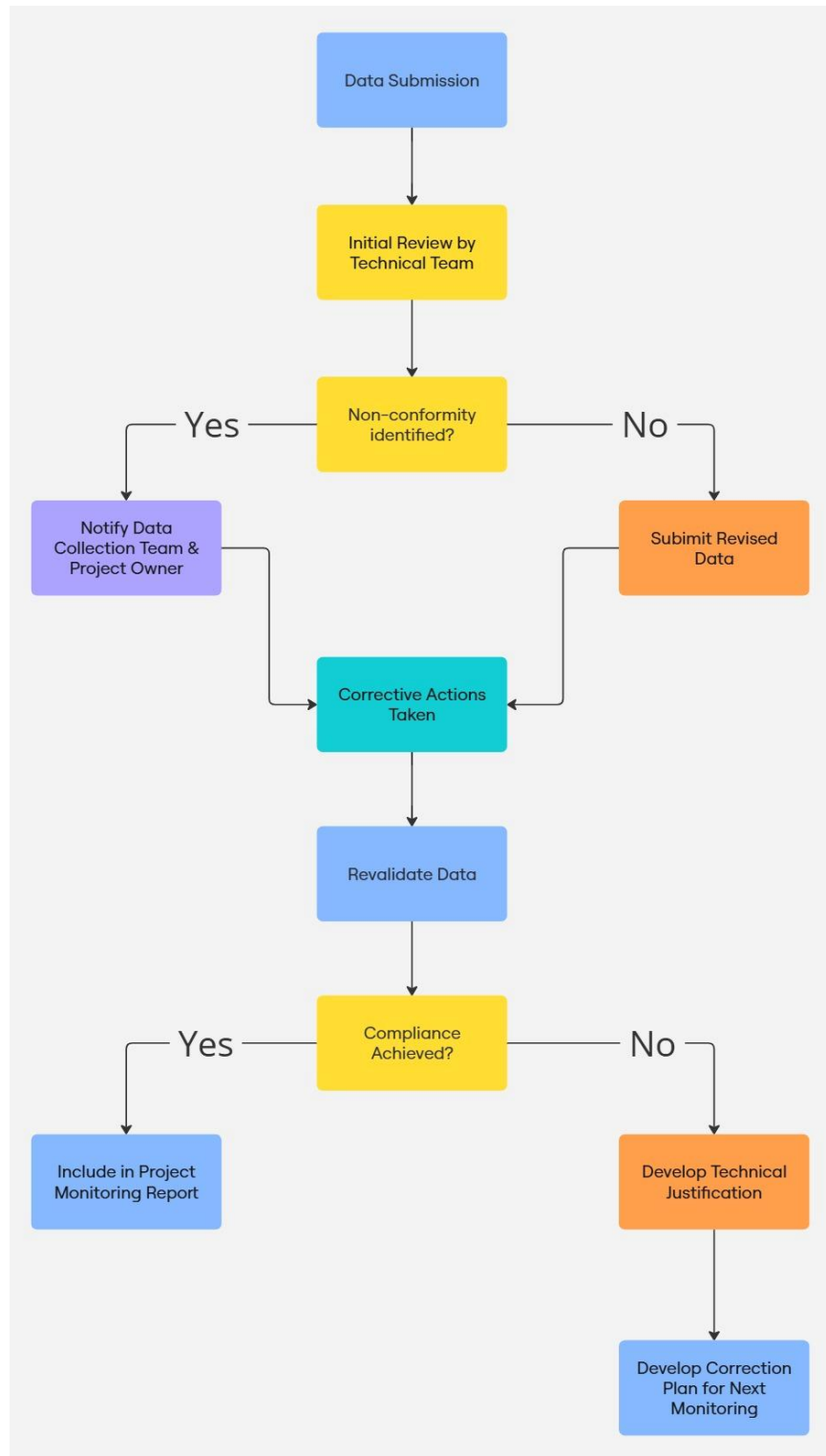
Image 4.4-5 presents this procedure in a flowchart, detailing the steps from the internal audit to the resolution of non-conformities and validation of revised data.

The Non-Permanence Risk Report was prepared using the “SOCIALCARBON Non-Permanence Risk Report Template – Version 1.0”, supported by “SOCIALCARBON AFOLU Non-Permanence Risk Tool - Version 1.1”, which was included in Appendix 1.

Quantification	GHG Emission Data/Parameter	Collection responsibility (30-September-2020 to 31-December-2023)	Analysis, organisation, storing and reporting responsibility (30-September-2020 to 31-December-2023)	Proof of experience	Document / related evidence	Storage
Carbon (removals)	Area per class of vegetation cover	Project proponent	Project proponent	Members of the project proponent's team have experience related to this monitoring, as described in their respective <i>Curriculum Vitae</i> (attached).	1o_MR_Emission_Removals_Faz_J_Crestani_2020-2023_v01 (attached)	Fazenda J. Crestani's dashboard in Vert Ecotech Platform
Carbon (emissions)	BAP <sub>Ay</sub>					
	C <sub>p</sub>					
	P <sub>burnt</sub> <sub>p</sub>					
	F <sub>burnt</sub>					
	EBBPSP <sub>Ay</sub>					
	EBB <sub>y</sub>					
	EBBN <sub>2</sub> O <sub>y</sub>					
	EBBCH <sub>4,y</sub>					
EBBCO <sub>2,y</sub>						
Analysing the Non-Permanence Risk		Project proponent	Project Proponent	Members of the project proponent's team have experience related to this monitoring, as described in their respective <i>Curriculum Vitae</i> (attached).	1o_MR_Risk_Report_Calculation_Tool_Faz_J_Crestani_v01 (attached)	Fazenda J. Crestani's dashboard in Vert Ecotech Platform

Aspect	SOCIALCARBON Indicator	Sustainability Data / Parameter	Collection responsibility (30-September-2020 to 31-December-2023)	Analysis, organisation, storing and reporting responsibility (30-September-2020 to 31-December-2023)	Proof of experience	Document / related evidence	Storage (Vert Ecotech Platform)
Social	S-002 Communication with stakeholders	Documented evidence - descriptions in Section 4.3	Project proponent	Project proponent	<p>Members of the <u>project proponent's</u> team have experience related to this monitoring, as described in their respective <i>Curriculum Vitae</i> (attached).</p> <p><u>AUGUSTA AGROPECUARIA LTDA</u> is the organisation that owns Fazenda J. Crestani and Fazenda Palmasola is the stakeholder which manage the agriculture area. Both has experience and a proven track record in managing rural properties for agriculture farming. It has demonstrated organisation and expertise in collecting relevant documentary information concerning various aspects of the farm that align with the project, such as employee records, environmental compliance documents, and the provision of structures and equipment for farm activities, among others.</p> <p>The <u>Instituto Homem Pantaneiro (IHP)</u> is a non-profit civil society organisation. Founded in 2002 and based in the city of Corumbá (Mato Grosso do Sul), it has over 20 years of experience in the conservation and preservation of the Pantanal biome and local culture. Further information, accessible on its platform<sup>13</sup>, substantiates its expertise in managing the project's indicator data.</p>	The related documents are included in the folders attached to the project, related to the SocialCarbon indicators, with the corresponding names / codes for each indicator.	item 07.110
	S-007 Local indigenous / traditional peoples assistance		IHP / Project proponent				item 07.111
	S-012 Social Impact		IHP / Project proponent				item 07.112
	S-014 Social research		IHP / Project proponent				item 07.113
	S-019 Women Inclusion		IHP / Project proponent				item 07.114
Human	H-004 Community education and training		Project proponent				item 07.115
	H-008 Equipment and infrastructure		AUGUSTA AGROPECUARIA LTDA / Project proponent				item 07.116
	H-010 Community Health		AUGUSTA AGROPECUARIA LTDA / Project proponent				item 07.117
	H-011 Worker health and safety		AUGUSTA AGROPECUARIA LTDA / Project proponent				item 07.118
	H-022 Research incentive		Project proponent				item 07.119
Financial	F-003 Alternative income sources		Project proponent				item 07.120
	F-006 Competitive Advantage		AUGUSTA AGROPECUARIA LTDA / Project proponent				item 07.121
	F-008 Economic viability		Project proponent				item 07.122
Natural	N-009 Environmental compliance of the farm		AUGUSTA AGROPECUARIA LTDA / Project proponent				item 07.123
	N-010 Environmental Impacts		Project proponent				item 07.124
	N-016 Monitoring methods	Project proponent	item 07.125				
Biodiversity	B-003 Biodiversity monitoring	Project proponent	item 07.126				
	B-004 Biodiversity research	Project proponent	item 07.127				
	B-006 Flora and Fauna Local Information	Project proponent	item 07.128				
Carbon	C-003 Correspondence with Sustainable Development Goals	Project proponent	item 07.129				
	C-004 Impact Communication Strategy	Project proponent	item 07.130				
	C-008 Project performance	Project proponent	item 07.131				

<sup>13</sup> Available at: <https://institutohomempantaneiro.org.br/quem-somos/>.



**Image 4.4-5:** Flowchart – steps from the internal audit to the resolution of non-conformities and validation of revised data

# 5. Quantification of GHG Emissions Reductions and Removals

## 5.1 Baseline Emissions

According to Section 6 - Baseline Scenario of SCM0003 Methodology v.1.0, for small-scale projects, the baseline is the scenario where no investments or conservation activities are undertaken by the project proponent, leading to a situation where native vegetation formations are not anthropically managed and protected. Consequently, the baseline scenario implies the absence of CO<sub>2</sub> removals as a result of anthropogenic GHG removals activities, since the area is not classified under the concept of carbon removal on managed lands according to the IPCC. Finally, as the main conservation activities started in 30-September-2020, as described in Section 1.5, the Fazenda J. Crestani Conservation Project presents zero GHG emissions reductions and removals in the baseline scenario.

## 5.2 Project Emissions

To reinforce the analysis to justify the vegetation classification, the same analysis performed in PDD v. 12, validated and certified version, Section 1.3 Project Eligibility and 1.13 Conditions Prior to Project Initiation, is copied with adjustments in this 1o. Monitoring Report. It contains all the images and information necessary to corroborate the project start date. In addition, the Notarial Minute (Ata Notarial) document in annexes also helps in understanding the issue.

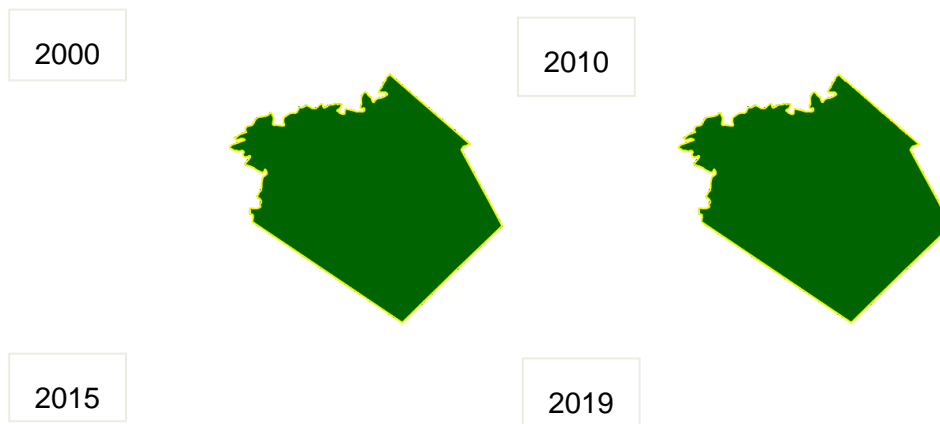
The property area was, in the past, Amazon managed Forest with authorization by law (Image below) and the State Environmental Department. Previous forest management did not change the classification of forest formation and land use classification.



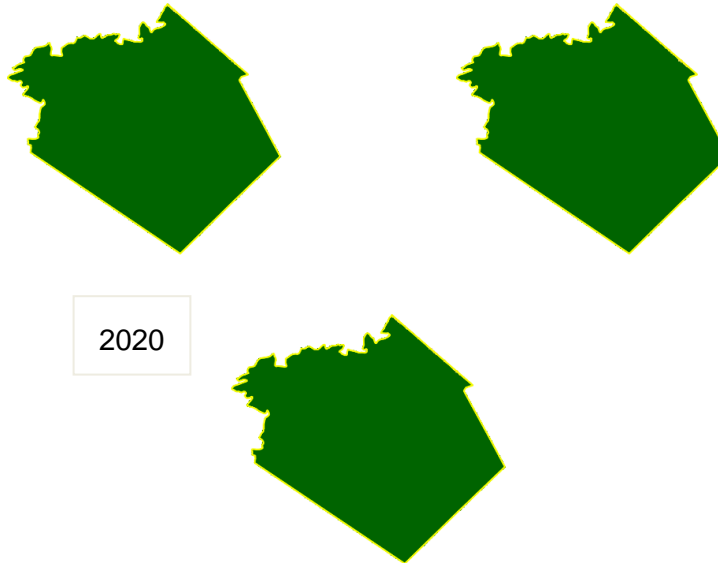
1.5-1: Forest management plan with sustained yield plate.

It was possible to verify the existence or not of changes in vegetation formation and land use of the area, using the database of the collaborative network called MapBiomias<sup>14</sup>, which is composed of Non-Governmental Organizations (NGOs), Universities, and Technology Start-Ups.

The baseline scenario for the project is 2020. Comparing the MapBiomias images from 2000, 2010, 2015, 2019 and 2020, the area did not show changes in land use and vegetation cover (Images below), being considered Forest Formation in its all area, with native vegetation.

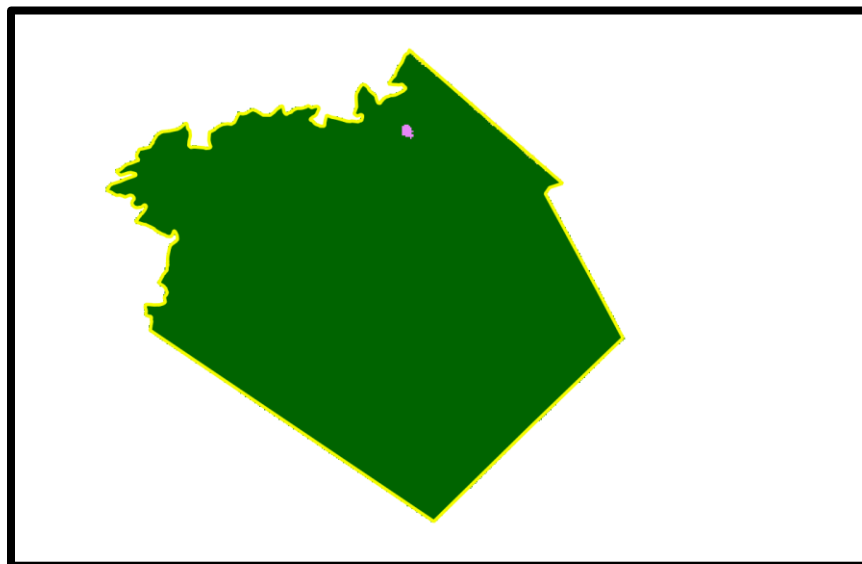


<sup>14</sup> MAPBIOMAS, 2023. Projeto MapBiomias – Coleção v.7.0 da Série Anual de Mapas de Uso e Cobertura da Terra do Brasil. Available at: <https://mapbiomas.org/>.



**1.5-2:** Years 2000, 2010, 2015, 2019 and 2020 –Forest Formation Land use coverage: Native Forest Formation. Source: MapBiomas Collection 7.1.

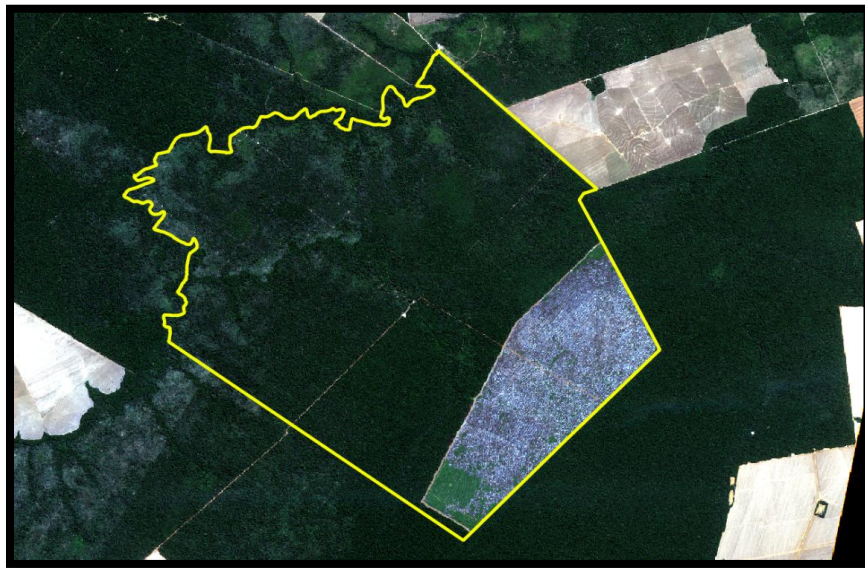
The 2021 image that refers to the last year of data available in MapBioma Collection 7.1 at the time of the analysis, shows a small patch corresponding to the use of the soil for Other Temporary Crops (4.27774 ha) in Magenta (Image below), according to MapBiomas classification, probably due to illegal deforestation. The area was excluded from the proposed project area, however, the majority of the property area is still considered Forest Formation.



**1.5-3:** 2021 - Forest in green and Other Temporary Crops in magenta. Source: MapBiomass Collection 7.1.

Scale 1:50.000

Based on CBERS4A satellite images from 2022 and 2023 (Images below), it is possible to observe the change in land use for agriculture in the portion of the property outside the Legal Reserve (LR), a fact permitted by Federal Law no. 12,651/2012 (Brazilian Forest Code) to 20% of the area of Forest in the Amazon Biome. As a result, the vegetation area of the property eligible for the generation of carbon credits was restricted to the LR only, excluded areas different from forest formation.



**1.5-4:** 2022 – False-Color RGB Composition of the property with deforested area for agriculture outside the LR.

Scale 1:50.000

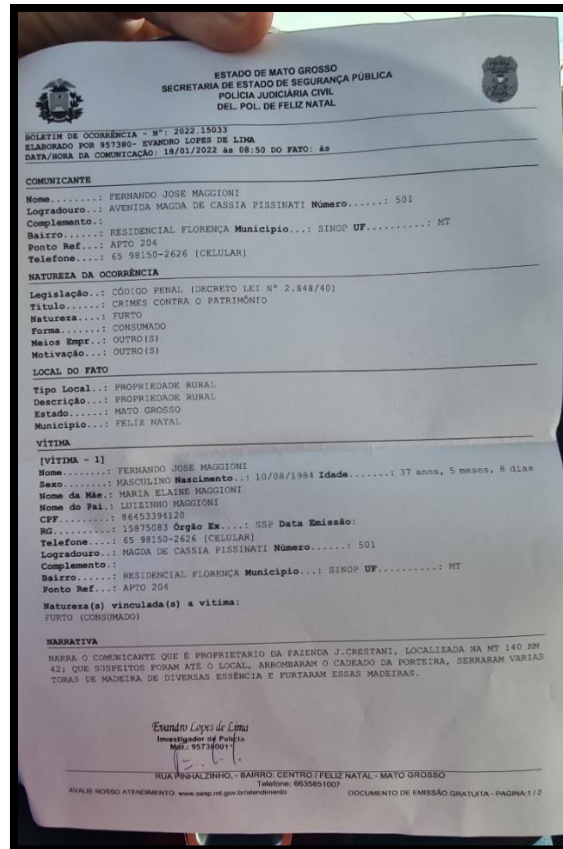


**1.5-5: 2023 – False-Color RGB Composition of the property with deforested area for agriculture outside the LR.  
Scale 1:50.000**

The property is 100% inserted in the Amazon Biome, being considered, according to MapBiomas Collection 7.1, entirely of Forest Formation until 2020. After the temporal analysis, despite the excluded area 4.27774 ha of the year 2021, the property maintains the conservation status in Forest Formation, being, therefore, the area eligible for the project to generate carbon credits.

The project area has been subject to Conduct Adjustment Agreement or similar instrument, as part of a judicial or administrative proceeding due fire events and illegal logging in the last ten years. However, a Notarial Minute (in annexes) was filed at the Feliz Natal city Notary's Office reporting the illegal events, who was responsible for the fire (not the owner of the area, but the neighbour. The fire came from outside the area object of the project), and the area owner actions to mitigate environmental and anthropogenic impacts in the area after the fire events. Consulting the IBAMA (Brazilian Environmental Agency), The ICMBio (Chico Mendes Institute), the SEMA (Mato Grosso State Environment Secretariat) there are no debits according to the Negative Debit Certificate, the Negative Embargo Certificate and other information.

The project area suffered from occasional illegal removal of wood at the beginning of 2022, and an Incident Bulletin was drawn up to document the fact (Image below).



ESTADO DE MATO GROSSO  
SECRETARIA DE ESTADO DE SEGURANÇA PÚBLICA  
POLÍCIA JUDICIÁRIA CIVIL  
DEL. POL. DE FELIZ NATAL

BOLETIM DE OCORRÊNCIA - Nº: 2022.15033  
ELABORADO POR 957380- EVANDRO LOPES DE LIMA  
DATA/HORA DA COMUNICAÇÃO: 18/01/2022 às 08:50 DO FATO: às

**COMUNICANTE**  
Nome.....: FERNANDO JOSE MAGGIONI  
Logradouro...: AVENIDA MAGDA DE CASSIA PISSINATI Número.....: 501  
Complemento.:  
Bairro.....: RESIDENCIAL FLORENÇA Município...: SINOP UF.....: MT  
Ponto Ref...: APTO 204  
Telefone.....: 65 98150-2626 (CELULAR)

**NATUREZA DA OCORRÊNCIA**  
Legislação...: CÓDIGO PENAL (DECRETO LEI Nº 2.848/40)  
Título.....: CRIMES CONTRA O PATRIMÔNIO  
Natureza.....: FURTO  
Forma.....: CONSUMADO  
Meios Emp...: OUTRO(S)  
Motivação...: OUTRO(S)

**LOCAL DO FATO**  
Tipo Local...: PROPRIEDADE RURAL  
Descrição...: PROPRIEDADE RURAL  
Estado.....: MATO GROSSO  
Município...: FELIZ NATAL

**VÍTIMA**  
[VÍTIMA - 1]  
Nome.....: FERNANDO JOSE MAGGIONI  
Sexo.....: MASCULINO Nascimento...: 10/08/1984 Idade.....: 37 anos, 5 meses, 8 dias  
Nome da Mãe.: MARIA ELAINE MAGGIONI  
Nome do Pai.: LUIZINHO MAGGIONI  
CPF.....: 86453394120  
RG.....: 15875083 Órgão Ex...: SSP Data Emissão:  
Telefone...: 65 98150-2626 (CELULAR)  
Logradouro.: MAGDA DE CASSIA PISSINATI Número.....: 501  
Complemento.:  
Bairro.....: RESIDENCIAL FLORENÇA Município...: SINOP UF.....: MT  
Ponto Ref...: APTO 204  
Natureza(s) vinculada(s) a vítima:  
FURTO (CONSUMADO)

**NARRATIVA**  
HABEA O COMUNICANTE QUE É PROPRIETÁRIO DA FAZENDA J. CRESTANI, LOCALIZADA NA MT 140 KM 42) QUE SIBREITEIROS FORAM NTE O LOCAL. ARROMBARAM O CADEADO DA PORTEIRA, SERRARAM VARIAS TORAS DE MADEIRA DE DIVERSAS ESSÊNCIA E FURTARAM ESSAS MADEIRAS.

Evandro Lopes de Lima  
Investigador de Polícia  
Nº: 957380/1

RUA PAULICIANO, BAIRRO CENTRO7FELIZ NATAL - MATO GROSSO  
Telefone: 0635851007

AVALE NOSSO ATENDIMENTO: www.mato.gov.br/telefoneatendimento DOCUMENTO DE EMISSÃO GRATUITA - PAGINA 1/2

1.5-6: Incident Bulletin. Source: Property Management

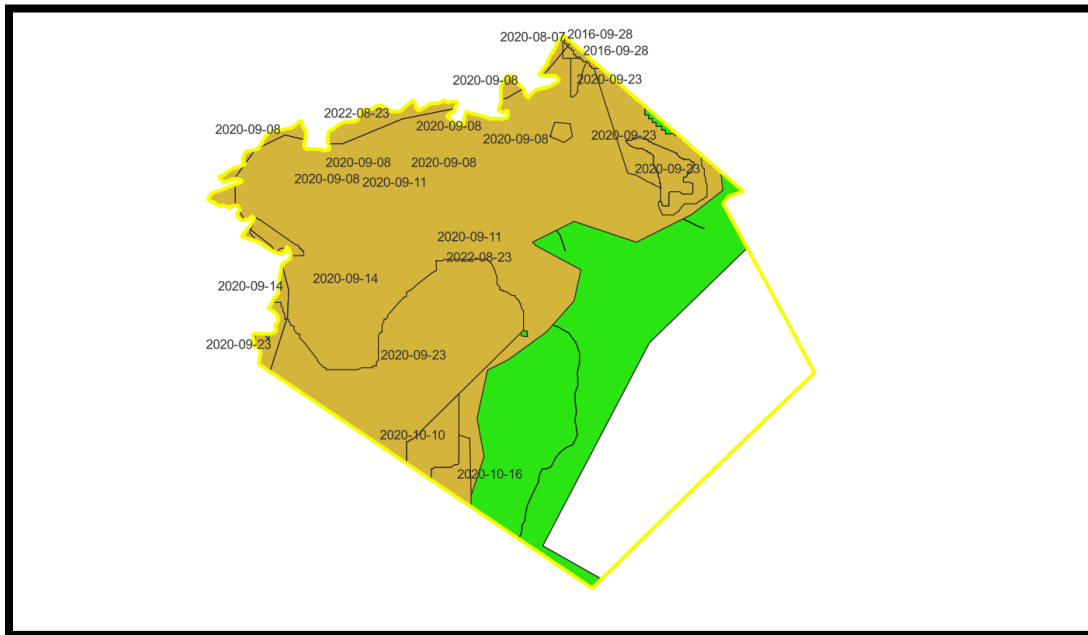
The are no alternative use of the land beyond conservation in the Project area.

The proof that the LR is in compliance with the Brazilian law, is the evidence that it meets the minimum percentage area and requirements set out in Federal Law no. 12,651/2012 (Brazilian Forest code), 12o. article for Amazon biome, 80% of the total property area. Also, the proposed LR area is set in the Rural Environmental Registry – RER (Cadastro Ambiental Rural in portuguese).

Despite the physiognomically classification, it is important to classify the vegetation as Primary or Secondary, because the fire events that occurred.

It is important to point out, that the LR suffered from fires between 2016 and 2020 (approx. 2,752.306 ha) (DETER TerraBrasilis, 2023) (Image below), which may influence the change of the Forest Formation class from Primary to Secondary in a large part of the LR. The fire scar in 2022 (approx. 2,806.275 ha, almost the total LR area) probably is an error of the DETER TerraBrasilis system and could be the influence of fire scar remain from 2020 and poor vegetation quality in dry season (semi-deciduous seasonal forest), as there were no new fire incidents in the area after 2020. In Section 3.1 Implementation Status of the Activity - Remote monitoring (fire and deforestation events) a robust explanation is carried out on the platforms used to verify

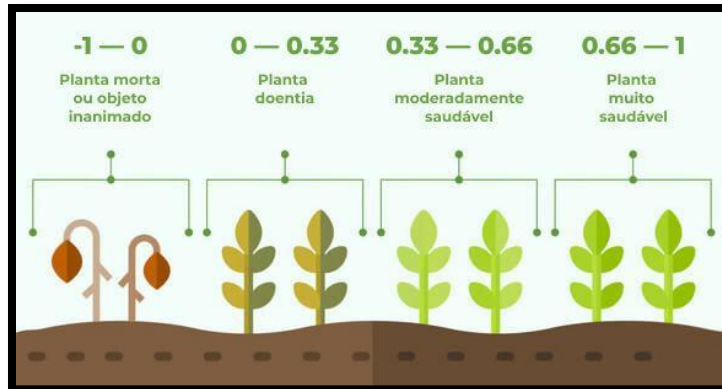
fires, changes in land use as well which platform presents data closest to reality. The document "annex\_Environmental-Impacts\_Faz\_J\_Crestani", part of the N-010 Environmental Impacts Indicator, also demonstrates the vegetation status and satellite images fire scars. To verify this issue, NDVI and EVI analysis were applied.



**1.5-7:** Mustard colour: Scars from fires between 2016 and 2020, Green colour: LR not burned. Source: DETER TerraBrasilis, 2023. Scale 1:50000

The application of the NDVI and EVI are other ways of highlighting the Forest Formation classes. The analysis was carried out for the years 2021, which is the last year of data available by MapBiomas.

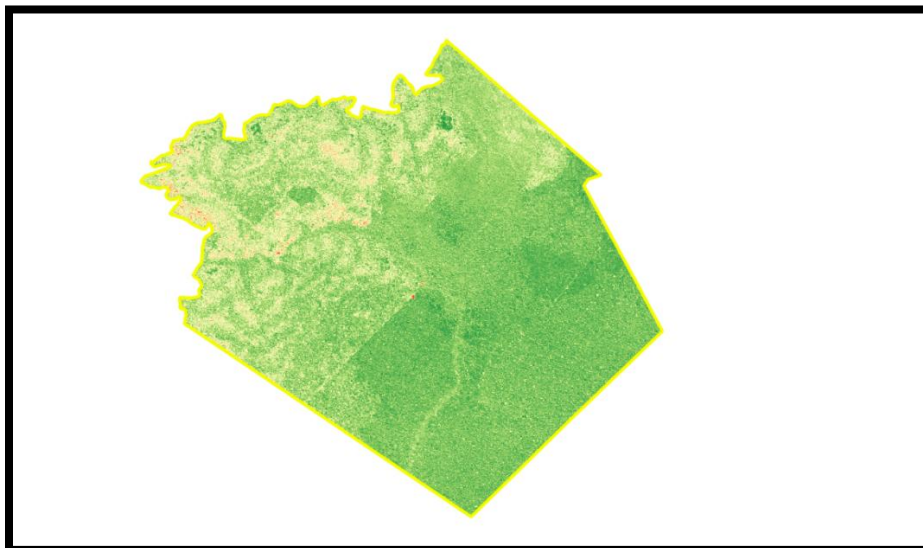
NDVI calculation results range from -1 to 1. Bare soil typically falls within the range 0.1 – 0.2; and plants will always have positive values between 0.2 and 1. Healthy, dense vegetation should be above 0.5, and sparse vegetation will most likely fall within the range 0.2 – 0.5 (Image below). However, this is just a general rule, and you should always consider the season of the year, the type of plant and regional peculiarities to know exactly what your values mean.



1.5-8: Interpretation of NDVI calculation results.

The problem with the NDVI as an instrument to measure vegetation density is that it becomes saturated with large amounts of green biomass. Simply put, you may end up with the same NDVI readings for low vegetation density, such as grassy areas, and very high density, such as dense tree vegetation. To verify the maturity of the vegetation and, therefore, to be able to infer about its Forest Formation class, the higher the NDVI value, the greater the carbon capture. Grasses and secondary forests show stronger coloration than mature primary forests.

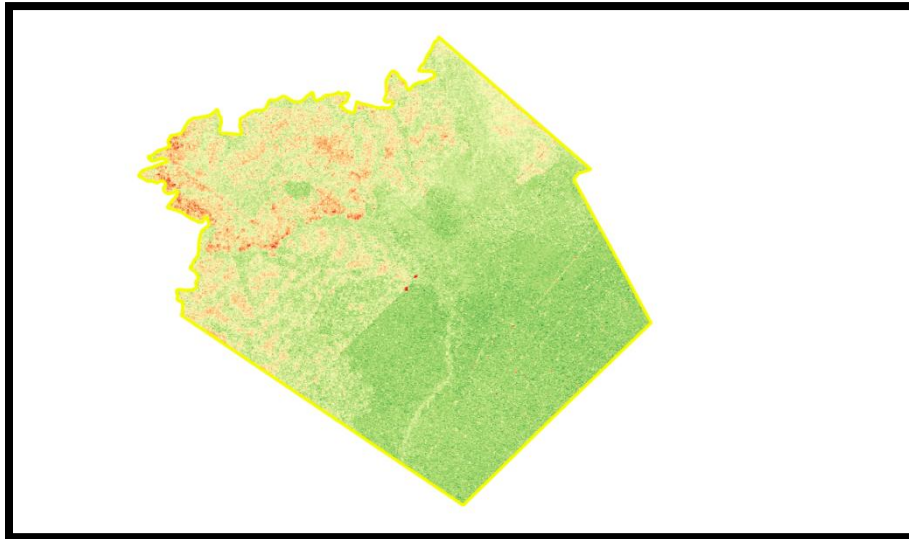
It can be observed that in the NDVI, the dark green colour, in this case, demonstrates dense, large, mature vegetation, being classified as Primary Forest and the lighter green colour, the area with lower vegetation, with high carbon capture, and can be classified as Secondary Forest (Image below).



1.5-9: Year 2021 - NDVI image of the property. Scale 1:50000

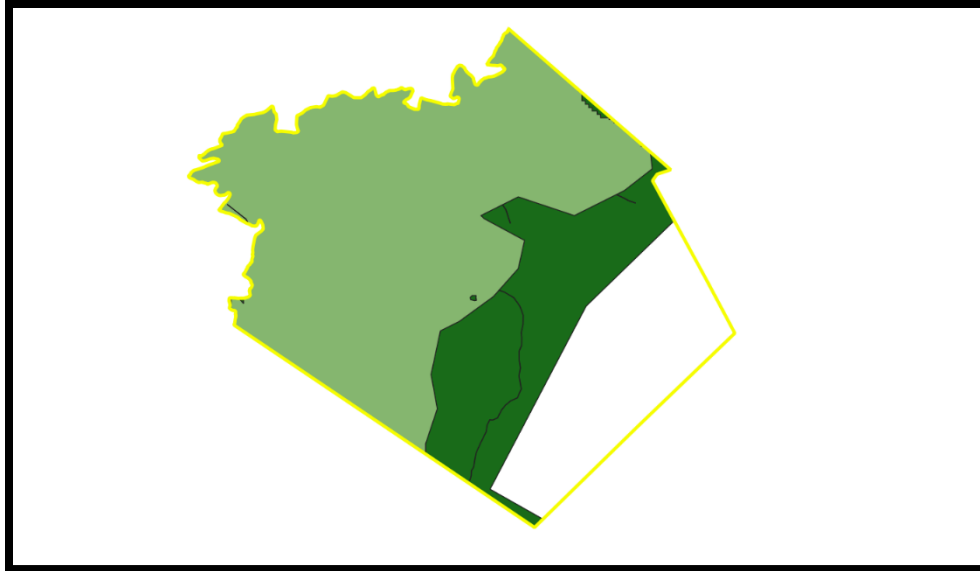
To minimize the problems of NDVI, therefore, the use of EVI is considered, which is an adjusted version of NDVI that is especially accurate in areas with dense vegetation and where the satellite image is subject to interference from atmospheric and soil factors, such as fog caused by due to high humidity. The range of values for EVI is  $-1$  to  $+1$ , and for healthy vegetation, it varies between  $0.2$  and  $0.8$ .

The result of the EVI shows in red the focus of degradation, in dark green the most mature forest (Primary Forest) and lighter colours, Secondary Forest (Image below).



**1.5-10:** Year 2021 – EVI image of the property. Scale 1:50000

Taking into account the scars of fires, the NDVI and especially the EVI, a new proposal for classifying the vegetation of the RL, where a large part was reclassified as Secondary Forest Formation (approx. 2,752.306 ha) and the remainder still as Primary Forest Formation (approx. 999.566 ha) (Image below).



**1.5-11:** Year 2020 – New LR classification: Light Green colour – Secondary Forest and Dark Green colour – Primary Forest. Scale 1:50000

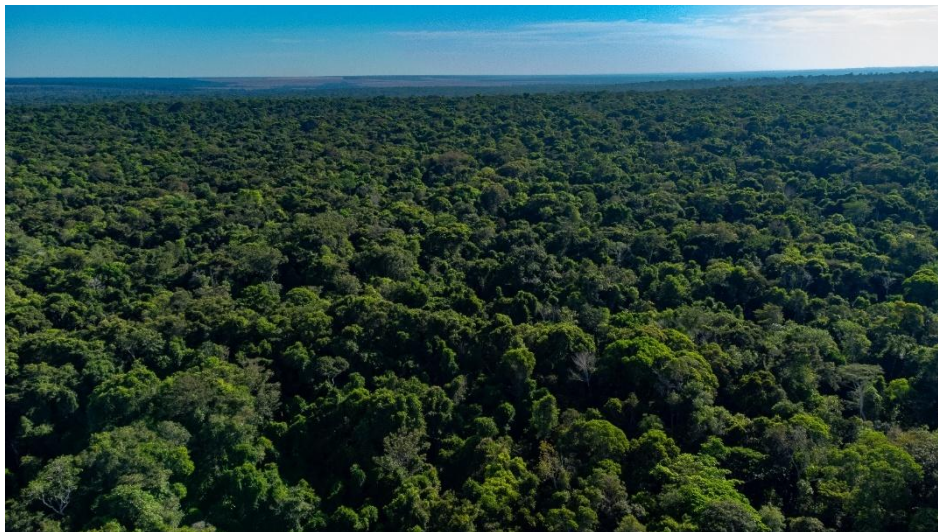
Following, drone images of the property to show that there was no conversion in land use despite the fire incident in 2020:



**1.5-12:** Agricultural area and Primary Forest vegetation border in LR. Source: DJI Drone Mini 2 (2023)



**1.5-13:** LR - Primary Forest Formation in the center of the property. Source: DJI Drone Mini 2 (2023)



**1.5-14:** LR - Primary Forest formation. Source: DJI Drone Mini 2 (2023)



**1.5-15:** Secondary vegetation with spaces after illegal deforestation. Source: DJI Drone Mini 2 (2023)



**1.5-16:** LR - Secondary Forest with different vegetation aspect and a small patch corresponding to the use of the soil for Other Temporary Crops (4.27774 ha), according to MapBiomas classification, probably due to illegal deforestation. The area was excluded from the proposed project area. Source: DJI Drone Mini 2 (2023)



**1.5-17:** LR - Forest diversity with up to 20 m high trees. Source: DJI Drone Mini 2 (2023)



**1.5-18:** LR - small patch corresponding to the use of the soil for Other Temporary Crops (4.27774 ha), according to MapBiomass classification, probably due to illegal deforestation. The area was excluded from the proposed project area. Source: DJI Drone Mini 2 (2023)



**1.5-19:** LR - Secondary Forest after fire event near the access road. Source: DJI Drone Mini 2 (2023)



**1.5-20:** LR - Heterogeneity of forest formation in the center of image. Probably lowland forest formation or natural recovery after fire event. Source: DJI Drone Mini 2 (2023)

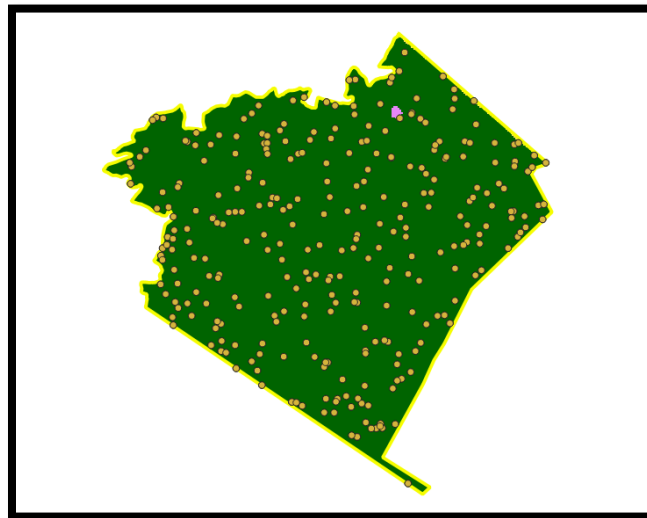
It is important to mention that a previous step related to the accuracy analysis of the reference base for the land use and cover was performed through GIS platform, comparing MapBiomass's 2021 Land Use and Cover Map with a satellite image from CBERS4A<sup>15</sup>, code WPM21, date 2021-07-02, resolution 2 x 2 meters (pan sharpening), according to SCM 0003 Methodology with the following results:

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<sup>15</sup> Specific parameters were added to find a proper image for the objective site. Satellite image is available at: <http://www.dgi.inpe.br/catalogo/explore>

**Table 1.** PIXEL comparison for LR area validation.

Number of pixels sampled	Mapbiomas Land Use and Cover Classification	Land Use and Cover Mapbiomas 2021	Mapbiomas 2021	CBERS4A 2021	Number of common pixels	match percentage %
300	3	Forest Formation	297	299	297	
	15	Pasture	2	0	0	
	41	Other Temporary Crops	1	1	1	
<b>Total</b>					<b>298</b>	<b>99,33</b>


**1.5-21:** 300 random points in the LR area under study for pixel analysis. Source: Mapbiomas (2021)

In conclusion, despite the fire that occurred in 2020, the justification for this compliance is based on the factor that the fire did not change the land use classification. The area remained classified as "Forest Formation" and was not converted to another land use.

➤ **Year 2020**

According to SCM0003 Methodology for Carbon Removals in Private Conservation Areas v.1.0, in order to account for carbon removal and stock, and considering the annex disposal of Project Boundary as shapefiles and KML/KMZ, the following steps were carried out:

Land Use and Occupation maps were extracted from MAPBIOMAS (Collection 9) platform for the years 2000, 2010, 2015, 2019 and 2020. The maps were treated and cut using geoprocessing software QGIS v.3.28.3 for the project boundaries (Legal Reserve area of Fazenda J. Crestani). The eligibility delineation of the areas proposed in the methodology (SCM0003 Section 5) was carried out, and ineligible areas were excluded,

resulting in project area presented in the last approved PDD version, leaving a total of area classified between primary and secondary forest formations.

The annual carbon increment parameters were surveyed using the Third National Communication of Brazil to the UNFCCC for Amazon biome, and applied based on the respective area and condition of the vegetation in each class of the vegetation cover within the project area, according to the calculation presented in the following equations.

$$[(AI^c \times 44)/12] * A = RV_y$$

Where:

A = Area of that class of vegetation cover (ha);

AI<sup>c</sup> = Annual carbon increment, which varies according to the biome and class of vegetation cover (tC/ha);

RV<sub>y</sub> = CO<sub>2</sub> removal for each class of vegetation cover, during year y (tCO<sub>2</sub>e/year).

The sum of CO<sub>2</sub> removals for each class of vegetation cover during year y (tCO<sub>2</sub>e/year) yields the total removals (tCO<sub>2</sub>e/year) for the project area during year y, according to equation below:

$$\sum RV_y = PR_y \text{ (Equation 2)}$$

Where:

$\sum RV_y$  = Sum of CO<sub>2</sub> removals for each class of vegetation cover during year y (tCO<sub>2</sub>e);

PR<sub>y</sub> = CO<sub>2</sub> removal under the project during year y (tCO<sub>2</sub>e).

Calculation sheet for either removals or emissions is found attached to this report.

Vegetation class	AI <sup>c</sup> (tC/ha)	A (ha)	RV <sub>2020</sub> (ton CO <sub>2</sub> e/year)
Primary Floodable Forest - Amazon	0.43	6.023	9
Primary Forest formation - Amazon	0.43	993.881	1,567
Secondary Floodable Forest - Amazon	4.96	295.417	5,372
Secondary Forest formation - Amazon	4.96	2,448.534	44,530
TOTAL eligible project area		3,743.854	-
<b>PR<sub>2020</sub></b>			<b>51,478</b>

Respectively for the year of 2020, as the start of the project is set for 30-September, the final removal value was calculated based on the annual increment proportional to the period from this date to 31-December (92 days), totaling 12,975 tCO<sub>2</sub>e, as per calculation sheet attached.

Biomass burning not have occurred within the project boundary after the implementation of the project in 30-September-2020, therefore causing no GHG emissions.

Even so, GHG emissions from biomass burning were estimated based on IPCC (2003).

$$EBBy = EBBCO_{2,y} + EBBN_{2O,y} + EBBCH_{4,y}$$

Where:

EBBy = Total GHG emission from biomass burning at year y (tCO<sub>2</sub>e/ha);

EBBCO<sub>2,y</sub> = CO<sub>2</sub> emission from biomass burning at year y (tCO<sub>2</sub>e/ha);

EBBN<sub>2O,y</sub> = N<sub>2</sub>O emission from biomass burning at year y (tCO<sub>2</sub>e/ha);

EBBCH<sub>4,y</sub> = CH<sub>4</sub> emission from biomass burning at year y (tCO<sub>2</sub>e/ha).

$$EBBN_2O_y = EBBCO_{2,y} * 12/44 * NCR * ERN_2O * 44/28 * GWPN_2O$$

Where:

$EBBN_2O_y$  = N<sub>2</sub>O emission from biomass burning at year y (tCO<sub>2</sub>e/ha);

$EBBCO_{2,y}$  = CO<sub>2</sub> emission from biomass burning at year y (tCO<sub>2</sub>e/ha);

NCR = Nitrogen to Carbon Ratio (IPCC default value = 0.02);

$ERN_2O$  = Emission ratio for N<sub>2</sub>O (IPCC default value = 0.007);

$GWPN_2O$  = Global Warming Potential for N<sub>2</sub>O.

$$EBBCH_{4,y} = EBBCO_{2,y} * 12/44 * ERCH_4 * 16/12 * GWPCH_4$$

Where:

$EBBCH_{4,y}$  = CH<sub>4</sub> emission from biomass burning at year y (tCO<sub>2</sub>e/ha);

$EBBCO_{2,y}$  = CO<sub>2</sub> emission from biomass burning at year y (tCO<sub>2</sub>e/ha);

$ERCH_4$  = Emission ratio for CH<sub>4</sub> (IPCC default value = 0.012);

$GWPCH_4$  = Global Warming Potential for CH<sub>4</sub>.

$$EBBCO_{2,y} = F_{burnt} * \sum_{p=1} (C_{p,y} * P_{burnt_p} * CE_p)$$

Where:

$EBBCO_{2,y}$  = CO<sub>2</sub> emission from biomass burning at year y (tCO<sub>2</sub>e/ha);

$F_{burnt}$  = Proportion of vegetation area burned (%);

$C_{p,y}$  = Average carbon stock per hectare in the carbon pool p burnt at year y (tCO<sub>2</sub>e/ha);

$P_{burnt_p}$  = Average proportion of mass burnt in the carbon pool p (%);

$CE_p$  = Average combustion efficiency of the carbon pool p (IPCC default of 0.4);

p = Carbon pool that could burn, above-ground biomass.

According to IPCC (2003), the default value for combustion efficiency of 0.5 should be used. The Nitrogen to Carbon Ratio (NCR) is approximated to be about 0.01.

Thus, the total GHG emissions from biomass burning at year y in the project area at the project scenario (EBBPSPA<sub>y</sub>) shall be calculated as follows:

$$EBBPSPA_y = BAPA_y * EBB_y$$

Where:

EBBPSPA<sub>y</sub> = Total actual GHG emissions from biomass burning at year y in the project area in the project scenario (tCO<sub>2</sub>e);

BAPA<sub>y</sub> = Burned area within the project area at year (ha);

EBB<sub>y</sub> = Total GHG emission from biomass burning at year y (tCO<sub>2</sub>e/ha).

Therefore, project emissions during year 2020 (PE<sub>2020</sub>) are equivalent to the total actual GHG emissions from biomass burning at year 2020 in the project area in the project scenario (EBBPSPA<sub>y</sub>).

In order to achieve data related to BAPA<sub>2020</sub> platform MapBiomass Fire Collection 3.0<sup>16</sup> was used, accessible through Google Earth Engine for the project area boundaries. Images were then exported as *geotiff* to QGIS and lately cut according to project boundaries (Legal Reserve areas). Final polygon area (hectares) composed BAPA<sub>2020</sub>.

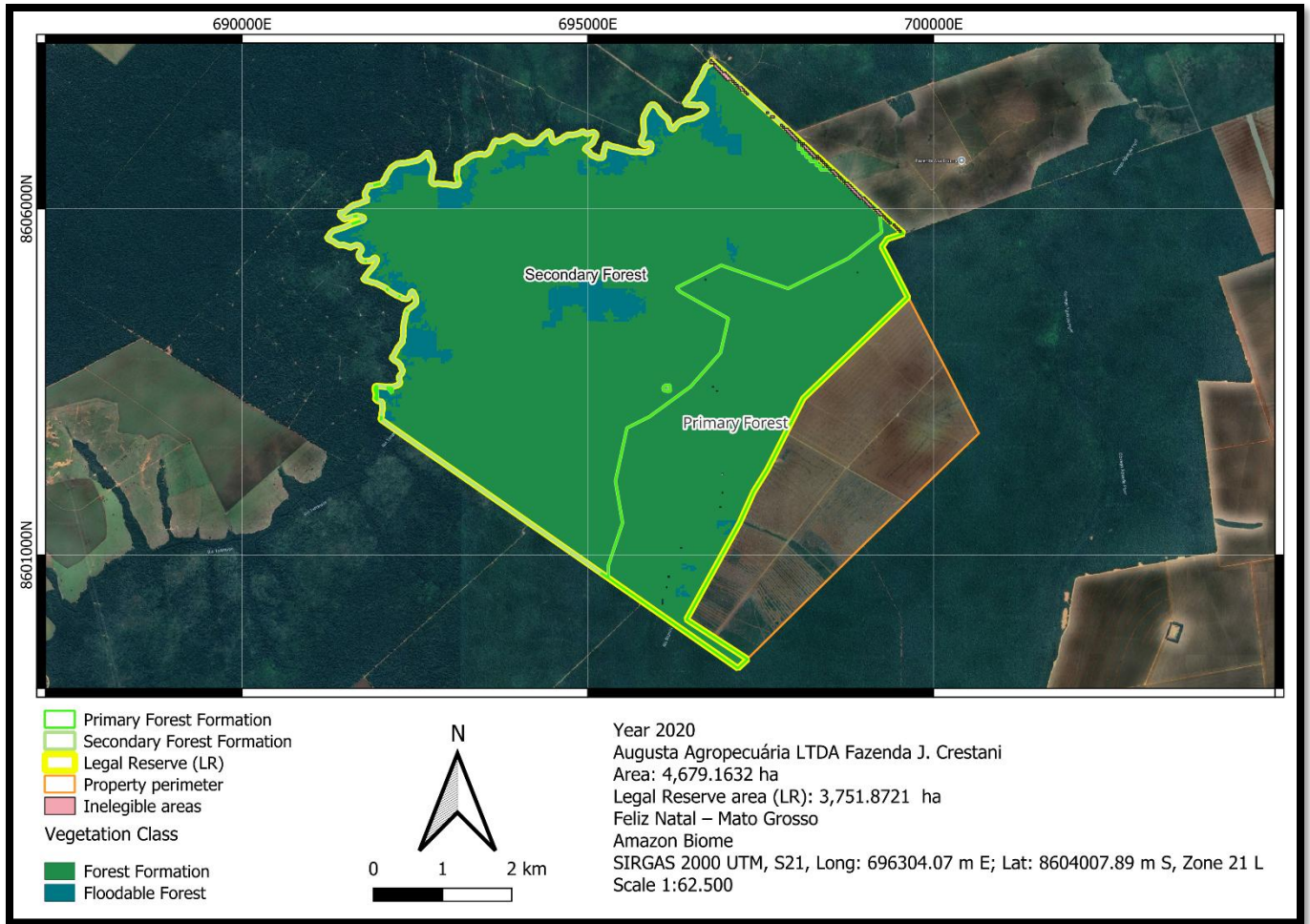
According to SCM0003 values related to GHG emissions from biomass burning were composed of the following:

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<sup>16</sup> Available at:

[https://code.earthengine.google.com/9966ca45f3bbb261fa993cd24810318a?accept\\_repo=users%2Fmapbiomas%2Fuser-toolkit](https://code.earthengine.google.com/9966ca45f3bbb261fa993cd24810318a?accept_repo=users%2Fmapbiomas%2Fuser-toolkit).

Parameter	Value	Source
$F_{\text{burnt}}$	46.4 %	sheet
$C_{\text{AB,DW,LI,2020}}$ Fs (Sub-montane Semideciduous Seasonal Forest)	233.49	sheet
$P_{\text{burnt AB,DW,LI,2020}}$ Fs (Sub-montane Semideciduous Seasonal Forest)	35.6 %	sheet
$CE_{\text{AB}}$	0.40	sheet
$EBBCO_{2,2020}$	15.43	sheet
$ERCH_4$	0.012	sheet
$GWP-CH_4$	27.9	sheet
$EBBCH_{4,2020}$	1.8783	sheet
$NCR$	0.02	sheet
$ERN_2O$	0.007	sheet
$GWP-N_2O$	273	IPCC Fifth Assessment Report
$EBBN_2O_{2020}$	0.2527	Calculation (equation provided in this Section)
$EBB_{2020}$	17.53	Calculation (equation provided in this Section)
$BAPA_{2020}$	0.00 ha	MapBiomass Fire Collection 3.0
<b><math>EBBPSPA_{2020}</math></b>	<b>0.00 tCO<sub>2</sub>e</b>	<b>Calculation (equation provided in this Section) round up</b>



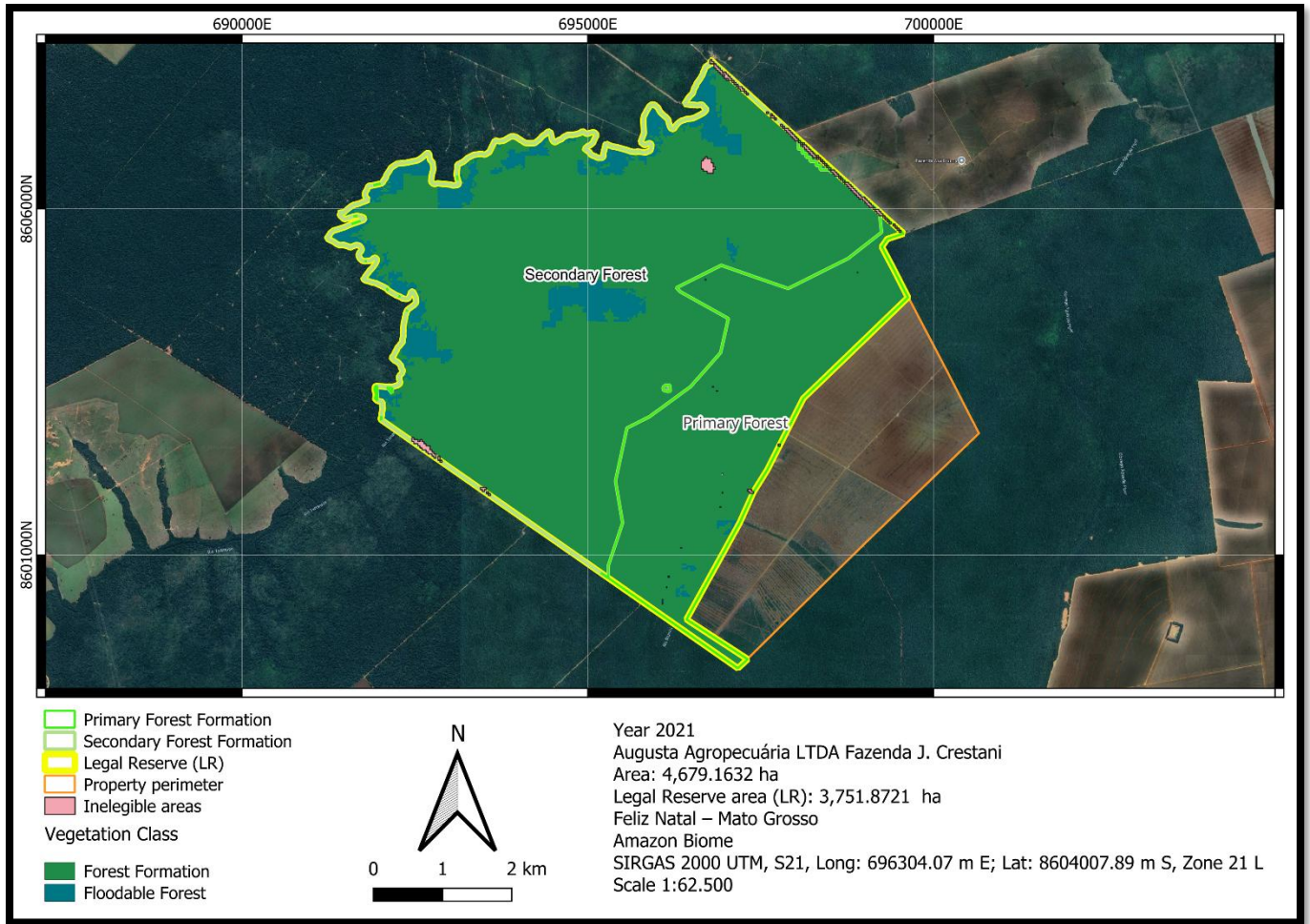
**Image 5.2-1:** Final classification for 2020 in project area using methodology proposed

➤ **Year 2021**

The same procedures were applied as for 2020, with the addition of 2021's Land Use and Occupation map from MapBiomass (Collection 9.0) within delineation applied before, leading to the following:

Vegetation class	AI <sup>c</sup> (tC/ha)	A (ha)	RV <sub>2021</sub> (ton CO <sub>2</sub> e/year)
Primary Floodable Forest - Amazon	0.43	6.023	9
Primary Forest formation - Amazon	0.43	993.881	1,567
Secondary Floodable Forest - Amazon	4.96	295.417	5,372
Secondary Forest formation - Amazon	4.96	2,441.725	44,406
TOTAL eligible project area		3,737.045	-
<b>PR<sub>2021</sub></b>			<b>51,354</b>

In order to achieve data related to BAPA<sub>2021</sub> platform MapBiomass Fire Collection 3.0 was used, accessible through Google Earth Engine for the project area boundaries. As a result, it was observed that there are no fire event areas this year within project areas, meaning that BAPA<sub>2021</sub> = 0.00 ha. This leads to the conclusion that **EBBPSA<sub>2021</sub> is 0.00 tCO<sub>2</sub>e**.



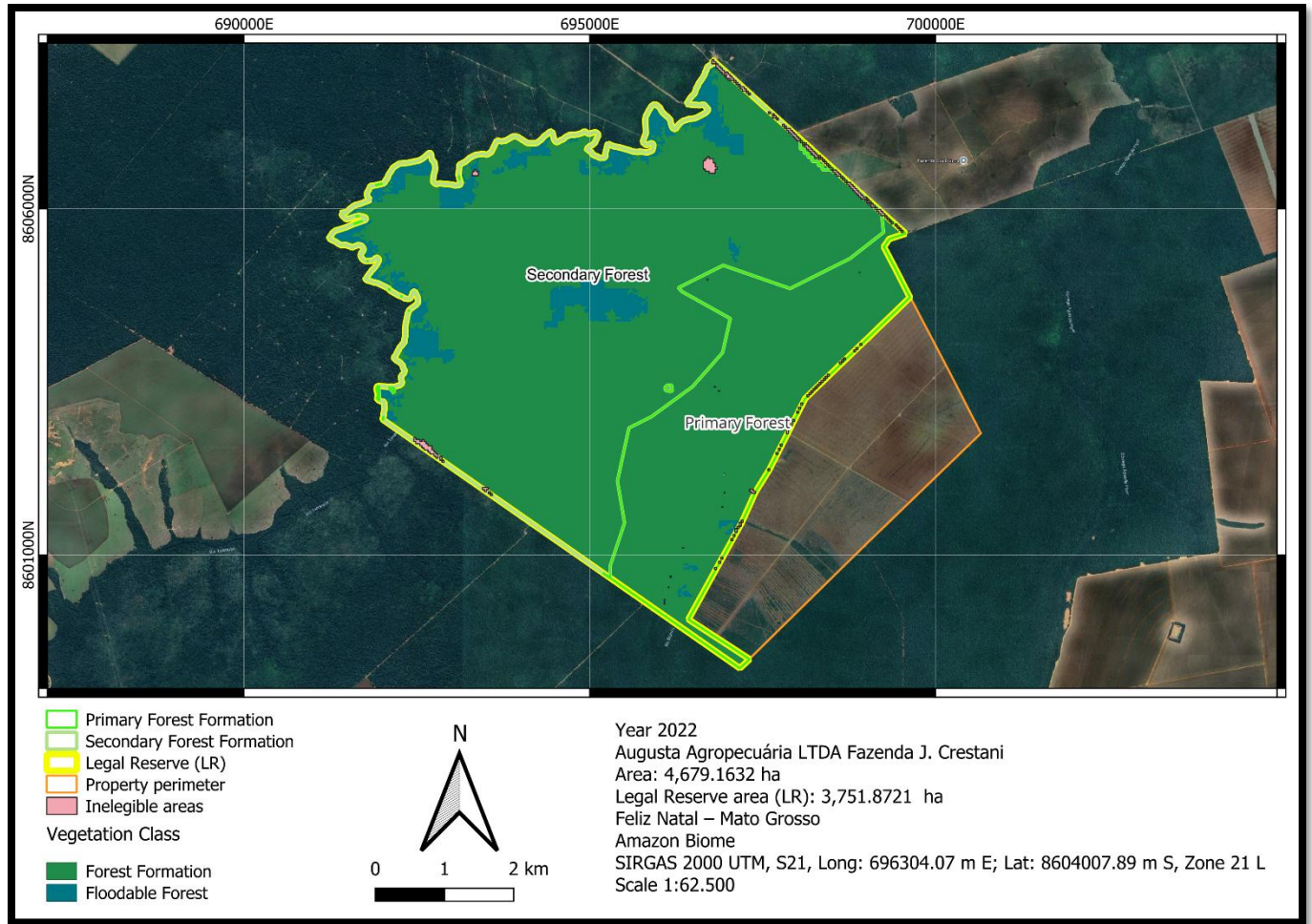
**Image 5.2-2:** Final classification for 2021 in project area using methodology proposed

➤ **Year 2022**

The same procedures were applied as for 2021, with the addition of 2022's Land Use and Occupation map from MapBiomas (Collection 9.0) within delineation applied before, leading to the following:

Vegetation class	AI° (tC/ha)	A (ha)	RV <sub>2022</sub> (ton CO <sub>2</sub> e/year)
Primary Floodable Forest - Amazon	0.43	6.023	9
Primary Forest formation - Amazon	0.43	993.619	1,566
Secondary Floodable Forest - Amazon	4.96	294.806	5,361
Secondary Forest formation - Amazon	4.96	2,441.987	44,411
TOTAL eligible project area		3,736.434	-
<b>PR<sub>2022</sub></b>			<b>51,347</b>

In order to achieve data related to BAPA<sub>2022</sub> platform MapBiomas Fire Collection 3.0 was used, accessible through Google Earth Engine for the project area boundaries. As a result, it was observed that there are no fire event areas this year within project areas, meaning that BAPA<sub>2022</sub> = 0.00 ha. This leads to the conclusion that **EBBPSA<sub>2022</sub> is 0.00 tCO<sub>2</sub>e.**



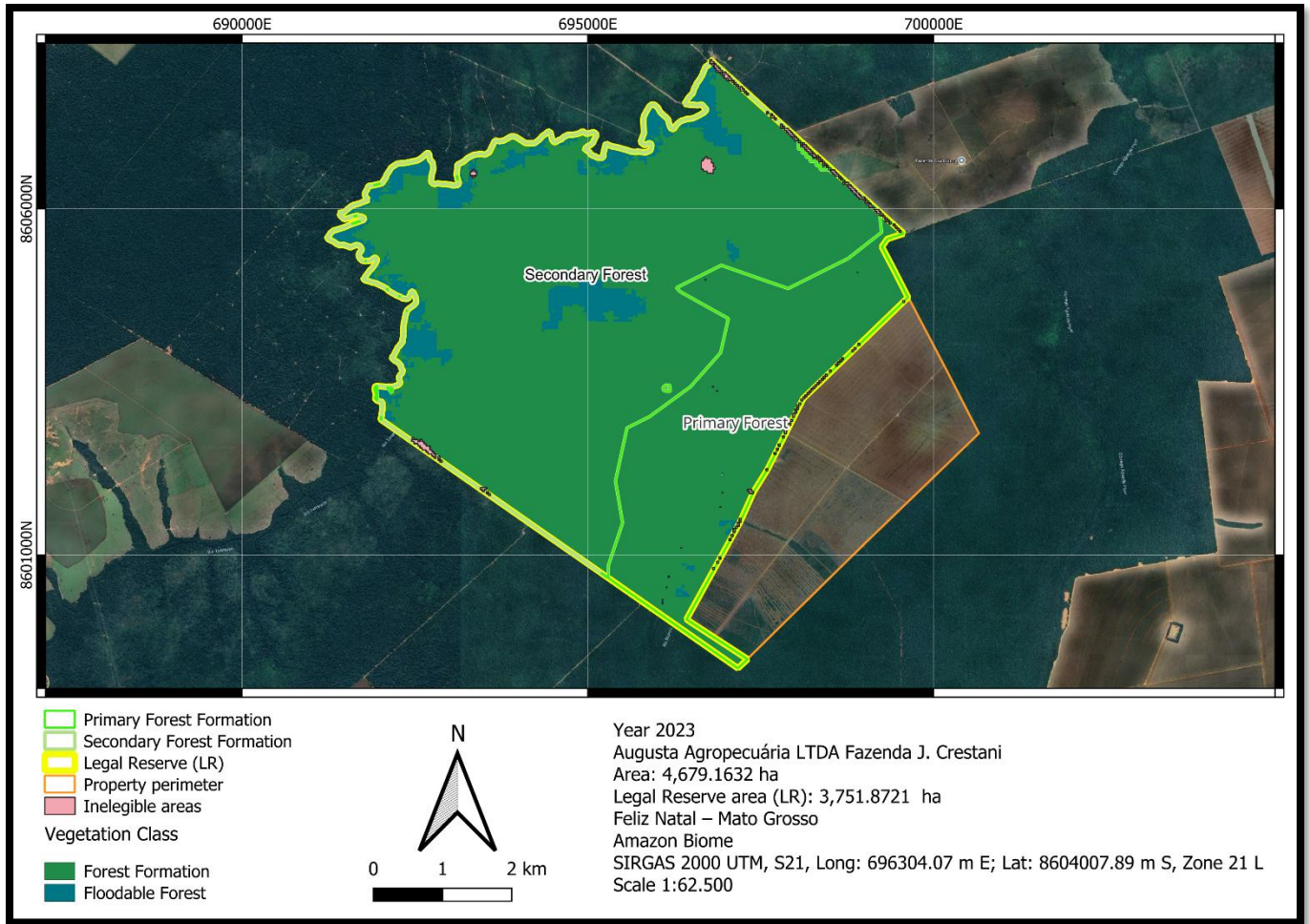
**Image 5.2-3:** Final classification for 2022 in project area using methodology proposed

➤ **Year 2023**

The same procedures were applied as for 2022, with the addition of 2023's Land Use and Occupation map from MapBiomass (Collection 9.0) within delineation applied before, leading to the following:

Vegetation class	AI° (tC/ha)	A (ha)	RV <sub>2023</sub> (ton CO <sub>2</sub> e/year)
Primary Floodable Forest - Amazon	0.43	5.586	8
Primary Forest formation - Amazon	0.43	993.968	1,567
Secondary Floodable Forest - Amazon	4.96	296.377	5,390
Secondary Forest formation - Amazon	4.96	2,445.653	44,478
TOTAL eligible project area		3,741.585	-
<b>PR<sub>2023</sub></b>			<b>51,443</b>

In order to achieve data related to BAPA<sub>2023</sub> platform MapBiomass Fire Collection 3.0 was used, accessible through Google Earth Engine for the project area boundaries. As a result, it was observed that there are no fire event areas this year within project areas, meaning that BAPA<sub>2023</sub> = 0.00 ha. This leads to the conclusion that **EBBPSPA<sub>2023</sub> is 0.00 tCO<sub>2</sub>e.**



**Image 5.2-4:** Final classification for 2023 in project area using methodology proposed

## 5.3 Leakage

According to methodology applied, areas where there have been changes in the land use and cover (“conversion” to alternative land use) within the 10 years prior to the project starting date shall be ineligible. Therefore, there is no possibility of displacement of pre-project agricultural activities from the project boundary to outside the project area. Consequently, due to this methodology, this monitoring report does not include leakage emissions.

## 5.4 Net GHG emission reductions and removals

Year	Baseline emissions or removals (tCO <sub>2</sub> e)	Project emissions or removals (tCO <sub>2</sub> e)	Leakage emissions (tCO <sub>2</sub> e)	Net GHG emission reductions or removals (tCO <sub>2</sub> e)	Buffer allocation (tCO <sub>2</sub> e)	SCUs eligible for Issuance
2020 (30-September to 31-December)	0	12,975	0	10,121	2,855	10,121
2021	0	51,354	0	40,056	11,298	40,056
2022	0	51,347	0	40,051	11,296	40,051
2023	0	51,443	0	40,126	11,317	40,126
<b>Total</b>	<b>0</b>	<b>167,119</b>	<b>0</b>	<b>130,353</b>	<b>36,766</b>	<b>130,353</b>

# 6. Broader Sustainability Results

## 6.1 Broader Sustainability Results

### 6.1.1 Social Resource

#### Social Resource

<b>Indicator</b>	S-002 Communication with stakeholders				
<b>Description</b>	Evaluates the process for contacting stakeholders in the planning, implementation and operation stages. The main stakeholder is Fazenda Palmasola, Stakeholders that should be identified and involved in the consultation process: <ul style="list-style-type: none"> <li>- local institutions and NGOs</li> <li>- local team responsible for coordinating the implementation additional programs</li> <li>- local public agencies and municipalities.</li> </ul>				
<b>Situation</b>	Stakeholders were communicated about the project, as described and detailed in Section 2, in order to meet the premises of the SocialCarbon standard.				
There is no communication with local stakeholders	Some consultations were held, but with some gaps and they did not fulfil legal obligations of the SOCIALCARBON Standard's minimal requirements	<b>Fulfilment of legal obligations only and obligations of the SOCIALCARBON Standard</b>	Additional consultation process was held to assess the local needs and/or to present the carbon project to the local stakeholders	Permanent feedback opportunity to stakeholders involved	Existence of a systematic and permanent approach for communicating with stakeholders, such as creation of specific forums, groups or committees
<b>Score</b>	3				
<b>Prospects</b>	To develop permanent and systematic communication with all those involved in the project, building possible interfaces with similar communication networks so that feedback may be used by other related projects or project proponents				
<b>SDG Contributions</b>	8 – Decent work and economic growth, Target: 8.8, Indicator: 8.8.2 10 – Reduce inequalities, Target: 10.2, Indicator: 10.2.1				
<b>Rationale</b>	Communication with stakeholders can create jobs, training, and promote inclusive economic growth, ensuring shared benefits for local communities. The projects can maximize positive impacts and develop sustainably, ensuring participation, transparency, and fair distribution of				

benefits, thus reducing social and economic inequalities and improving local quality of life through investments in infrastructure and services.

<b>Indicator</b>	S-007 Local indigenous / traditional peoples assistance					
<b>Description</b>	Evaluate the project developer's socioenvironmental investment to promote the reduction of inequalities among indigenous / traditional people. The indigenous / traditional people can be identified as natives (indigenous) with knowledge regarding cultivation and fauna and flora preservation, and homeopathy, an inherited ancestral practice. The investments can be for: <ul style="list-style-type: none"> <li>- Education;</li> <li>- Health;</li> <li>- Infrastructure;</li> <li>- Sport;</li> <li>- Culture;</li> <li>- Others (donations, for example)</li> </ul>					
<b>Situation</b>	According to the "Conservation Units and Indigenous Territories in the region of the property Image", there are no interference in Indigenous Lands regarding this project. Also, no socioenvironmental investment associated to indigenous or traditional community identified. However, there are traditional families who live and work near the project area and they may be assisted through project activities/actions. The actions are in the planning phase by the socio-environmental partner and benefit-sharing entity of the project, the Instituto Homem Pantaneiro.					
<b>There is no socio-environmental investment directed to indigenous / traditional communities.</b>	The company promotes socioenvironmental actions for at least one of the following topics: <ul style="list-style-type: none"> <li>- Education;</li> <li>- Health;</li> <li>- Infrastructure;</li> <li>- Sport;</li> <li>- Culture;</li> <li>- Others.</li> </ul>	The company executes socioenvironmental actions for two of the following topics: <ul style="list-style-type: none"> <li>- Education;</li> <li>- Health;</li> <li>- Infrastructure;</li> <li>- Sport;</li> <li>- Culture;</li> <li>- Others.</li> </ul>	The company executes socioenvironmental actions for three of the following topics: <ul style="list-style-type: none"> <li>- Education;</li> <li>- Health;</li> <li>- Infrastructure;</li> <li>- Sport;</li> <li>- Culture;</li> <li>- Others.</li> </ul>	The company executes socioenvironmental actions for four or more of the following topics: <ul style="list-style-type: none"> <li>- Education;</li> <li>- Health;</li> <li>- Infrastructure;</li> <li>- Sport;</li> <li>- Culture;</li> <li>- Others.</li> </ul>	Besides de previous scenario, the project proponent sought new ways to benefit the local people.	
<b>Score</b>	1					
<b>Prospects</b>	This project expects to provide any support to sensible indigenous or traditional communities within the Pantanal biome, aiming as topics as possible/applicable along project's lifetime.					
<b>SDG Contributions</b>	3 – Good health and well-being, Target: 3.4, Indicator: 3.4.1 10 – Reduced Inequalities, Target: 10.2. Indicator: 10.2.1					
<b>Rationale</b>	By providing any support to sensible indigenous / traditional communities around the project area, this project aims to reduce inequalities and improve well-being. Policies should be universal in					

principle, paying attention to the needs of disadvantaged and marginalized populations like the Indigenous / traditional locals.

<b>Indicator</b>	S-012 Social Impact					
<b>Description</b>	Evaluates the relevant social impacts occurred due to the project, including additional social programs for the stakeholders and broader community, such as regional social actions developed in Mato Grosso do Sul, Brazil, by the non-governmental organisation “Instituto Homem Pantaneiro”. Verification of actions aimed at social theme developed by it, with possibly updating this indicator as the partnership is well established and precise. This indicator is linked with social investments to be made within this project, as detailed in PDD v.12 Section 3.6 – Additionality Major social areas related to this indicator will be further mapped and described as project developments, along with main beneficiaries.					
<b>Situation</b>	IHP and the project proponent are under specific contractual definitions, but are developing the partnership and planning the activities, awaiting incomes of the project to start implementing the activities.					
Not known.	<p><b>Project is expected to deliver some benefits, but there is no evidence that benefits are actually happening (e.g. Actions are in planning stage with high uncertainty that benefits can be delivered).</b></p>	<p>Actions are in place, but there is high need of corrective actions or deviations in the plan of activities so benefits can be delivered.</p>	<p>Some programs were held successfully, but project delivers benefits in to only one of the major areas</p>	<p>Some programs were held successfully and Project delivers benefits in to two of the major areas.</p>	<p>Project delivers benefits in to three or more of the major areas. And/or There is a comprehensive framework and plan for the assessment of social effects of the project.</p>	
<b>Score</b>	2					
<b>Prospects</b>	To develop relevant and measurable contribution crossing project and social organisation (IHP), reaching, as applicable, all the major areas within social indicator.					
<b>SDG Contributions</b>	3 – Good health and well-being, Target: 3.4, Indicator: 3.4.1 10 – Reduced Inequalities, Target: 10.2, Indicator: 10.2.1					
<b>Rationale</b>	Having the support of renowned institutions in the area of environment and society, such as IHP, to carry out actions and measure social impacts, is a fundamental part of the development and success of the project through social programs.					

<b>Indicator</b>	S-014 Social research
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<b>Description</b>	Examines level of research into social, demographic and economic aspects of communities in the project. Relevant research for the project includes: <ul style="list-style-type: none"> <li>- Community satisfaction survey: gauging opinions of all projects affecting them;</li> <li>- Education levels among the youth and the community;</li> <li>- Economic research such as levels of income, means of subsistence;</li> <li>- Communities' views of their own needs;</li> <li>- Demographic research: numbers of people and profiles.</li> </ul>				
<b>Situation</b>	IHP and the project proponent are under specific contractual definitions, but are developing the partnership and planning the research activities, awaiting incomes of the project to start implementing the activities.				
<b>No research was conducted involving communities in the project area.</b>	Social research involving communities in the project area, but it has not been updated for over 5 years.	Social research involving communities in the project area has been conducted in the last 5 years, but it only covers up to two relevant aspects.	Social research involving communities conducted in the last 5 years, and covers up to four relevant aspects.	Social research involving communities conducted in the last 5 years, and covers all relevant aspects.	As well as the previous scenario, there is a partnership with an institution involving social research on communities in the project area.
<b>Score</b>	1				
<b>Prospects</b>	It is expected that the partnership with IHP will evolve to the point where the institution will map and research all relevant social aspects involving the project area, aiming to foster other projects and future parallel social actions.				
<b>SDG Contributions</b>	10 – Reduced Inequalities, Target: 10.2, Indicator: 10.2.1 11 – Sustainable Cities and Communities, Target: 11.1, Indicator: 11.1.1				
<b>Rationale</b>	By mapping and understanding social aspects of a region, social actions to promote communities become more assertive and precise, potentializing the reduction of social inequality, as well as the promotion of sustainable and resilience practices within communities.				

<b>Indicator</b>	S-019 Women Inclusion
<b>Description</b>	Evaluates initiatives implemented by the company to promote women inclusion in the community activities. Campaigns: Punctual actions that do not have continuity, such as lectures, women's inclusion week, among others. Program: Set of continuous actions to promote women inclusion in the community activities, offering equal opportunities of access to goods and services for all.
<b>Situation</b>	According to Fazenda J. Crestani's manager and to the visit made to the property by the project proponent, there is no women registered between workers, but there is one directly related to project that works for the neighbour farm Fazenda Palmasola. Landowner and project proponent are intended to promote female positions in the project chain, whether related to the project or not, such as hiring women to monitor the areas, biodiversity, training, etc, but also roles as cooking and cleaning, which are more likely to be accepted within a farm, among others, ensuring equal conditions related to men's positions. Actions are planned to take place from 2024 onwards, with

	the application of a social questionnaire administered by the Instituto Homem Pantaneiro (IHP) and the results will be presented in the 2nd MR. Several online meetings will be held by the PP and IHP in 2024 to understand the social aspects of the project. In addition, the proponent provides an ethical code of conduct that aligns with the safeguarding of these principles, emphasising the promotion of Human Rights, Respect for diversity, prevention of Moral and Sexual Harassment, Freedom of expression, Safety and health, among other related aspects that can be used for the stakeholders.				
There are no initiatives related to women inclusion.	<b>There are plans to implement actions to promote women inclusion in the community activities.</b>	There are campaigns aiming to promote women inclusion in the community activities.	There are monitored programs to promote women inclusion in the community activities.	In addition to the previous scenario, there are positive results related to women inclusion in the communities.	There is no barrier and women are fully integrated into the community.
<b>Score</b>	2				
<b>Prospects</b>	It is expected that the partnership with IHP will evolve to the point where the institution will map and research all relevant social aspects involving the project area, aiming to foster other projects and future parallel social actions.				
<b>SDG Contributions</b>	3 – Good health and well-being, Target: 3.4, Indicator: 3.4.1 8 - Decent Work and Economic Growth, Target: 8.8, Indicator: 8.8.2 10 – Reduced Inequalities, Target: 10.2, Indicator: 10.2.1				
<b>Rationale</b>	By mapping and understanding social aspects of a region, social actions to promote communities become more assertive and precise, potentializing the reduction of social inequality, as well as the promotion of sustainable and resilience practices within communities.				

## 6.1.2 Human Resource

<b>Indicator</b>	H-004 Community education and training				
<b>Description</b>	Evaluates the relevant education and training programs related to the project, including additional programs to the stakeholders and broader community. The following major areas are considered: - Training: technical; IT and digital; courses, etc. - Education: basic and supplementary, environmental awareness-raising, etc.				
<b>Situation</b>	According to Fazenda J. Crestani's manager, there are no training, awareness or environmental education related to conservation of native areas of the property.				
<b>The project does not offer any education and training activities.</b>	The project offers only one education or training activity.	The project offers two education or training activities.	The project offers three education or training activities.	The project offers four education or training activities.	The project offers more than four education or training activities.

<b>Score</b>	1
<b>Prospects</b>	Increasing employees and community's environmental conscience about conservation of native vegetation areas and related themes
<b>SDG Contributions</b>	13 – Climate Action, Target: 13.3, Indicator: 13.3.1
<b>Rationale</b>	By increasing community and employee's environmental conscience, this project offers an opportunity for people to think about each common action related to their biome and to native vegetation, which may approach them to relevant attitudes regarding climate change.

<b>Indicator</b>	H-008 Equipment and infrastructure
<b>Description</b>	Evaluates the project proponent's investment and encouragement relating to equipment and infrastructure (sanitation, household, electricity, transport, among others) for the community's benefit.
<b>Situation</b>	According to Fazenda J. Crestani's manager, there are no infrastructure and structure inside the project area that is used for the project, despite of that, the neighbour farm, that is used as a headquarter for the carbon project, has investments related to community structures, such as home improvements, and is planning to invest in equipment/vehicles/road maintenance to better serve the project's monitoring needs. An investment was made by proponent in a specific drone to support the project's activities. The future plans are to invest in other more technological equipment, together with training for the community to improve measurements related to the project.

The project proponent has not provided equipment and does not promote/ invest in infrastructural improvements for the benefit of communities in the project area.	<b>The project proponent has provided the community with equipment relating to monitoring the project area (e.g. GPS).</b>	The project proponent has provided the community with equipment relating to monitoring the project area (e.g. GPS) and also provides equipment for other purposes.	The project proponent promotes/ invests in infrastructural improvements for the benefit of communities in the project area, but the initiatives are not yet implemented.	The project proponent promotes/ invests in infrastructural improvements for the benefit of communities in the project area, but the initiatives benefit few community members (e.g. building a house).	The project proponent promotes/ invests in infrastructural improvements for the benefit of communities in the project area, and the initiatives benefit a significant proportion of the community (e.g. access to transport).
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<b>Score</b>	2
<b>Prospects</b>	Developing household infrastructure as applicable to better serve the communities involved, as well as to improve logistical issues such as roads for transportation and improving the quality of transportation to the nearest town or school.

<b>SDG Contributions</b>	9 – Industry, Innovation and Infrastructure, Target: 9.5, Indicator: 9.5.2
<b>Rationale</b>	With improvements in equipment and infrastructure for the community, the aim is to foster solutions in innovation that will allow us to improve work related to the project, as well as boosting the economic development, well-being and resilience of communities, with appropriate improvements.

<b>Indicator</b>	H-010 Community Health
<b>Description</b>	Evaluates the presence of initiatives and campaigns relating to community health, as well as access and communication with hospitals in neighbouring cities.
<b>Situation</b>	According to Fazenda J. Crestani's manager, the property provides medicine if it's necessary for the outsourced workers, operated punctually by the neighbour property manager, but there are no health professionals involved.

No activities relating to community health are being undertaken.	<b>There are isolated initiatives, which have little impact, in the health area, for example: distribution of informative pamphlets.</b>	Project area has ONE of the following: (i) There are active health campaigns; (ii) There are active clinics and/or health centres with a doctor present available to the community; (iii) basic medicines are available to the community.	Project area has TWO of the following: (i) There are active health campaigns; (ii) There are active clinics and/or health centres with a doctor present available to the community; (iii) basic medicines are available to the community.	Project area has ALL of the following: (i) There are active health campaigns; (ii) There are active clinics and/or health centres with a doctor present available to the community; (iii) basic medicines are available to the community.	As well as the previous scenarios, in case of emergency, means of communication and access to the nearest hospital to the community are available.
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<b>Score</b>	2
<b>Prospects</b>	Raising community awareness of health issues in general, ensuring access to necessary medicines and vaccinations, as well as support for medical referrals when necessary.
<b>SDG Contributions</b>	3 – Good Health and Well-Being, Target: 3.4, Indicator: 3.4.1 8 - Decent Work and Economic Growth, Target: 8.8, Indicator: 8.8.2
<b>Rationale</b>	Through this action, the project is related to reducing specific mortality rates for all ages, as well as reducing epidemics and IST, preventing drug and alcohol use, among others.

<b>Indicator</b>	H-011 Worker health and safety
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<b>Description</b>	<p>Evaluates the health and safety conditions of work, often ignored by employers. Evaluated items include: First aid kit, Re-entry plate in recently sprayed fields, Personal Protective Equipment - PPE, Work safety training, etc.</p> <p>Avoiding community exposure to increased health risks and not affecting the health of the workers and the community.</p> <p>Ensuring that there is no forced labour, and that all employment follows Brazilian labour and occupational health and safety laws, with obligations under international law, and consistency with the principles and standards embodied in the International Labour Organization (ILO) fundamental conventions.</p>				
<b>Situation</b>	<p>According to Fazenda J. Crestani's manager and to conference of documents, there are no workers under the regulatory "CLT" contract, in accordance with the applicable Brazilian legislation – named "Consolidação das Leis Trabalhistas", Law No. 5,452, 1943. This is the main law that covers and guarantees the rights of workers in this country. No specific actions have been implemented yet by projects context.</p>				
<b>The project did not carry out actions or activities to promote safety to employees.</b>	<p>Campaigns, training, or partnerships with entities linked to occupational safety occur occasionally, but they are considered not to be effective, (accidents have occurred despite them.</p>	<p>Campaigns, training, or partnerships with entities linked to occupational safety occur occasionally and are effective (no accidents have occurred in the monitoring period)</p>	<p>Campaigns, training, or partnerships with entities linked to occupational safety occur frequently (monthly or bimonthly) and are effective (employees use the acquired knowledge and no accidents have occurred in the monitoring period)</p>	<p>In addition to scenario 4, the Proponent has safety plans and goals that are satisfactorily executed.</p>	<p>In addition to the previous scenario, the Proponent has an active/valid certification regarding health and safety aspects, fully complies with legislation and provides additional benefits that contribute to health and safety at work.</p>
<b>Score</b>	1				
<b>Prospects</b>	<p>Regular improvements of employees working equipment, consciousness and conditions are expected to be performed with time, along with specific campaigns, training, or partnerships.</p>				
<b>SDG Contributions</b>	<p>8 – Decent Work and Economic Growth, Target: 8.8, Indicator: 8.8.2</p>				
<b>Rationale</b>	<p>Guaranteeing compliance with work and safety conditions, as well as regular improvements in working conditions may promote conditions that allow people to have quality jobs.</p>				
<b>Indicator</b>	H-022 Research incentive				
<b>Description</b>	<p>Evaluates whether the project promotes innovation through partnerships with universities and socioenvironmental organizations to develop research focused on local development.</p>				

<b>Situation</b>	The project proponent will seek to form partnerships with regional Universities such as UNEMAT - Universidade do Estado de Mato Grosso. A project is being submitted for funding by FINEP <sup>17</sup> , for 1- the development of a project management platform, which is in operation for managing the current project (processes and documents), as well as for commercializing eventual carbon credits, and 2- the development of an environmental multiparameter station (EMA, in Portuguese, for Estação Multiparamétrica Ambiental) for real-time monitoring of plant health, growth and biodiversity.				
The project proponent has no partnership with a research body/researcher/s/university/public agency/institution and does not have partnership plans.	<b>The project proponent has no partnership with a research body/researcher/s/university/public agency/institution but has plans to establish partnerships.</b>	The project proponent has no partnership with a research body/researcher/s/university/public agency/institution but invests in academic research.	The project proponent maintains a partnership with a research body/researcher/s/university/public agency/institution but there is no security that the research will be continued in a medium term.	The project proponent maintains a partnership with a research body/researcher/s/university/public agency/institution and provides funding for research ensuring the continuity of the research.	In addition to scenario 5, the research brought benefits to the local community.
<b>Score</b>	2				
<b>Prospects</b>	It is expected that the research carried out in partnership with the project will potentially be funded by this or future projects in the region, bringing significant developments to the applicable project areas, such as the accuracy of measuring social benefits or ecosystem services in the project areas.				
<b>SDG Contributions</b>	9 – Industry, Innovation and Infrastructure, Target: 9.5, Indicator: 9.5.2 15 – Life on land, Target: 15.2				
<b>Rationale</b>	The development of cutting-edge technology for more reliable measurements of environmental data in the field, as well as platforms for managing this data, are important to support sustainability actions in the face of climate change, as well as to technologically develop educational institutions.				

### 6.1.3 Financial Resource

<b>Indicator</b>	F-003 Alternative income sources
<b>Description</b>	Evaluates whether the project created alternative sources of income generation for the communities living within/surrounding the project area.

<sup>17</sup> FINEP. Brazilian public institution with the aim of promoting the economic and social development of Brazil through the public promotion of Science, Technology and Innovation in companies, universities, technological institutes and other public or private institutions. Available at: <http://finep.gov.br/>.

<b>Situation</b>	The property holds an exclusive income source from its only activity, which is agriculture. There is a plan to be developed in order for the community to be able to extract non-timber forest products sustainably, such as seeds for seedlings, which are present within the project area, as detailed in Section 1.13 of the PDD v.12.					
The Project does not generate any alternative income sources for the local communities.	<b>Project proponent, in partnership with the surrounding communities/workers, is planning how it can create an alternative income source and/or alternative use of the soil.</b>	The project generates one alternative income source for the local communities/workers.	The project generates two alternative income sources for the local communities/workers.	The project generates three alternative income sources for the local communities/workers.	The project generates four or more alternative income sources for the local communities/workers.	
<b>Score</b>	2					
<b>Prospects</b>	It is expected that the project will initially find a solid and safe alternative source of income for its community within project areas, with new sources being explored later.					
<b>SDG Contributions</b>	1 – No Poverty, Target 1.1, Indicator 1.1.1					
<b>Rationale</b>	This initiative aims to ensure that all men and women, particularly the poor and vulnerable, have equal rights to economic resources, as well as access to natural resources that may potentially reduce their economic vulnerability.					

<b>Indicator</b>	F-006 Competitive Advantage					
<b>Description</b>	Evaluates if the Company obtained some economic benefits (cost reduction, offering products or services of low-carbon emission) or image improvements due to the project developing or other actions focus on climate change.					
<b>Situation</b>	The project integrates with the farm's strategic plan to align with global sustainability demands by synchronising grain production, its main product, with forest conservation and socio-environmental practices, thereby presenting a potential competitive advantage in the market it operates within. Awaiting the verification process to start the development of such strategy.					
The company already had economic or image loss, related to the absence of initiatives to mitigate climate change.	The project had a negative impact on the company's economic performance or in its image.	The project didn't have a significant impact on company's economic performance or image improvement.	The project didn't have a significant impact on company's economic performance; however the project makes part of a sustainability	<b>The project had a positive impact on the company's economic performance or in its image.</b>	The project is aligned with business strategies related to the offering of sustainable products or services or low carbon emission.	

			strategy of the company.		
<b>Score</b>	5				
<b>Prospects</b>	It is expected that the project will impact the economic performance of the farm. In a near future instance, the agriculture product of the farm could be offered as a low carbon emissions product, throughout their production chain and also be aligning with sustainable development goals.				
<b>SDG Contributions</b>	8 – Decent work and economic growth, Target: 8.8, Indicator: 8.8.2 12 – Responsible consumption and production, Target: 8, Indicator: 12.8.1				
<b>Rationale</b>	More sustainable management of a property brings benefits and commercial advantages to the entire supply chain of which it is part, from production to the final consumer.				

<b>Indicator</b>	F-008 Economic viability				
<b>Description</b>	Access if detailed cost/benefit analysis has been undertaken and if available financial resources available are enough to comply with project's objectives.				
<b>Situation</b>	According to the Feasibility Assessment and to the contract held by the stakeholders, the project is considered financially sustainable in long term. Some specific items, however, present a relative degree of uncertainty for any accurate conclusion on this subject, such as the value of the carbon credit to be traded on the voluntary market. It has investments from the PP and farm owner, as shown in the attachment folder "annex_Project-Activities" and "annex_Sheet Cost and Revenues_J_CRESTANI_1o_MR.xlsx" in folder annex_Project-Indicators-SC-> F-008 Economic viability".				
No analysis carried out or likelihood of project failing to gather enough financial support to meet its objectives.	Analysis carried out and indicates high degree of uncertainty in relation of getting enough financial support to meet its objectives.	Analysis carried out and indicates moderate degree of uncertainty in relation of getting enough financial support to meet its objectives.	<b>Analysis carried out and indicates some degree of uncertainty in relation of getting enough financial support to meet only part of its objectives.</b>	Analysis carried out and indicates high confidence that financial resources are available to meet the main project's objectives.	Analysis carried out and indicates very high confidence that financial resources are available to meet project's objectives.
<b>Score</b>	4				
<b>Prospects</b>	The project aims to be updated to its feasibility as possible, including alternative sources of income and financial management during its development while deemed necessary. As the project develops, it is expected that there will be a greater degree of certainty about the items related to the economic viability of the project, with safe and more reliable projections				
<b>SDG Contributions</b>	8 – Decent work and economic growth, Target: 8.8, Indicator: 8.8.2 12 – Responsible consumption and production, Target: 8, Indicator: 12.8.1				
<b>Rationale</b>	Economic viability is the main component that leads to the project's longevity. Monitoring discussions on the global and local carbon market, as well as political discussions on the topic, fostering partnerships with the carbon sales market and searches for different resource				

alternatives, are practices that help to reduce losses and adapt the financial flow for the project to continue.

## 6.1.4 Natural Resource

<b>Indicator</b>	N-009 Environmental compliance of the farm				
<b>Description</b>	Evaluates structured/certified environmental management initiatives and systems regarding waste, water, air, soil, energy and nature conservation management.				
<b>Situation</b>	In accordance with the documentation presented as annexes of this project, the property has environmental infractions that is solved and finished by the government oversight bodies, and it does not interfere with conservation units or indigenous lands. Furthermore, the current activities on the farm comply with the prevailing environmental regulations for the Mato Grosso State, as stipulated by Mato Grosso State Decree 1,160/2021 that creates the "CARBON NEUTRAL MT" Program and establishes the Action Plan for the Prevention and Control of Deforestation and Forest Fires in the State of Mato Grosso, and also in compliance with the Forest Code, as detailed in Section 1.14 of the PDD v.12.				
The farm does not have environmental management documents. The Proponent does not know how to comply with existing regulation and has no interest in doing so.	The farm has environmental management documents, but there are disorganized and/or missing documents (such as an active RER).	The farm has environmental management documents and its documents are organized, but with some expired documents	<b>In addition to the previous scenario, the farm manages the documents properly and all are active and valid.</b>	In addition to the previous scenario, there is one or more people formally in charge of managing the environmental compliance of the farm.	In addition to the previous scenario, the farm has active/valid certification that attests to good environmental conditions.
<b>Score</b>	4				
<b>Prospects</b>	The project aims to enhance the management of environmental documents related to this indicator, as well as to obtain specific certifications for the farm, attesting to good environmental practices across all its activities.				
<b>SDG Contributions</b>	13 – Climate Action, Target: 13.3, Indicator: 13.3.1 15 – Life on Land, Target: 15.2				
<b>Rationale</b>	Compliance with environmental legislation by this farm contributes by reducing greenhouse gas emissions, promoting carbon sequestration, as well as conserving forests, protecting biodiversity, managing soil sustainably, restoring degraded areas, and using natural resources sustainably.				

<b>Indicator</b>	N-010 Environmental Impacts
<b>Description</b>	Evaluates the relevant environmental impacts occurred due to the project, including additional environmental programs to the stakeholders and broader community. The following major areas are considered: a) Erosion, landslides, silting, soil quality. B) Water Quality c) Floods d) Others to be defined as applicable

<b>Situation</b>	As detailed in the annex's documents 'N-010 Environmental Impacts – “annex_NDVI_RL_2020-2023_analysys_sheet.xlsx” and “annex_vegetation_2020-2023_analysys_sheet.xlsx” revealed a stability in forested areas since the fire event in 2020, reflecting positive impacts on vegetation health. The conservation of native vegetation supports water preservation and ecological functionality, with no significant erosion risks observed due to controlled firebreak practices. Pollutant release is minimal, arising from annual firebreak maintenance using diesel-powered tractors in low populated areas, where rapid dispersion ensures negligible environmental impact. Any significant impacts from these pollutants will be monitored and addressed in future reports under indicator N-010.				
Significant negative environmental impacts. OR There is no knowledge.	Not significant relevance of negative environmental impacts.	There are no significant impacts.	Is expected that the project produces some positive impacts, but there is no evidence if benefits are really happening.	Significant positive impacts, however not measured.	<b>Measured and significant positive impacts.</b>
<b>Score</b>	6				
<b>Prospects</b>	The project is expected to monitor all its environmental impacts in order to understand and measure all the aspects and promote evidences pointing to their significance				
<b>SDG Contributions</b>	13 – Climate Action, Target: 13.3, Indicator: 13.3.1 15 – Life on Land, Target: 15.2				
<b>Rationale</b>	Monitoring environmental impacts on this farm ensures sustainable land management practices that mitigate climate change effects and preserves biodiversity and ecosystems. This involves tracking emissions, maintaining habitat integrity, and promoting conservation efforts.				

<b>Indicator</b>	N-016 Monitoring methods				
<b>Description</b>	Measures the progress of the project’s monitoring methods, which may be: <ul style="list-style-type: none"> <li>- High-resolution GIS capable of detecting degradation;</li> <li>- Use of guards/supervisors;</li> <li>- Presence of guard towers or supervision centre in the project area;</li> <li>- Others (Chain of custody system, independent forest audit).</li> </ul>				
<b>Situation</b>	The project currently employs three primary monitoring methods: near real-time (NRT) remote sensing monitoring - using Global Forest Watch (GFW) and FIRMS NASA platforms; on-site monitoring by farm stakeholder employees, involving patrols and sightings; camera; and periodic drone monitoring, for which a drone has been acquired for the PP projects. Drone evidences are presented in Indicator H-008 and native vegetation cover results are potentially presented in Indicator N-010.				
Currently, the project does not have monitoring methods.	The project has a monitoring method, but it presents significant problems that	The project has a monitoring method in operation.	The project has two monitoring methods in operation.	<b>The project has two monitoring methods, including at least one onsite.</b>	The project has three or more monitoring methods, including at least one onsite, with

	lead to illegal activities within the project area.				excellent results in maintaining native vegetation cover.
<b>Score</b>	5				
<b>Prospects</b>	It is expected that effective vegetation maintenance will be observed through the monitoring activities, and possibly, the implementation of a multiparameter environmental station currently under development to complement the project's monitoring efforts.				
<b>SDG Contributions</b>	13 – Climate Action, Target: 13.3, Indicator: 13.3.1 15 – Life on Land, Target: 15.2				
<b>Rationale</b>	Monitoring environmental impacts on this farm ensures sustainable land management practices that mitigate climate change effects and preserves biodiversity and ecosystems. This involves tracking emissions, maintaining habitat integrity, and promoting conservation efforts.				

## 6.1.5 Biodiversity Resource

<b>Indicator</b>	B-003 Biodiversity monitoring				
<b>Description</b>	Reports, studies, documents, communication with project proponent, among others. Contact must be developed with VERT Ecotech S/A in order to understand the most recent situations and updates about any kind of fauna monitoring in the project areas, also to collect and check each document related to this theme				
<b>Situation</b>	A fauna and flora characterisation were carried out in 2023 to update the biodiversity characterisation carried out for the project design, also including the origin of species (native or exotic) and conservation status (IUCN) for better comprehension of conducts.				
There is no process of identification and monitoring of fauna and flora, nor cataloguing of timber.	There are plans to implement identification and monitoring of fauna and flora.	<b>There is monitoring and identification of fauna OR flora.</b>	There is monitoring and identification of fauna AND flora annually.	In addition to the previous scenario, there is botanical collection of flora and herbarium.	In addition to the previous scenario, there is a catalogue of identified woods (e.g. xiloteca).
<b>Score</b>	3				
<b>Prospects</b>	Biodiversity is expected to gradually reveal itself to be of better quality/quantity with project within years, reaching precise catalogues.				
<b>SDG Contributions</b>	15 – Life on Land, Target: 15.2				
<b>Rationale</b>	The conservation of native vegetation areas, which may lead into to a maintenance or increase in biodiversity, implies into halt of biodiversity loss.				

<b>Indicator</b>	B-004 Biodiversity research					
<b>Description</b>	Evaluates the existence of partnerships with universities and environmental bodies, among others, which contribute to/encourage research on biodiversity in the project area.					
<b>Situation</b>	There are no studies on biodiversity in the project area; however, discussions are underway with potential university partners, specifically from Sinop city, to initiate related research in the area.					
<b>No scientific studies of the project area are available, and the project proponent has no partnerships with researchers/research bodies relating to biodiversity.</b>	Scientific studies on biodiversity are available; however the project proponent has no partnerships with researchers/research bodies relating to biodiversity.	Project proponent has formal partnerships with researchers/research bodies relating to biodiversity; however no studies of the fauna and flora in the project area are currently available.	Project proponent has formal partnerships with researchers/research bodies relating to biodiversity, and studies of fauna OR flora in the project area have been conducted	Project proponent has formal partnerships with researchers/research bodies relating to biodiversity, and studies of fauna AND flora in the project area have been conducted.		As well as the previous scenario, there is constant monitoring in order to update the list of species present in the project area.
<b>Score</b>	1					
<b>Prospects</b>	It is expected that partnerships will be established with research institutions to promote studies in the project area, aiming to specify and update the existing biodiversity inventories.					
<b>SDG Contributions</b>	15 – Life on Land, Target: 15.2					
<b>Rationale</b>	The research involving conservation of native vegetation areas, may lead into to a better comprehension of maintenance or increase in biodiversity, implying potentially into improvements of management and halt of biodiversity loss.					

<b>Indicator</b>	B-006 Flora and Fauna Local Information					
<b>Description</b>	Access the plan or program for monitoring flora and fauna biodiversity, considering its efficiency and the existence of additional control methods (restocking, reintroduction of species, scientific research, etc.).					
<b>Situation</b>	A fauna and flora characterisation were carried out in 2023 to update the biodiversity characterisation carried out for the project design, also including the origin of species (native or exotic) for better comprehension of conducts. The program is considered valuable as it updates the 2023 campaign from validation by incorporating both field data and literature, including new species and more detailed classifications regarding conservation status (IUCN). However, improvements in the research methodology and data publication are anticipated in the coming years, with the use of camera traps and other classification strategies, such as a registration database of each species identification and publication of data.					
No research or absence of	Limited research with major gaps.	Less than satisfactory level	<b>Adequate research or</b>	Well researched or program or	Community and/or regulator	

program or plans or no process to obtain flora and fauna information.	Weak process for identifying basic information required to establish the project (e.g. biomass, carbon stock, tree growth, etc.)	of research. Gaps in program or plans to complete basic information required to establish the project.	<b>program or plans to complete basic information required to establish the project</b>	plans to complete basic information required to establish the project, including comprehensive process for identifying relevant species for conservation.	support in the research program or plan to obtain relevant fauna and flora information for the project.
<b>Score</b>	4				
<b>Prospects</b>	It is expected to promote actions to improve the methods of characterisation and management of fauna and flora, aiming for greater information on relevant species and involving the community.				
<b>SDG Contributions</b>	15 – Life on Land, Target: 15.2				
<b>Rationale</b>	The improvements involving conservation of native relevant species may lead into to a better comprehension of maintenance or increase in biodiversity, implying potentially into improvements of management and halt of biodiversity loss.				

## 6.1.6 Carbon Resource

<b>Indicator</b>	C-003 Correspondence with Sustainable Development Goals				
<b>Description</b>	Evaluates the evolution of the project in relation to the correspondence with the Sustainable Development Goals.				
<b>Situation</b>	According to the project's SDG compliance overview spreadsheet (annex_SDG_Verification2023_Faz_J_Crestani.xlsx), project have met 3 (total of 9) proposed Sustainable Development Goals (SDGs) in accordance with the PDD last version.				
The project does not have any correspondence with the Sustainable Development Goals.	<b>The project has correspondence with at least two Sustainable Development Goals.</b>	The project has correspondence with at least four Sustainable Development Goals.	In addition to the previous scenario, the project proponent offers training courses related to the Sustainable Development Goals to workers and/or stakeholders.	In addition to the previous scenario, at least one target is established for each one of the Sustainable Development Goals related to the project in order to continue improving them.	In addition to the previous scenario, at least one target established by the project proponent is accomplished for each one of the Sustainable Development Goals related to the project.
<b>Score</b>	2				

<b>Prospects</b>	It is expected that the number of SDGs related to the project will gradually increase as socio-environmental actions are implemented and developed, with potential community training activities.
<b>SDG Contributions</b>	8 - Decent Work and Economic Growth, Target: 8.8, Indicator: 8.8.2 13 – Climate action, Target: 13.3, Indicator: 13.3.1 15 - Life on Land, Target: 15.2
<b>Rationale</b>	Promote mechanisms for building capacity for climate change-related planning and effective management in least developed countries, including with a focus on women, youth, local and marginalized communities.

<b>Indicator</b>	C-004 Impact Communication Strategy
<b>Description</b>	Evaluates whether the project has marketing strategies geared towards highlighting socio-environmental practices.
<b>Situation</b>	The project currently only uses social media to promote itself and its potential related socio-environmental actions. However, since this is the first monitoring period of the project and no credits have yet been issued, there are zero or low development of practices, and consequently no improvement in communication or marketing strategies.

The project does not have impact communications strategies.	<b>The project have impact communications strategies using one means of communication. Example: magazine.</b>	The project have impact communications strategies using more than one means of communication. Example: magazine and social media.	The project have impact communications strategies using more than two means of communication. Example: magazine and social media (more than one app).	In addition to the scenario 4, the project has an established impact communication strategy plan.	As well as the previous scenario, the project combines face-to-face events and campaigns with a variety of digital strategies.
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<b>Score</b>	2
<b>Prospects</b>	It is expected to create a strategic communication plan for the dissemination of socio-environmental actions, as project develops, including participation in conferences, lectures, events, etc.
<b>SDG Contributions</b>	12 – Responsible consumption and production, Target: 8, Indicator: 12.8.1
<b>Rationale</b>	Use publicity tools to be an inspiration for the development of other carbon credit projects, as well as being transparent in the development of activities, which helps to foster partnerships, obtain financing and boost the quality of the project.

<b>Indicator</b>	C-008 Project performance
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<b>Description</b>	Evaluates project performance in relation to verified emissions reductions/removals, as compared to expected emission reductions/removals.				
<b>Situation</b>	The carbon credits estimated by the project in PDD last version for 2020, 2021, 2022 and 2023 achieved over 99% of the predicted removals that actually occurred.				
0% of carbon credits predicted for the period were generated.	Between 1% and 25% of carbon credits expected for the period were verified.	Between 26% and 50% of carbon credits expected for the period were verified.	Between 26% and 50% of carbon credits expected for the period were verified.	Between 75% and 95% of carbon credits expected for the period were verified.	<b>More than 95% of carbon credits expected for the period were verified.</b>
<b>Score</b>	6				
<b>Prospects</b>	It is expected that with the development of the project, all anticipated carbon credits will be verified and issued, achieving maximum removal and minimal GHG emissions.				
<b>SDG Contributions</b>	13 – Climate Action, Target: 13.3, Indicator: 13.3.1				
<b>Rationale</b>	GHG removals from this project is fully aligned with SDG 13 goals, by reducing global warming potential in its context by the period the project is running.				

## 6.2 Analysis of Results

### 6.2.1 Current performance

Resource	Critical	Satisfactory	Sustainable	Average Score	Performance
Social	80.0%	20.0%	0.0%	1.8	Critical
Human	100.0%	0.0%	0.0%	1.6	Critical
Financial	33.3%	33.3%	33.3%	3.7	Satisfactory
Natural	0.0%	33.3%	66.7%	5.0	Sustainable
Biodiversity	33.3%	66.7%	0.0%	2.7	Critical
Carbon	66.7%	0.0%	33.3%	3.3	Satisfactory
General	52%	26%	22%	3,01	Satisfactory

The project shows Satisfactory performance, with strengths in the management of natural resources, indicating sustainable practices and a positive impact on the environment to guarantee the forest recovery after burn event. Biodiversity comes along with the management of the natural resources, however, with necessary improvement of researches and survey actions. Financial stability is another positive aspect, suggesting a solid foundation for the project's continuity, due the owner of the land with good financial healthy. However, there are significant concerns regarding social and human resources, where most indicators are at a critical level. The reason is because the surveys not started yet. Additionally, carbon management is also weak for the reason that the project is in its initial process, however, those negative points will not affect the project's reputation in a globally increasing focus on sustainability. The overall performance is rated as Satisfactory, indicating that positive actions were applied. As planned in the monitoring program, the project should focus on strategies that enhance community engagement, improve human resource conditions and development, and adopt more effective carbon management practices. Addressing these challenges could lead to a more balanced, sustainable, and socially responsible project, thus ensuring long-term viability and acceptance by stakeholders.

## 6.2.2 Historical Performance

Social	Point Zero	Point One
	1.80	1.80
Historic Analysis: As the project is just beginning, there are still many points to be improved in communication with stakeholders, which will be resolved through surveys and questionnaires that will be applied to conduct a social diagnosis of the project's stakeholders. Based on the results, actions with a social impact can be implemented in the project.		
Human	Point Zero	Point One
	1.6	1.6
Historic Analysis: As discussed in the previous item, actions to improve human resources will be carried out after the project stakeholders' diagnostic surveys, which will shed light on investments in training and activities to improve the population.		
Financial	Point Zero	Point One
	3.0	3.7
Historic Analysis: Regarding the project's financial situation, since it is still in its early stages and has not received any funding from carbon credits, it has not yet been possible to initiate high-level actions that also relate to the other social, human, natural and carbon items. However, the		

landowner has sufficient resources to continue the project until a return is obtained to maintain the carbon credit project.		
Natural	Point Zero	Point One
	4.3	5.0
Historic Analysis: The project achieved some positive results from the proposed monitoring, sufficiently to demonstrate effectiveness in vegetation preservation and in the proposed methods.		
Biodiversity	Point Zero	Point One
	3.0	2.7
Historic Analysis: Related to the previous item, the issue still requires improvement in research, especially with stakeholders with a high level of education.		
Carbon	Point Zero	Point One
	1.7	3.3
Historic Analysis: There was an important achievement in the expected credit generation.		

### 6.2.3 Performance Hexagon

## SOCIALCARBON Methodology – Fazenda J. Crestani Conservation Project Indicators

### Results

Social Resource		Score	Analysis
1°	S-002 Communication with stakeholders	! 3	SA
2°	S-007 Local indigenous / traditional peoples assistance	✘ 1	C
3°	S-012 Social Impact	✘ 2	C
4°	S-014 Social research	✘ 1	C
5°	S-019 Women Inclusion	✘ 2	C
<b>Average</b>		✘ 1,8	C
Indicators evaluated		5	
C	Critical	4	80,0%
SA	Satisfactory	1	20,0%
SU	Sustainable	0	0,0%

Human Resource		Score	Analysis
6°	H-004 Community education and training	✘ 1	C
7°	H-008 Equipment and infrastructure	✘ 2	C
8°	H-010 Community Health	✘ 2	C
9°	H-011 Worker health and safety	✘ 1	C
10°	H-022 Research incentive	✘ 2	C
<b>Average</b>		✘ 1,6	C
Indicators evaluated		5	
C	Critical	5	100,0%
SA	Satisfactory	0	0,0%
SU	Sustainable	0	0,0%

Financial Resource		Score	Analysis
11°	F-003 Alternative income sources	✗ 2	C
12°	F-006 Competitive Advantage	✓ 5	SU
13°	F-008 Economic viability	⚠ 4	SA
<b>Average</b>		⚠ 3,7	SA
Indicators evaluated		3	
C	Critical	1	33,3%
SA	Satisfactory	1	33,3%
SU	Sustainable	1	33,3%

Natural Resource		Score	Analysis
14°	N-009 Environmental compliance of the farm	⚠ 4	SA
15°	N-010 Environmental Impacts	✓ 6	SU
16°	N-016 Monitoring methods	✓ 5	SU
<b>Average</b>		✓ 5,0	SU
Indicators evaluated		3	
C	Critical	0	0,0%
SA	Satisfactory	1	33,3%
SU	Sustainable	2	66,7%

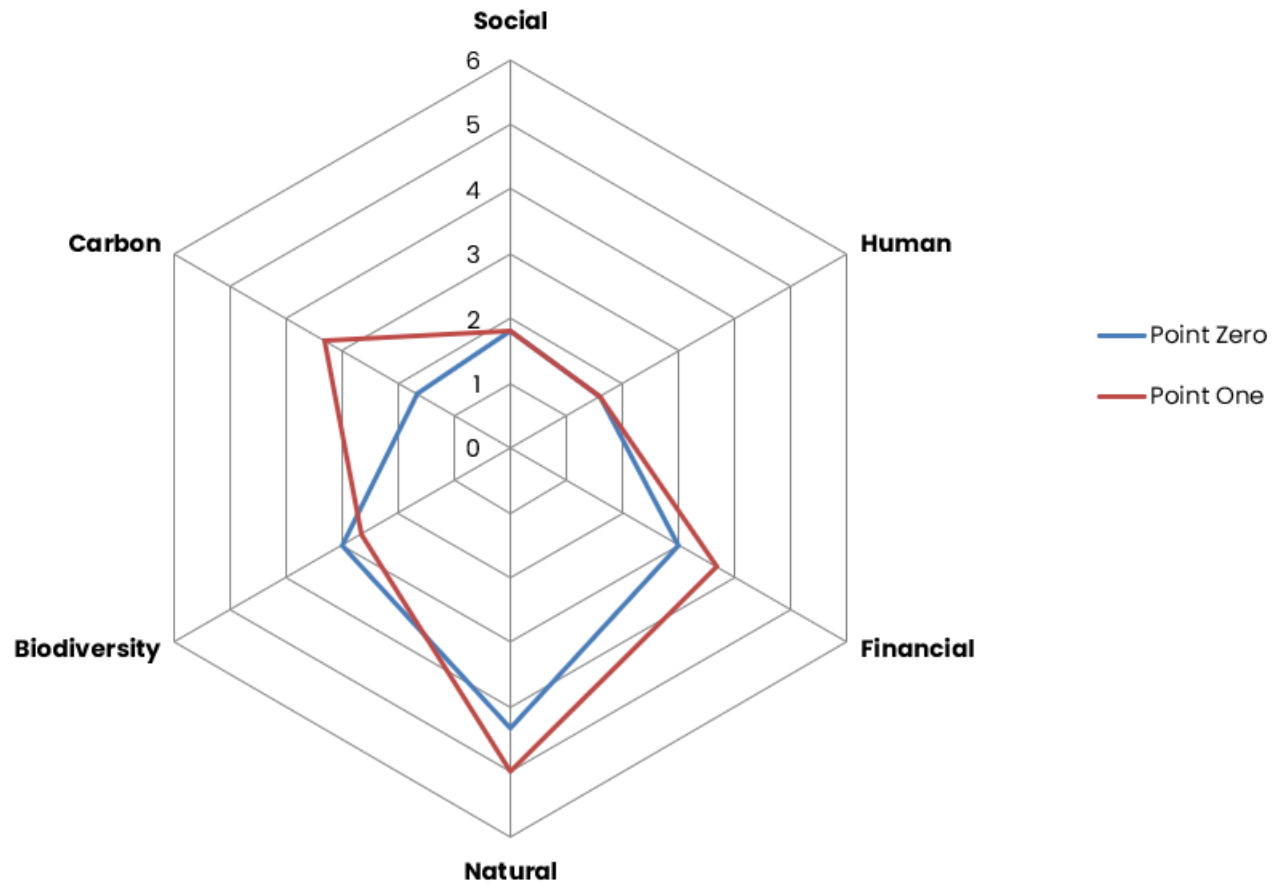
Biodiversity Resource		Score	Analysis
17°	B-003 Biodiversity monitoring	⚠ 3	SA
18°	B-004 Biodiversity research	✗ 1	C
19°	B-006 Flora and Fauna Local Information	⚠ 4	SA
<b>Average</b>		✗ 2,7	C
Indicators evaluated		3	
C	Critical	1	33,3%
SA	Satisfactory	2	66,7%
SU	Sustainable	0	0,0%

Carbon Resource		Score	Analysis
20°	C-003 Correspondence with Sustainable Development Goals	✗ 2	C
21°	C-004 Impact Communication Strategy	✗ 2	C
22°	C-008 Project performance	✓ 6	SU
<b>Average</b>		⚠ 3,3	SA
Indicators evaluated		3	
C	Critical	2	66,7%
SA	Satisfactory	0	0,0%
SU	Sustainable	1	33,3%

**Performance by resource**

Resource	Critical	Satisfactory	Sustainable	Average	Performance
Social	80,0%	20,0%	0,0%	1,8	Critical
Human	100,0%	0,0%	0,0%	1,6	Critical
Financial	33,3%	33,3%	33,3%	3,7	Satisfactory
Natural	0,0%	33,3%	66,7%	5,0	Sustainable
Biodiversity	33,3%	66,7%	0,0%	2,7	Critical
Carbon	66,7%	0,0%	33,3%	3,3	Satisfactory
General	52%	26%	22%	3,01	Satisfactory

Carbon	Point Zero	Point One
<b>Social</b>	1,8	1,8
<b>Human</b>	1,6	1,6
<b>Financial</b>	3,0	3,7
<b>Natural</b>	4,3	5,0
<b>Biodiversity</b>	3,0	2,7
<b>Carbon</b>	1,7	3,3
<b>General</b>	2,6	3,0



## 6.3 Prospect Status

### 6.3.1 Achieved Prospects

Social	
<b>Indicator</b>	S-002 Communication with stakeholders
<b>Prospect</b>	To develop permanent and systematic communication with all those involved in the project, building possible interfaces with similar communication networks so that feedback may be used by other related projects or project proponents
<b>Details</b>	<p>Fulfilment of legal obligations only and obligations of the SOCIALCARBON Standard.</p> <p>Stakeholders were communicated about the project, in order to meet the premises of the SocialCarbon standard.</p>

Financial	
<b>Indicator</b>	F-006 Competitive Advantage
<b>Prospect</b>	It is expected that the project will impact the economic performance of the farm's main product by aligning with sustainable development goals, offering, in a near future instance, products with low carbon emissions throughout their production chain.
<b>Details</b>	<p>The project integrates with the farm's strategic plan to align with global sustainability demands by synchronising agriculture production, its main product, with forest conservation and socio-environmental practices, thereby presenting a potential competitive advantage in the market it operates within.</p> <p>The project didn't have a significant impact on company's economic performance; however, the project makes part of a sustainability strategy of the company.</p>

Financial	
<b>Indicator</b>	F-008 Economic viability

<b>Prospect</b>	The project intends to update its financial plan frequently to ensure greater reliability of financial resources for achieving its main objectives, including alternative income sources and financial management throughout its development and monitoring phases. As the project progresses, a higher degree of certainty is expected regarding items related to its maintenance and monitoring, with secure and more reliable projections for the inclusion or enhancement of project activities.
<b>Details</b>	<p>According to the Feasibility Assessment and to the contract held by the stakeholders, the project is considered financially sustainable in long term. Some specific items, however, present a relative degree of uncertainty for any accurate conclusion on this subject, such as the value of the carbon credit to be traded on the voluntary market.</p> <p>Analysis carried out and indicates some degree of uncertainty in relation of getting enough financial support to meet only part of its objectives.</p>

Natural	
<b>Indicator</b>	N-009 Environmental compliance of the farm
<b>Prospect</b>	The project aims to enhance the management of environmental documents related to this indicator, as well as to obtain specific certifications for the farm, attesting to good environmental practices across all its activities.
<b>Details</b>	<p>In accordance with the documentation presented as annexes of this project, the property has environmental infractions that is solved and finished by the government oversight bodies, and it does not interfere with conservation units or indigenous lands. Furthermore, the current activities on the farm comply with the prevailing environmental regulations for the Mato Grosso State, as stipulated by Mato Grosso State Decree 1,160/2021 that creates the "CARBON NEUTRAL MT" Program and establishes the Action Plan for the Prevention and Control of Deforestation and Forest Fires in the State of Mato Grosso; and also in compliance with the Forest Code, as detailed in Section 1.14.</p> <p>In addition to the previous scenario, the farm manages the documents properly and all are active and valid.</p>

Natural	
<b>Indicator</b>	N-010 Environmental Impacts
<b>Prospect</b>	The project is expected to monitor all its environmental impacts in order to understand and measure all the aspects and promote evidences pointing to their significance
<b>Details</b>	The project's impacts are being extensively monitored with technical backing, as detailed in the attached related documents, ensuring the significance of the measured results.

Natural	
<b>Indicator</b>	N-016 Monitoring methods
<b>Prospect</b>	It is expected that effective vegetation maintenance will be observed through the monitoring activities, and possibly, the implementation of a multiparameter environmental station currently under development to complement the project's monitoring efforts.
<b>Details</b>	<p>The project currently employs three primary monitoring methods: near real-time (NRT) remote sensing monitoring - using GFW and FIRMS NASA and predictive platform Quiron – Mapper and Flareless, described in Section 5.4; on-site monitoring by farm employees, involving patrols and sightings; and periodic drone monitoring, for which a drone has been acquired specifically for the project.</p> <p>The project has two monitoring methods, including at least one onsite.</p>

Biodiversity	
<b>Indicator</b>	B-003 Biodiversity monitoring
<b>Prospect</b>	Biodiversity is expected to gradually reveal itself to be of better quality/quantity with project within years, reaching precise catalogues.
<b>Details</b>	<p>At this point there is basic information related to biodiversity in conservation areas on property. However, there is a voluntary biodiversity monitoring in progress, which may be completed with this project. Proponent has acquired and installed one camera-trap device and data will compose monitoring reports. A flora identification and characterization study were carried out for this project (Section 1.13) and the monitoring reports are to be followed up.</p> <p>There is monitoring and identification of fauna and flora annually.</p>

Biodiversity	
<b>Indicator</b>	B-006 Flora and Fauna Local Information
<b>Prospect</b>	It is expected to promote actions to improve the methods of characterisation and management of fauna and flora, aiming for greater information on relevant species and involving the community.
<b>Details</b>	<p>A basic survey was conducted to support this project, characterising the fauna and flora. Other related monitoring activities are underway for the project's monitoring reports, which are intended to be accessed for evaluation within the scope of this indicator.</p> <p>Adequate research or program or plans to complete basic information required to establish the project</p>

Carbon	
<b>Indicator</b>	C-008 Project performance
<b>Prospect</b>	It is expected that with the development of the project, all anticipated carbon credits will be verified and issued, achieving maximum removal and minimal GHG emissions.
<b>Details</b>	<p>No carbon credits were verified and generated yet.</p> <p>0% of carbon credits predicted for the period were generated.</p>

## 6.3.2 Not Achieved Prospects

Social	
<b>Indicator</b>	S-007 Local indigenous / traditional peoples assistance
<b>Prospect</b>	This project expects to provide any support to sensible indigenous or traditional communities within the Pantanal biome, aiming as topics as possible/applicable along project's lifetime.
<b>Details</b>	<p>According to the “Conservation Units and Indigenous Territories in the region of the property Image”, there are no interference in Indigenous Lands regarding this project. Also, no socioenvironmental investment associated to indigenous or traditional community identified. However, there are traditional families who live and work in the project area and they may be assisted through project activities/actions.</p> <p>There is not yet socio-environmental investment directed to indigenous / traditional communities.</p>

Social	
<b>Indicator</b>	S-012 Social Impact
<b>Prospect</b>	To develop relevant and measurable contribution crossing project and social organisation (IHP), reaching, as applicable, all the major areas within social indicator.
<b>Details</b>	<p>Instituto Homem Pantaneiro develops conservation projects in Mato Grosso state and have agreed in receiving resources from this project to be destined to social actions in the region. Further details and scenarios are to be updated. Other social improvements are expected to be attended, either by project itself or by IHP, reaching the major areas as applicable.</p> <p>Project is expected to deliver some benefits, but there is no evidence that benefits are actually happening.</p>

Social	
<b>Indicator</b>	S-014 Social research
<b>Prospect</b>	It is expected that the partnership with IHP will evolve to the point where the institution will map and research all relevant social aspects involving the project area, aiming to foster other projects and future parallel social actions.
<b>Details</b>	<p>Instituto Homem Pantaneiro has agreed to carry out social research within project region in order to better map out the social activities to be developed in connection with benefit sharing</p> <p>No research was conducted involving communities in the project area.</p>

Social	
<b>Indicator</b>	S-019 Women Inclusion
<b>Prospect</b>	It is expected that the partnership with IHP will evolve to the point where the institution will map and research all relevant social aspects involving the project area, aiming to foster other projects and future parallel social actions.
<b>Details</b>	<p>According to Fazenda J. Crestani's manager and to the visit made to the property by the project proponent, there is no women registered between workers, but there is one directly related to project that works for the neighbour farm). Landowner and project proponent are intended to promote female positions in the project chain, whether related to the project or not, such as hiring women to monitor the areas, biodiversity, training, etc, but also roles as cooking and cleaning, which are more likely to be accepted within a farm, among others, ensuring equal conditions related to men's positions.</p> <p>There are plans to implement actions to promote women inclusion in the community activities.</p>

Human	
<b>Indicator</b>	H-004 Community education and training
<b>Prospect</b>	Increasing employees and community's environmental conscience about conservation of native vegetation areas and related themes
<b>Details</b>	<p>According to Fazenda J. Crestani's manager, there are no training, awareness or environmental education related to conservation of native areas of the property.</p> <p>The project does not offer any education and training activities.</p>

Human	
<b>Indicator</b>	H-008 Equipment and infrastructure
<b>Prospect</b>	Developing household infrastructure as applicable to better serve the communities involved, as well as to improve logistical issues such as roads for transportation and improving the quality of transportation to the nearest town or school.
<b>Details</b>	<p>According to Fazenda J. Crestani's manager, there are no infrastructure and structure inside the project area that is used for the project, despite of that, the neighbour farm, that is used as a headquarter for the carbon project, has investments related to community structures, such as home improvements, and is planning to invest in equipment/vehicles/road maintenance to better serve the project's monitoring needs. An investment was made by proponent in a specific drone to support the project's activities. The future plans are to invest in other more technological equipment, together with training for the community to improve measurements related to the project.</p>

The project proponent has provided the community with equipment relating to monitoring the project area (e.g. camera trap).

Human	
<b>Indicator</b>	H-010 Community Health
<b>Prospect</b>	Raising community awareness of health issues in general, ensuring access to necessary medicines and vaccinations, as well as support for medical referrals when necessary.
<b>Details</b>	<p>According to Fazenda J. Crestani's manager, the property provides medicine if it's necessary for the outsourced workers, operated punctually by the neighbour property manager, but there are no health professionals involved.</p> <p>There are isolated initiatives, which have little impact, in the health area, for example: distribution of informative pamphlets.</p>

Human	
<b>Indicator</b>	H-011 Worker health and safety
<b>Prospect</b>	Regular improvements of employees working equipment, consciousness and conditions are expected to be performed with time, along with specific campaigns, training, or partnerships.
<b>Details</b>	<p>According to Fazenda J. Crestani's manager and to conference of documents, there are no workers under the regulatory "CLT" contract, in accordance with the applicable Brazilian legislation – named "Consolidação das Leis Trabalhistas", Law No. 5,452, 1943. This is the main law that covers and guarantees the rights of workers in this country. No specific actions have been implemented yet by projects context.</p> <p>The project did not carry out actions or activities to promote safety to employees.</p>

Human	
<b>Indicator</b>	H-022 Research incentive
<b>Prospect</b>	It is expected that the research carried out in partnership with the project will potentially be funded by this or future projects in the region, bringing significant developments to the applicable project areas, such as the accuracy of measuring social benefits or ecosystem services in the project areas.
<b>Details</b>	The project proponent will seek to form partnerships with regional Universities such as UNEMAT - Universidade do Estado de Mato Grosso. A project is being submitted for funding by FINEPx , for 1- the development of a project management platform, which is in operation for managing the current project (processes and documents), as well as for commercializing

eventual carbon credits, and 2- the development of an environmental multiparameter station (EMA, in Portuguese, for Estação Multiparamétrica Ambiental) for real-time monitoring of plant health, growth and biodiversity.

The project proponent has no partnership with a research body/researchers/university/ public agency/ institution but has plans to establish partnerships.

## Financial

### Indicator

F-003 Alternative income sources

### Prospect

It is expected that the project will initially find a solid and safe alternative source of income for its community within project areas, with new sources being explored later.

### Details

The property holds an exclusive income source from its only activity, which is agriculture. There is a plan to be developed in order for the community to be able to extract non-timber forest products sustainably, such as seeds for seedlings, which are present within the project area, as detailed in Section 1.13 of the PDD.

The Project does not generate any alternative income sources for the local communities.

## Biodiversity

### Indicator

B-004 Biodiversity research

### Prospect

It is expected that partnerships will be established with research institutions to promote studies in the project area, aiming to specify and update the existing biodiversity inventories.

### Details

There are no studies on biodiversity in the project area; however, discussions are underway with potential university partners, specifically from SINOP city, to initiate related research in the area.

No scientific studies of the project area are available, and the project proponent has no partnerships with researchers/research bodies relating to biodiversity.

## Carbon

### Indicator

C-003 Correspondence with Sustainable Development Goals

### Prospect

It is expected that the number of SDGs related to the project will gradually increase as socio-environmental actions are implemented and developed, with potential community training activities.

### Details

The project has currently been characterised in terms of its alignment with the UN SDGs as described in PDD Section 1.17, directly corresponding to 3 of the 17 goals.

The project has correspondence with at least two Sustainable Development Goals.

Carbon	
<b>Indicator</b>	C-004 Impact Communication Strategy
<b>Prospect</b>	It is expected to create a strategic communication plan for the dissemination of socio-environmental actions, as project develops, including participation in conferences, lectures, events, etc.
<b>Details</b>	<p>The project currently only uses social media to promote itself and its potential related socio-environmental actions.</p> <p>The project has impact communications strategies using one means of communication. Example: magazine.</p>

### 6.3.3 Identified Prospects

Social	
<b>Indicator</b>	S-002 Communication with stakeholders
<b>Responsible</b>	Project proponent – André Luiz Jardini Munhoz
<b>Timescale</b>	December 31th, 2024

Social	
<b>Indicator</b>	S-007 Local indigenous / traditional peoples assistance
<b>Responsible</b>	IHP – Survey team / Project proponent – André Luiz Jardini Munhoz
<b>Timescale</b>	December 31th, 2025

Social	
<b>Indicator</b>	S-012 Social Impact

<b>Responsible</b>	IHP – Survey team / Project proponent – André Luiz Jardini Munhoz
<b>Timescale</b>	December 31th, 2025

<i>Social</i>	
<b>Indicator</b>	S-014 Social research
<b>Responsible</b>	IHP – Survey team / Project proponent – André Luiz Jardini Munhoz
<b>Timescale</b>	December 31th, 2025

<i>Social</i>	
<b>Indicator</b>	S-019 Women Inclusion
<b>Responsible</b>	IHP – Survey team / Project proponent – André Luiz Jardini Munhoz
<b>Timescale</b>	December 31th, 2025

<i>Human</i>	
<b>Indicator</b>	H-004 Community education and training
<b>Responsible</b>	Project proponent – André Luiz Jardini Munhoz
<b>Timescale</b>	December 31th, 2025

<i>Human</i>	
<b>Indicator</b>	H-008 Equipment and infrastructure
<b>Responsible</b>	AUGUSTA AGROPECUARIA LTDA – Fernando José Maggioni / Project proponent – André Luiz Jardini Munhoz
<b>Timescale</b>	December 31th, 2025

<i>Human</i>	
<b>Indicator</b>	H-010 Community Health
<b>Responsible</b>	AUGUSTA AGROPECUARIA LTDA – Fernando José Maggioni / Project proponent – André Luiz Jardim Munhoz
<b>Timescale</b>	December 31th, 2025

<i>Human</i>	
<b>Indicator</b>	H-011 Worker health and safety
<b>Responsible</b>	AUGUSTA AGROPECUARIA LTDA – Fernando José Maggioni / Project proponent – André Luiz Jardim Munhoz
<b>Timescale</b>	December 31th, 2025

<i>Human</i>	
<b>Indicator</b>	H-022 Research incentive
<b>Responsible</b>	Project proponent – André Luiz Jardim Munhoz
<b>Timescale</b>	December 31th, 2024

<i>Financial</i>	
<b>Indicator</b>	F-003 Alternative income sources
<b>Responsible</b>	Project proponent – André Luiz Jardim Munhoz
<b>Timescale</b>	December 31th, 2025

<i>Financial</i>	
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<b>Indicator</b>	F-006 Competitive Advantage
<b>Responsible</b>	AUGUSTA AGROPECUARIA LTDA – Fernando José Maggioni / Project proponent – André Luiz Jardini Munhoz
<b>Timescale</b>	December 31th, 2025

<b>Financial</b>	
<b>Indicator</b>	F-008 Economic viability
<b>Responsible</b>	Project proponent – André Luiz Jardini Munhoz
<b>Timescale</b>	December 31th, 2025

<b>Natural</b>	
<b>Indicator</b>	N-009 Environmental compliance of the farm
<b>Responsible</b>	AUGUSTA AGROPECUARIA LTDA – Fernando José Maggioni / Project proponent – André Luiz Jardini Munhoz
<b>Timescale</b>	December 31th, 2024

<b>Natural</b>	
<b>Indicator</b>	N-010 Environmental Impacts
<b>Responsible</b>	Project proponent – André Luiz Jardini Munhoz
<b>Timescale</b>	December 31th, 2024

<b>Natural</b>	
<b>Indicator</b>	N-016 Monitoring methods
<b>Responsible</b>	Project proponent – André Luiz Jardini Munhoz

<b>Timescale</b>	December 31th, 2024
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<i>Biodiversity</i>	
<b>Indicator</b>	B-003 Biodiversity monitoring
<b>Responsible</b>	Project proponent – André Luiz Jardini Munhoz
<b>Timescale</b>	December 31th, 2024

<i>Biodiversity</i>	
<b>Indicator</b>	B-004 Biodiversity research
<b>Responsible</b>	Project proponent – André Luiz Jardini Munhoz
<b>Timescale</b>	December 31th, 2025

<i>Biodiversity</i>	
<b>Indicator</b>	B-006 Flora and Fauna Local Information
<b>Responsible</b>	Project proponent – André Luiz Jardini Munhoz
<b>Timescale</b>	December 31th, 2025

<i>Carbon</i>	
<b>Indicator</b>	C-003 Correspondence with Sustainable Development Goals
<b>Responsible</b>	Project proponent – André Luiz Jardini Munhoz
<b>Timescale</b>	December 31th, 2025

<i>Carbon</i>	
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<b>Indicator</b>	C-004 Impact Communication Strategy
<b>Responsible</b>	Project proponent – André Luiz Jardini Munhoz
<b>Timescale</b>	December 31th, 2025

<i>Carbon</i>	
<b>Indicator</b>	C-008 Project performance
<b>Responsible</b>	Project proponent – André Luiz Jardini Munhoz
<b>Timescale</b>	December 31th, 2025

# Appendix 1: Non-Permanence Risk Report

## 1. Internal Risk

Project Management		
Risk Factor	Risk Factor and/or Mitigation Description	Risk Rating
a)	<p>Species planted (where applicable) associated with more than 25% of the stocks on which GHG credits have previously been issued are not native or proven to be adapted to the same or similar agro-ecological zone(s) in which the project is located.</p> <p><b>Not applicable</b></p>	0
b)	<p>Ongoing enforcement to prevent encroachment by outside actors is required to protect more than 50% of stocks on which GHG credits have previously been issued.</p> <p><b>Since the area is relatively large and the logistics of monitoring its fences is not simple, there is a risk factor for external invasions.</b></p>	2
c)	<p>Management team does not include individuals with significant experience in all skills necessary to successfully undertake all project activities (ie, any area of required experience is not covered by at least one individual with at least 5 years experience in the area).</p> <p><b>The management team has extremely qualified and experienced employees, with more than 20 years of experience in the Amazon biome.</b></p>	0
d)	<p>Management team does not maintain a presence in the country or is located more than a day of travel from the project site, considering all parcels or polygons in the project area.</p> <p><b>The management team remains on site and/or in the closest municipality to the property, with direct access to it.</b></p>	0

e)	<b>Mitigation:</b> Management team includes individuals with significant experience Management team includes individuals with significant experience in AFOLU project design and implementation, carbon accounting and reporting (eg, individuals who have successfully managed projects through validation, verification and issuance of GHG credits) under the SOCIALCARBON Program or other approved GHG programs.	0
f)	<b>Mitigation:</b> Adaptive management plan in place  <b>There is a management plan in progress, essentially depending on the project in question. It aims to promote employees to specific functions within the property, related to the project, as well as carry out specific training</b>	-2
<b>Total Project Management (PM) [as applicable, (a + b + c + d + e + f)]</b>		<b>0</b>

Financial Viability		
Risk Factor	Risk Factor and/or Mitigation Description	Risk Rating
Q	How many years does it take for the cumulative cashflow to break even?	d)
Q	What percentage of funding is needed to cover the total cash out before the project breaks even has been secured?	i)
a)	Project cash flow breakeven point is greater than 10 years from the current risk assessment	0
b)	Project cash flow breakeven point is between 7 and up to less than 10 years from the current risk assessment	0
c)	Project cash flow breakeven point between 4 and up to less than 7 years from the current risk assessment	0
d)	Project cash flow breakeven point is less than 4 years from the current risk assessment	0
e)	Project has secured less than 15% of funding needed to cover the total cash out before the project reaches breakeven	0
f)	Project has secured 15% to less than 40% of funding needed to cover the total cash out required before the project reaches breakeven	0
g)	Project has secured 40% to less than 80% of funding needed to cover the total cash out required before the project reaches breakeven	0
h)	Project has secured 80% or more of funding needed to cover the total cash out before the project reaches breakeven	0
i)	<b>Mitigation:</b> Project has available as callable financial resources at least 50% of total cash out before project reaches breakeven	-2
<b>Total Financial Viability [(a, b, c or d) + (e, f, g or h) + i]</b>		<b>0</b>

Opportunity Cost		
Risk Factor	Risk Factor and/or Mitigation Description	Risk Rating
Q	What is the NPV from the most profitable alternative land use activity compared to NPV of project activity?	b)
a)	NPV from the most profitable alternative land use activity is expected to be at least 100% more than that associated with project activities; or where baseline activities are subsistence-driven, net positive community impacts are not demonstrated	0
b)	NPV from the most profitable alternative land use activity is expected to be between 50% and up to 100% more than from project activities  <b>As described in financial analysis in PDD v.12 - Section 3.6 – Additionality</b>	6
c)	NPV from the most profitable alternative land use activity is expected to be between 20% and up to 50% more than from project activities	0
d)	NPV from the most profitable alternative land use activity is expected to be between 20% more than and up to 20% less than from project activities; or where baseline activities are subsistence-driven, net positive community impacts are demonstrated	0
e)	NPV from project activities is expected to be between 20% and up to 50% more profitable than the most profitable alternative land use activity	0
f)	NPV from project activities is expected to be at least 50% more profitable than the most profitable alternative land use activity	0
g)	<b>Mitigation:</b> Project proponent is a non-profit organization  <b>Not applicable</b>	0
h)	<b>Mitigation:</b> Project is protected by legally binding commitment to continue management practices that protect the credited carbon stocks over the length of the project crediting period (see project longevity)	-2
i)	<b>Mitigation:</b> Project is protected by legally binding commitment to continue management practices that protect the credited carbon stocks over at least 100 years (see project longevity)	0
<b>Total Opportunity Cost [(a, b, c, d, e or f) + (g + h or i)]</b>		<b>4</b>

Project Longevity		
Risk Factor	Risk Factor and/or Mitigation Description	Risk Rating

Q	Does the project have a legally binding agreement that covers at least a 100 year period from the project start date?	No
Q	What is the project Longevity in years?	100
Q	Legal Agreement or requirement to continue management practice?	Yes
a)	Without legal agreement or requirement to continue the management practice	0
b)	With legal agreement or requirement to continue the management practice  <b>The project has a formal contract between parties for at least 10 years, as described in PDD v.12 – Appendix 2 - Formal Contract Between Parties and document First_Amendment_Agreement_Faz_J_Crestani.</b>	-40
<b>Total Project Longevity</b>		<b>0</b>
<b>Total Internal Risk (PM + FV + OC + PL)</b>		<b>4</b>

## 2. External Risks

Land Tenure and Resource Access/Impacts		
Risk Factor	Risk Factor and/or Mitigation Description	Risk Rating
Q	Are the ownership and resource access/use rights held by the same or different entities?	Same
a)	Ownership and resource access/use rights are held by same entity(s) <b>Exactly as disposed: ownership and resource access/use rights are held by same entity(s)</b>	0
b)	Ownership and resource access/use rights are held by different entity(s) (eg, land is government owned and the project proponent holds a lease or concession) <b>Not applicable</b>	0
c)	In more than 5% of the project area, there exist disputes over land tenure or ownership <b>Not applicable</b>	0
d)	There exist disputes over access/use rights (or overlapping rights) <b>Not applicable</b>	0
e)	WRC projects unable to demonstrate that potential upstream and sea impacts that could undermine issued credits in the next 10 years are irrelevant or expected to be insignificant, or that there is a plan in place for effectively mitigating such impacts <b>Not applicable</b>	0
f)	<b>Mitigation:</b> Project area is protected by legally binding commitment (eg, a conservation easement or protected area) to continue management practices that protect carbon stocks over the length of the project crediting period <b>Brazilian's Federal Law No 12.651/2012, named as the "Forest Code"</b> <b>(Código Florestal in Portuguese) establishes the Legal Reserve (Reserva Legal in Portuguese), which states that rural properties must allocate a minimum percentage (80% in Amazon biome) of their total area for this purpose, which includes the project area.</b>	-2
g)	<b>Mitigation:</b> Where disputes over land tenure, ownership or access/use rights exist, documented evidence is provided that projects have implemented activities to resolve the disputes or clarify overlapping claims	0

	<b>Not applicable</b>	
<b>Total Land Tenure [(a or b) + c + d + e + f +g]</b>		<b>0</b>

<b>Community Engagement</b>		
<b>Risk Factor</b>	<b>Risk Factor and/or Mitigation Description</b>	<b>Risk Rating</b>
a)	Less than 50 percent of households living within the project area who are reliant on the project area, have been consulted  <b>Not applicable</b>	0
b)	Less than 20 percent of households living within 20 km of the project boundary outside the project area, and who are reliant on the project area, have been consulted  <b>Not applicable</b>	5
c)	<b>Mitigation:</b> The project generates net positive impacts on the social and economic wellbeing of the local communities who derive livelihoods from the project area  <b>This happens due to several reasons explained in PDD v.12 – Section 3.6 – Additionality</b>	-5
<b>Total Community Engagement [a + b + c]</b>		<b>0</b>

Political Risk		
Risk Factor	Risk Factor and/or Mitigation Description	Risk Rating
Q	What is the country's calculated Governance score?	-0.55*
a)	Governance score of less than -0.79	0
b)	Governance score of -0.79 to less than -0.32	4
c)	Governance score of -0.32 to less than 0.19	0
d)	Governance score of 0.19 to less than 0.82	0
e)	Governance score of 0.82 or higher	
f)	<p><b>Mitigation:</b> Country implementing REDD+ Readiness or other activities such as:</p> <ul style="list-style-type: none"> <li>a) The country is receiving REDD+ Readiness funding from the FCPF, UN-REDD or other bilateral or multilateral donors</li> <li>b) The country is participating in the CCBA/CARE REDD+ Social and Environmental Standards Initiative</li> <li>c) The jurisdiction in which the project is located is participating in the Governors' Climate and Forest Taskforce</li> <li>d) The country has an established national FSC or PEFC standards body</li> <li>e) The country has an established DNA under the CDM and has at least one registered CDM A/R project</li> </ul> <p><b>Brazil participates in programs and incentives related to REDD+ (Reduction of Emissions from Deforestation and Forest Degradation). The country has been a global leader in implementing REDD+. In 2010, Brazil launched the Program for the Prevention and Control of Deforestation in the Legal Amazon (PPCDAM) as part of its contribution to reducing greenhouse gas emissions.</b></p> <p><b>Brazil also participates in other REDD+-related programs and incentives, including the International Rainforest Protection Initiative (ITFI), the Alliance of Tropical Forest Countries (ATCF), the Forest Investment Program (FIP) and the in Sustainable Energy (ESI).</b></p>	-2
<b>Total Political [(a, b, c, d or e) + f]</b>		<b>2</b>

\* *Brazil: Government effectiveness – The Global Economy.*

[https://www.theglobaleconomy.com/Brazil/wb\\_government\\_effectiveness/#:~:text=Government%20effectiveness%20index%20\(%2D2.5%20weak%3B%202.5%20strong\)&text=The%20average%20value%20for%20Brazil,192%20countries%20is%20%2D0.02%20points](https://www.theglobaleconomy.com/Brazil/wb_government_effectiveness/#:~:text=Government%20effectiveness%20index%20(%2D2.5%20weak%3B%202.5%20strong)&text=The%20average%20value%20for%20Brazil,192%20countries%20is%20%2D0.02%20points)

<b>Total External Risk (LT + CE +PC)</b>	<b>2</b>
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## 3. Natural Risks

Risk Category Factors		According to Natural Risk Score Tab in SOCIALCARBON Risk Report Calculation Tool v1.0		Risk Rating
a)	Fire (F)	20	0.50	10.00
b)	Pest and Disease Outbreaks (PD)	0	1.00	0.00
c)	Extreme Weather (W)	5	1.00	5.00
d)	Geological Risk (G)	0	1.00	0.00
e)	Other natural risk (ON1) - Cattle invasion	2	0.25	0.50
f)	Other natural risk (ON2)	0	1.00	0.00
g)	Other natural risk (ON3)	0	1.00	0.00
<b>Total Natural Risk [F + PD + W + G + ON]</b>				<b>16</b>

Risk Category Factors – a) Fire (F)	
Significance	Major (25% to less than 50% loss of carbon stocks)
Likelihood	Less than every 10 years
Score (LS)	20
Mitigation	0.50  Prevention measures applicable to the risk factor are implemented -Emergency Attendance Plan (EAP – PAE, in Portuguese) -Fencing; -Firebreaks.

Risk Category Factors – Extreme Weather (W)	
Significance	Minor (5% to less than 25% loss of carbon stocks)
Likelihood	Less than every 10 years
Score (LS)	5
Mitigation	1.00  None of the above  Due to climate changes

Other natural risk (ON1) - Cattle invasion	
Significance	Insignificant (less than 5% loss of carbon stocks) or transient (full recovery of lost carbon stocks expected within 10 years of any event)
Likelihood	Less than every 10 years
Score (LS)	2
Mitigation	0.25  Prevention measures applicable to the risk factor are implemented  -Fencing

## 4. Overall Non-Permanence Risk Rating and Buffer Determination

### STEP 2: Overall Non-Permanence Risk Rating

Risk Category		Rating
a)	Internal risk	4
b)	External risk	2
c)	Natural Risk	16
<b>Overall risk rating (a + b + c)</b>		<b>22</b>
Note: Overall risk rating shall be rounded up to the nearest whole percentage		
The minimum risk rating shall be 10, regardless of the risk rating calculated		
If the overall risk rating is over 60 then the project fails the entire risk analysis		
<b>Total Risk Assessment</b>		<b>22%</b>
Net change in the project's carbon stocks		167119
<b>Total number of buffer credits to be deducted from the issuance</b>		<b>36766</b>

## Appendix 2: Sustainable Development Goals (SDG)

SDG No.	SDG	Targets and Indicators No.	Targets and Indicators	Project Contribution	Monitoring	Reporting	Achievement	Comments	Rationale
1	No Poverty	Target 1.1	<b>Target:</b> By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than \$1.25 a day	The project expects will generating alternative income through activities such as seeds or nuts collecting, along with socioenvironmental actions in local community. To enhance its impact, the project plans to implement education and training initiatives aimed at building skills and competencies for employment within local community, if applicable.	Monitor the development of alternative income sources through proper economic indicator, along with human indicator related to community training and education.	Report through indicators the information about development of a local alternative income source and the metrics of training and education for local community.	No	No resources were generated yet as this is the first verification of Fazenda J. Crestani's project with mainly retroactive GHG removals and no significant sustainable aspects development	The IHP stakeholder will develop social diagnostic actions and with this we intend that 100% of the information will be obtained and used to direct alternative income sources actions in order to reduce in 25% possible inequalities for 100% of the employees of the Fazenda Palmasola Stakeholder.
		Indicator 1.1.1	<b>Indicator:</b> Proportion of the population living below the international poverty line by sex, age, employment status and geographical location (urban/rural)						
3	Good health and well-being	Target: 3.4	<b>Target:</b> By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being.	Part of the resources allocated to the social indicators will be direct to health care initiatives and healthy education	Monitor the health quality improvement of the community/employees involved in project area	Report improvements in health of the local population through social indicator survey.	No	No improvements in health of the local population were developed as this is the first verification of Fazenda J. Crestani and no resources were yet generated	The IHP stakeholder will develop social diagnostic actions and with this we intend that 100% of the information will be obtained and used to direct social and economic actions in order to maintain the guarantee of a safe workplace in accordance with
		Indicator: 3.4.1	<b>Indicator:</b> Mortality rate attributed to cardiovascular disease, cancer, diabetes or chronic respiratory disease						

									labor legislation. Fazenda Palmasola, a Stakeholder of the project, maintains signs on its facilities with information on occupational health and safety, as demonstrated in images in the appendix "H-008 Equipment and infrastructure".
8	Decent Work and Economic Growth	<p><b>Target: 8.8</b></p>	<p><b>Target:</b> Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment.</p>	<p>Create sustainable and fair jobs and activities related to the carbon credit project with potential focus on migrants and women equality, complying with all the safe and secure working rules and legislation.</p>	<p>Worker's health and safety conditions and women inclusion.</p>	<p>Report the number of jobs created and the quality of working conditions through social and economic indicators survey.</p>	Yes	<p>Specific jobs were created to meet the project's demands, following a model of environmental analysis and consultancy, involving activities such as monitoring, reporting, auditing, and the implementation of project practices.</p>	<p>A drone company was hired to monitor the project area when the PP drone was unavailable, as per document "Drone.pdf" (annex_Product-Invoice-20-23). At least one training session on occupational health and safety is planned per year. It is expected that the company's profit and visibility will increase by 50%, as well as the creation of new</p>

									jobs (one specifically for the project area monitoring) and improvements for the employees of Stakeholder Fazenda Palmasola. It will be monitored by the KPI "Generation of new jobs".
9	Industry, Innovation and Infrastructure	Target: 9.5	<p><b>Target:</b> Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending</p>	Invest in research and development of technologies (environmental multiparametric station – EMA) to improve the efficiency and effectiveness of monitoring the carbon credit project.	Monitor investments in Research and Development (R&D) and technological advancements achieved, along with partnership with universities for development of specific studies within project area.	Report investments in R&D and the results obtained with the new technologies implemented through scientific communication reports, monitored by human and social indicators.	No	A partnership is needed to be developed with regional Universities for research and development in the project's areas, through the use of an innovative equipment for measuring environmental parameters.	Obtain investment in development of the environmental multiparametric station – EMA to improve the efficiency and effectiveness of monitoring the carbon credit project. The prospect is that a new partnership will be established to carry out biodiversity research in the project area.
		Indicator: 9.5.2	<p><b>Indicator:</b> Researchers (in full-time equivalent) per million inhabitants</p>						

10	Reduce inequalities	<b>Target: 10.2</b>	<b>Target:</b> By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status.	Promote social and economic inclusion of vulnerable communities through job creation and community development programs associated with the project.	Monitor the social and human indicators related to women inclusion and community education and training.	Report inclusion initiatives and their social and economic impacts on involved communities through surveys on social and human indicators.	No	Potential non-timber products are yet being studied for exploration in the project areas in collaboration with the involved community.	The IHP stakeholder will develop social diagnostic actions and with this we intend that 100% of the information will be obtained and used to direct social and economic actions in order to reduce possible inequalities for 100% of the employees of the Fazenda Palmasola Stakeholder, carry out at least one health and education/training action, generate at least one direct job related to the project area, actions exclusively for women and children. The achievement of the objective will be measured through the KPI "Percentage of actions objectives achievement" and by the KPI
		<b>Indicator: 10.2.1</b>	<b>Indicator:</b> Proportion of people living below 50 per cent of median income, by sex, age and persons with disabilities						

									"Generation of new jobs".
11	Sustainable Cities and Communities	<b>Target: 11.1</b> Target: By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums.	<b>Indicator: 11.1.1</b> Indicator: Proportion of urban population living in slums, informal settlements or inadequate housing	Despite the Indicator is related to urban areas, the project can be fitted into the Communities category. Also, 10% of the resources from the carbon credits project will go to social projects related to Instituto Homem Pantaneiro, that works with urban and rural population, depending on the site of the actions proposed. In addition, many workers lives in cities nearby the farm and probably in a near future, with the urbanization of the territory by roads paving, new communities will raise near the project site . The issue explained, the project will	Monitor the quantity and quality of infrastructure development and improvements in the quality of life of beneficiary communities, along with social actions promoted by partners.	Report infrastructure improvements and the quality-of-life enhancement provided by the project through social indicator surveys.	No	No improvements in infrastructure and the quality-of-life enhancement provided by the project were developed as this is the first verification of Fazenda J. Crestani and no resources were yet generated. Main activities are still under planning by Instituto Homem Pantaneiro (IHP).	10% of the resources from the carbon credits project will go to social projects related to IHP, that works with urban and rural population, depending on the site of the actions proposed. In addition, many workers live in cities nearby the farm and probably in a near future, with the urbanization of the territory by roads paving, new communities will raise near the project site. The issue explained, the project will assign part of the resources generated by carbon credits to community

				assign part of the resources generated by carbon credits to community development programs, education, and local infrastructure.				development programs, education, and local infrastructure.
12	Responsible consumption and production	Target: 8	<b>Target:</b> By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature	Promote awareness about sustainable development and lifestyles in harmony with nature with the stakeholders.	Monitor environmental education and awareness activities carried out by the project.	Report environmental education initiatives and the levels of awareness achieved by stakeholders promoted activities.	No	No carbon credits were yet generated as this is the first verification of Fazenda J. Crestani's project. No specific initiatives were implemented yet as this is the first verification of Fazenda J. Crestani's project with mainly retroactive GHG removals and no significant sustainable aspects development, although stakeholders were involved and consulted.
		Indicator: 12.8.1	<b>Indicator:</b> Extent to which (i) global citizenship education and (ii) education for sustainable development are mainstreamed in (a) national education policies; (b) curricula; (c) teacher education; and (d) student assessment.					

13	Climate Action	<b>Target: 13.3</b> Target: Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning;	<b>Indicator: 13.3.1</b> Indicator: Extent to which (i) global citizenship education and (ii) education for sustainable development are mainstreamed in (a) national education policies; (b) curricula; (c) teacher education; and (d) student assessment	Conduct education and awareness programs on climate change mitigation and adaptation with the stakeholders.	Monitor the effectiveness of education and awareness programs on climate change.	Report education and awareness initiatives and the results achieved.	Yes  No	Results from forest conservation and restoration are observed in this project, mainly as indicator N-010 details.	We intend to strengthen relations with stakeholders through new rounds of meetings for those whose agendas have not yet been aligned, especially with Educational and Research Institutions.
		No specific initiatives were implemented yet as this is the first verification of Fazenda J. Crestani's project with mainly retroactive GHG removals and no significant sustainable aspects development, although stakeholders were involved and consulted.						PP will carry out at least one annual training on equipment handling and environmental education. Hold at least one lecture/training session on environmental education in the project region or at Universities. Include at least one on-site vegetation sampling method to monitor potential environmental impacts in the project area. Improve monitoring levels by introducing at least one method (remote	

									or otherwise) in order to maintain the integrity of the project area, carbon capture and reduction of environmental impacts.
15	Life on Land	Target: 15.2	<p><b>Target:</b> By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally.</p>	<p>Implement sustainable forest management practices such as isolation, conservation and prevention of incidents for Legal Reserve (LR) areas, demanded by project</p>	<p>Monitor and improve practices related to forest conservation and combat of fire and deforestation.</p>	<p>Report sustainable management practices and results obtained in terms of conservation of forest areas, through projects main achievements and related indicators.</p>	Yes	<p>Results from forest conservation and restoration are observed in this project, mainly as indicator N-010 and B-003 detail.</p> <p>Project activities details main action and results from forest conservation and combat of fire. Results from forest conservation and restoration are observed in this project, mainly as indicator N-010 details.</p> <p>Project</p>	<p>Rounds in the project area are carried out every 15 days. It was recorded at least 12 mammals in the project area.</p> <p>Annex “annex_Biodiversity-Faz_J_Crestani_2023.xlsx”. At least 3 big cats were observed in the project area, demonstrating that the proposed SDG is being met.</p> <p>Include at least one on-site vegetation sampling method to obtain more flora</p>

								activities details main action and results from for- est conserva- tion and conse- quently protect- ing habitats and endangered species. Re- sults from for- est conserva- tion and resto- ration are ob- served in this project, mainly as indicator N- 010 details, and also biodiver- sity resource in- dicators B-003, B-004 and B- 006.	information. Introduce at least one more method (remote or not) of biodi- versity monitor- ing in the project area.
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