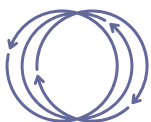


---

# Voluntary Monitoring Protocol for Cattle Suppliers in the Cerrado

Version 1.1 for testing – September, 2021

---



GOOD  
GROWTH  
PARTNERSHIP



proforest

Imaflora®













# Summary

## Voluntary Monitoring Protocol for Cattle Suppliers in the Cerrado

Version 1.1 for testing – September, 2021

---

<b>01</b>	<b>Introduction</b>	03
	1.1 - Context	03
	1.2 - Key steps for the development of the Protocol	05
	1.2.1 - Preliminary studies	05
	1.2.2 - Technical analysis of potential impact	05
	1.2.3 - Consultation process	05
<b>02</b>	<b>Summary</b>	07
<b>03</b>	<b>Monitoring criteria per theme</b>	09
	3.1 - Illegal Conversion of Native Vegetation	09
	3.2 - Deforestation and Conversion free	11
	3.3 - Indigenous Lands (IL)	13
	3.4 - Quilomba land (QL)	15
	3.5 - Protected Areas	17
	3.6 - Environmental embargoes - Vector (IBAMA, ICMBio and Stage agencies)	19
	3.7 – Changes in CAR boundary limits	21
	3.8 – Environmental embargoes - Public list (IBAMA, ICMBio & State agencies)	23
	3.9 – Slave Labor	25
	3.10 – Rural Environmental Registration (CAR)	26
	3.11 – Animal Transit Guide (GTA)	27
	3.12 – Productivity	28
<b>04</b>	<b>Additional Criteria</b>	31
<b>05</b>	<b>Monitoring of indirect cattle suppliers</b>	34
	<b>References</b>	35

# 01 Introduction

## 1.1 – Context

The Brazilian Cerrado is the world’s most biodiverse savannah<sup>1</sup> and as such, recognized as a global biodiversity hotspot<sup>2</sup>. In addition, the biome plays an important role in providing a range of ecosystem services, such as supporting Brazil’s water cycle – where eight of the country’s twelve river basins are located<sup>3</sup> (Figure 1). However, over the last four decades the biome has gone through tremendous transformations, driven by rapid pasture and large-scale agriculture expansion<sup>4</sup>. Cattle ranching activities in particular have been associated with native vegetation conversion in the region, as most of the cleared areas become pasture<sup>5</sup>. Other relevant issues associated with cattle ranching activities in Brazil, are social issues such as land conflicts<sup>6</sup> and forced labor – according to data from the federal government systematized by the Comissão Pastoral da Terra (CPT), more than half of slave labor cases flagged in Brazil from 1995 to 2020 occurred in activities related to cattle ranching<sup>7</sup>.

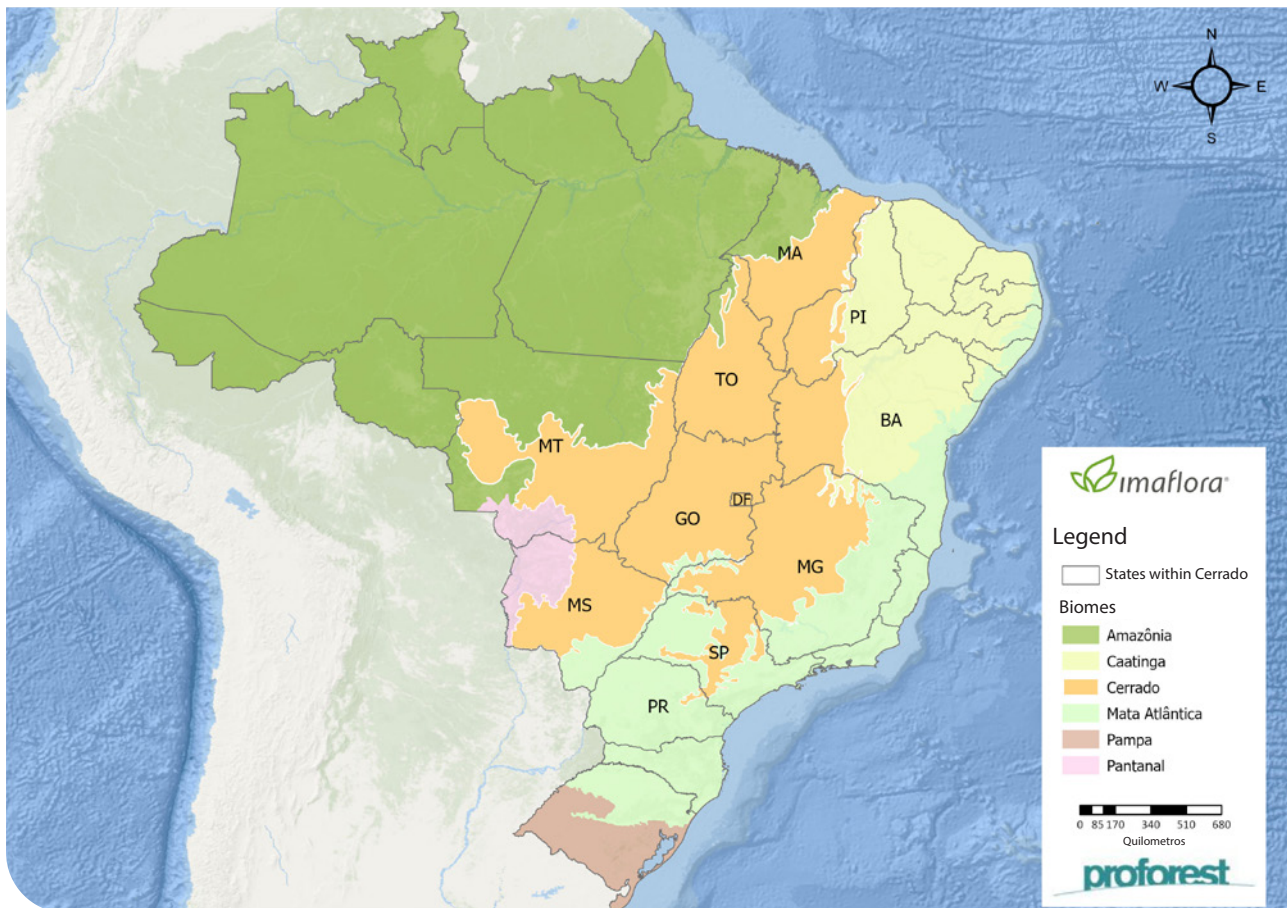


Figure 1 – Map of Brazilian biomes highlighting the states within the Cerrado biome, which are the scope of this draft of a voluntary monitoring protocol for cattle suppliers in the Cerrado.

Within this context, several downstream companies that source cattle products from Brazil, and more specifically from the Cerrado, have started to design responsible sourcing strategies to avoid purchases linked with social and environmental issues in the region. Despite downstream companies making pledges to conserve the biome, there is a lack of alignment on how to operationalize this in the beef sector. There is not, so far, a protocol for slaughterhouses to analyse cattle purchases in the Cerrado, as there is for the Amazon<sup>8</sup>.

Building from the experience of Imaflora working with the 3 largest meatpackers and the 3 largest retailers in Brazil in the harmonization of the Amazon Protocol, and on Proforest's experience designing and helping implement beef sourcing policies in the Cerrado, Proforest and Imaflora have partnered together to organise the basis for the construction of a voluntary monitoring protocol for cattle suppliers in the Cerrado Biome, with a similar objective of facilitating the implementation of best practices for monitoring direct cattle suppliers in the biome. This project has been developed as part of the Good Growth Partnership's Responsible Demand Project, thanks to financial support from the **Global Environment Facility (GEF)** through **World Wildlife Fund (WWF)**.

While the Amazon protocol was developed in partnership with the Public Prosecutor's office and designed as a guideline for the implementation of the Terms of Adjustment of Conduct and the Beef Public Commitment, the Cerrado Protocol was designed as a voluntary monitoring protocol for cattle suppliers in the Cerrado. As such, the expectation to whom and how this voluntary protocol could be applied is as follows:

- **Meatpackers:** They could apply to purchase cattle from their direct cattle suppliers;
- **Direct cattle suppliers:** It could be used to provide the necessary information on the meatpackers for compliance analysis and/or unlocking and/or reintegration;
- **Downstream buyers:** It could be used to encourage the application of the protocol with their suppliers of cattle products (meatpackers);
- **Investors:** It could be used as a minimum requirement to be monitored under ESG agendas for new investments to companies linked with cattle supply chains in Brazil.



Figure 2 – Cerrado Native Vegetation at Chapada dos Veadeiros National Park. Photographer: Pedro Santos.

## 1.2 – Key steps for the development of the Protocol

The following steps were undertaken to prepare this document:

### 1.2.1 – Preliminary studies

- A** Aligned the key features of zero conversion commitments in the Cerrado, through a desk-based study. Three platforms, five commitments, and two frameworks were analysed aiming to identify what is being implemented in the biome by slaughterhouses, retailers, and food industry, that could endorse the construction of this Protocol.
- B** Conducted a benchmarking exercise of the main criteria and parameters cited by companies and civil society organizations to tackle conversion of native vegetation in the Cerrado or other Brazilian Biomes in their cattle supply chain agendas – the key results from this preliminary study (topics A and B) were detailed in the annex of this publication ([in a separate document](#)).
- C** Mapped the resources available for the Cerrado biome, within the context of developing a protocol for monitoring cattle purchases against social and environmental criteria.

### 1.2.2 – Technical analysis of potential impact

In order to understand the potential impacts of the protocol implementation, a technical analysis was conducted to observe a simulation of the application of some of the main criteria and parameters of the protocol in the beef supply chain, in the region covered by the Cerrado biome.

Using as a reference the rural properties registered in the Rural Environmental Registry system (CAR, acronym in Portuguese) until January 22, 2021 and crossing this information with the Digital Atlas of Brazilian Pastures - LAPIG, we identified that 57% of rural properties in the Cerrado may be associated with cattle ranching. Based on this premise, the potential impacts on the supply chain were analyzed by applying the criteria 3.1 - Illegal Conversion, 3.3 - Indigenous Land, 3.4 - Quilombola Territory, 3.5 - Conservation Units and 3.6 - Environmental Embargoes. The main results of this analysis are available in the annex to this publication ([in a separate document](#)).

### 1.2.3 – Consultation process

Between July and August 2021, a detailed consultation process was carried out involving a wide range of organizations, including representatives from different stakeholder groups: Meatpackers, Retailers, Food Industry, NGOs, Investors, MPF (Federal Public Ministry), INPE (National Institute for Space Research), Geotechnology Companies and Sectoral Initiatives. From a total of 33 organizations invited to participate in the consultation process, 20 confirmed their participation (details in Annex 1).

We made an effort to promote individual conversations with each organization, presenting in detail the content of the protocol in order to clarify any doubts and capture suggestions for improvement. In addition, we opened the space for group conversations and/or had a second or third call when requested.

The key considerations captured were detailed in the annex to this publication ([in a separate document](#)), containing a summary of the key results of the consultation process. This version of the Protocol already includes the main suggestions for improvements.

In this initial consultation process, divergent suggestions were raised for the reference dates for the illegal zero conversion criteria (criterion 3.1) and zero conversion (criterion 3.2) of native Cerrado vegetation. Thus, the need to expand the debate over the next few months, associated with a testing period, in order to identify impacts and necessary measures to enable greater convergence on the dates - activities foreseen in Phase 2 of the Cerrado Protocol development process, to be initiated in October 2021.

Within this context, in this version of the Protocol, criteria 3.1 and 3.2 and their respective reference dates remain unchanged until the tests are carried out and potential impacts on supply chains are observed using real cases. Some alternatives were suggested during the consultations and their implications will be better evaluated in this testing phase:

- Start with an alert for non-compliant direct cattle suppliers and establish a transition period (e.g., 2 years) for suppliers to regularize their situation. After this period, they would be suspended.
- Monitor deforestation polygons  $\geq 6.25$  ha instead of what is currently proposed ( $\geq 1.0$  ha), in line with the Monitoring Protocol for Cattle suppliers in the Amazon and reducing the immediate impact on the supply chain.
- Establish a more recent reference date to monitor illegal conversion (e.g., 2018), not monitoring suppliers that illegally deforested between 01/08/2008 and 31/07/2018.

The next sections present in detail the Version 1.1 for Tests of the Voluntary Monitoring Protocol for Cattle Suppliers in the Cerrado, which is the result of this collaborative effort to implement a more responsible sourcing strategy to purchase cattle products from the Cerrado biome.



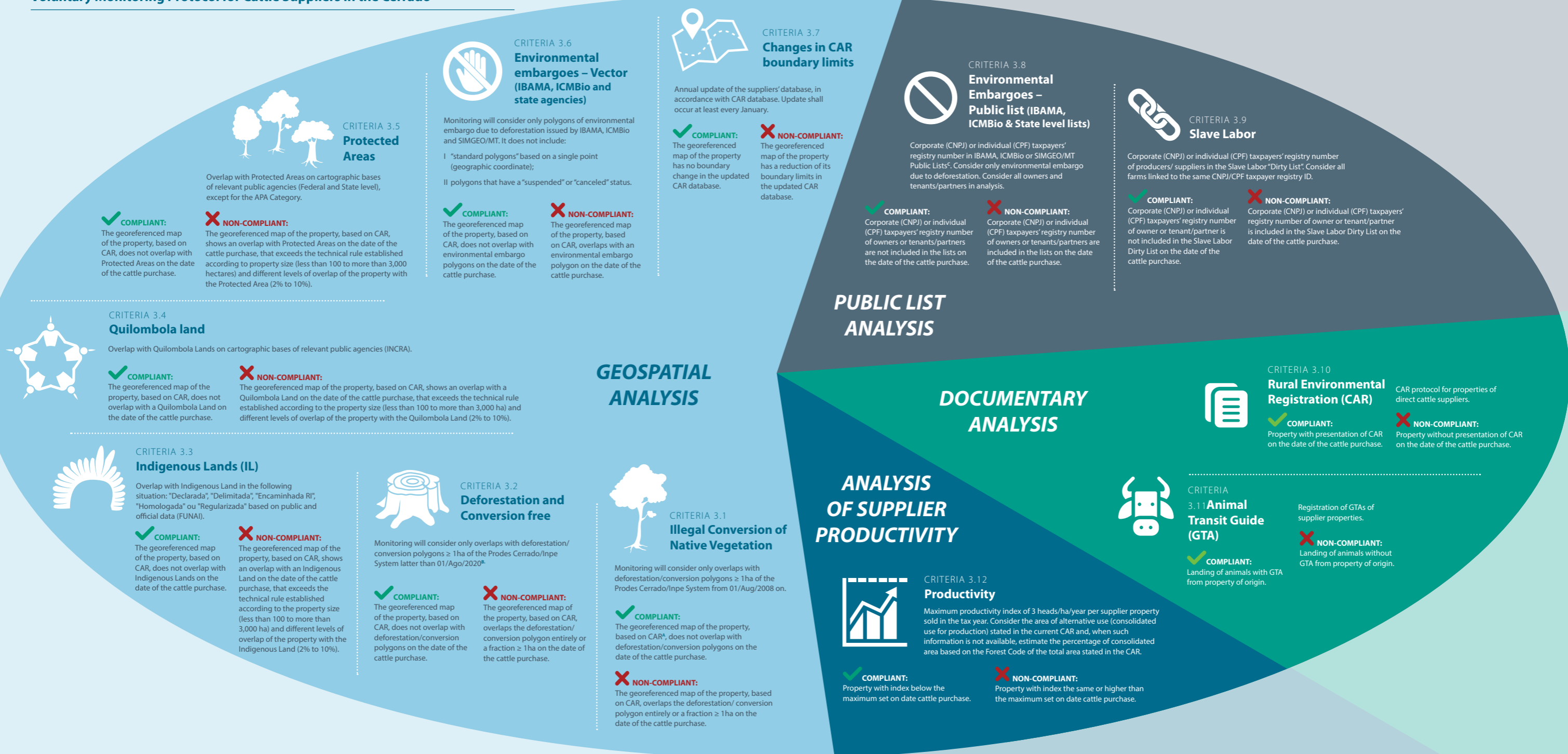
---

Source: iStock

# 02 Summary

The Voluntary monitoring Protocol for Cattle Suppliers in the Cerrado is structured on 12 criteria covering a range of social and environmental features relevant to responsible sourcing of cattle. Among the 12 criteria, seven can be monitored through geospatial analysis, two based on official public lists, two through documentation analysis and one via analysis of the direct cattle supplier productivity. A summary of these criteria is shown below, describing the parameters for a direct cattle supplier to be considered compliant or non-compliant according to each criterion. A detailed description of these parameters, the data sources to be used to follow the monitoring criteria as well as the rules for blocking and unblocking suppliers are provided after the summary.

## Voluntary Monitoring Protocol for Cattle Suppliers in the Cerrado

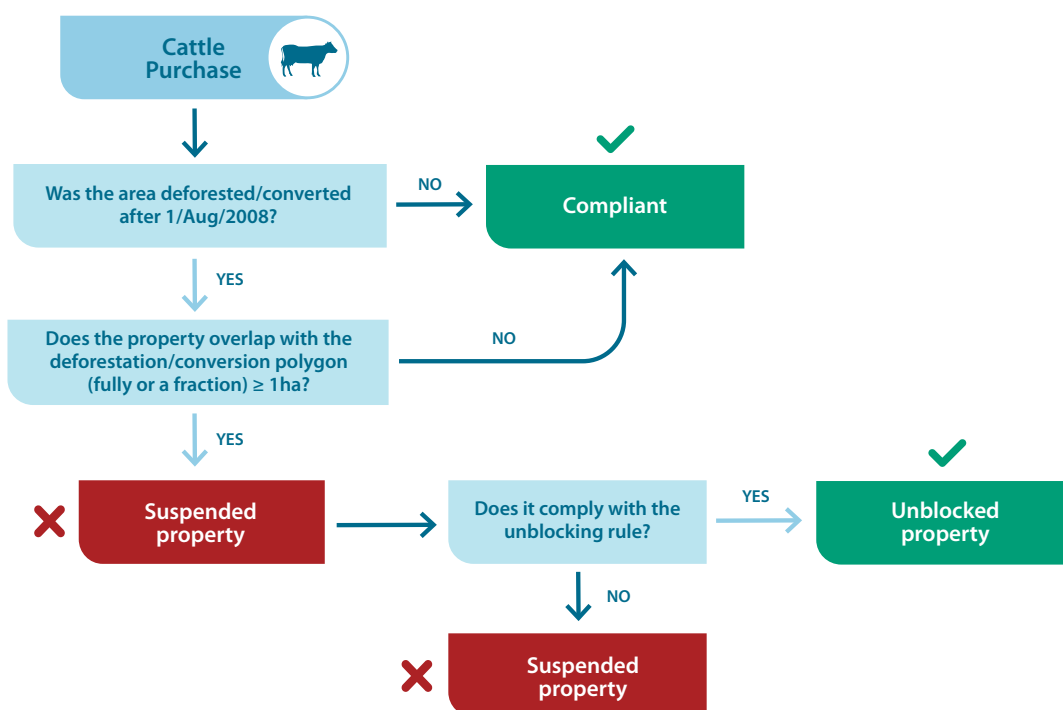


<sup>5</sup> The Brazilian Forest Code sets parameters for the maintenance and recovery of natural forests and makes the Environmental Rural Registry (CAR) mandatory for all rural properties in the country. All the areas where the native vegetation must be protected must also be recorded in CAR. This includes riverbanks, hillsides and mountaintops, as well as forest reserves to safeguard biodiversity.  
<sup>6</sup> For cases where the company already has a commitment to follow an earlier cut-off date, the suggestion is to maintain it – rationale being that the company will be applying an even more restrict reference date than the Protocol. <sup>7</sup> Even though the following states have lists of embargoed areas publicly available (SEMAD/GO, SIMGEO/MT, Naturatins/TO and SEMAD/MG), other than the IBAMA list, only ICMBio and SIMGEO/MT have available to download the data in excel format, which allows multiple consultations. All the other states that have lists available, it is possible only individual consultations using CPF/CNPJ, which makes it unfeasible, currently, to consider their lists under this protocol. <sup>8</sup> Important to highlight that the Provisional Operational Authorization from SEMA/Mato Grosso state, is a temporary process, that it has been renewed year after year.

## 03 Monitoring criteria per theme

### 3.1 - Illegal Conversion of Native Vegetation

The analysis must be carried out in a geomonitoring system that includes updated georeferenced maps of the supplier farms (official database of Brazil’s National Rural Environmental Registry – CAR, as per the acronym in Portuguese) and the official databases of Prodes Cerrado/INPE, in which the overlap with deforestation/conversion polygons can be verified through a geospatial analysis. This service can be performed by the company itself or by a specialized third party. Consider for the monitoring only deforestation/conversion polygons with an area  $\geq 1$  ha of Prodes Cerrado/INPE and after 01/Aug/2008 (Prodes 2009).<sup>E</sup>



#### Note

The cut-off date (1/aug/2008) was defined to follow the date established by the Forest Code (22/jul/2008), when rural properties must not convert new areas of native vegetation, unless they possess an official Permit to Suppress Native Vegetation.

Database: Prodes Cerrado - National Institute for Space Research (INPE)<sup>9</sup>

#### Rule for property analysis



#### COMPLIANT:

The georeferenced map of the property, based on CAR, **does not overlap** with deforestation/conversion polygons on the date of the cattle purchase.



#### NON-COMPLIANT:

The georeferenced map of the property, based on CAR, **overlaps** the deforestation/conversion polygon entirely or a fraction  $\geq 1$  ha on the date of the cattle purchase.

<sup>E</sup> Prodes Cerrado database is made available from 2000 to 2012 with biennial data, and from 2013 on, the data is annual. The data is available with a resolution of 1 hectare. Even though the data from 2008-2013 is biennial, it was defined the cut-off date of 01/Aug/2008 to be able to follow the Forest Code.

### Rule for unblocking non-compliant properties

For a suspended property to return to a supply base, it must follow at least one of the rules:

N°	Unblocking rule
<b>1</b>	The property has a Permit to Suppress Native Vegetation or a Deforestation Permit issued by the state agency and dated prior to the occurrence of Prodes Cerrado; The conversion area shall not exceed the permit and location determined on it.
<b>2</b>	Confirm the existence of a false-positive deforestation/conversion through a geospatial multitemporal analysis.
<b>3</b>	The property must provide evidence that has followed the existent federal and/or state level environmental legislation to repair the damage and restore the area (i.e. adhere to the Environmental Regularization Program (PRA) or the Recovery Plan for Degraded Areas (PRAD) and present yearly a Technical Monitoring Report evidencing the implementation of the environmental regularization project).



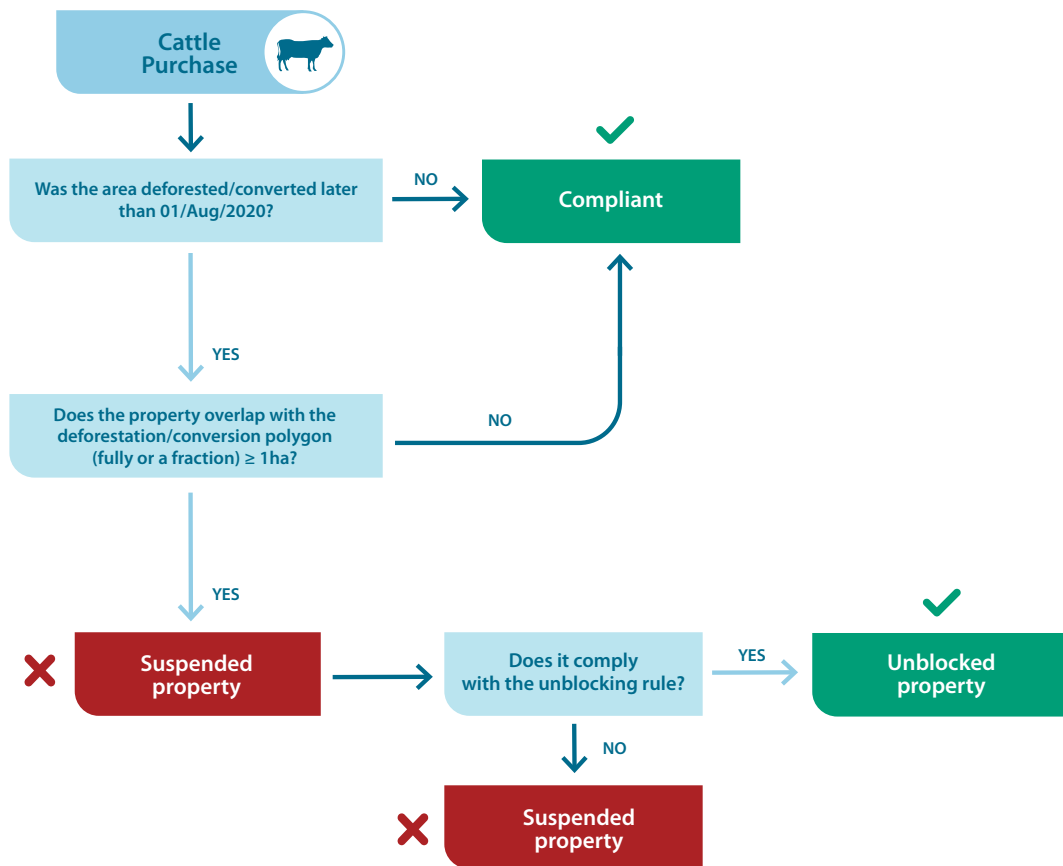
Figure 3 – Waterfall surrounded by Cerrado native vegetation, at the Chapada dos Veadeiros National Park, in Cavalcante/GO. Photographer: Pedro Santos.



## 3.2 - Deforestation and Conversion free

The analysis must be carried out in a geomonitoring system that includes updated georeferenced maps of the supplier farms (official database of Brazil’s National Rural Environmental Registry – CAR, as per the acronym in Portuguese) and the official databases of Prodes Cerrado/INPE, in which the overlap with deforestation/conversion polygons can be verified through a geospatial analysis. This service can be performed by the company itself or by a specialized third party. Consider for the monitoring only deforestation/conversion polygons with an area  $\geq 1$  ha of Prodes Cerrado/INPE and later than 01/Aug/2020.

\* **Note:** If the company already has a responsible sourcing policy with a reference date prior to the one suggested, the decision to maintain or not is up to them - the recommendation is only that it should not be after the date suggested in this protocol.



### Note

The 01/Aug/2020 cut-off date was initially selected to align with public commitments made by signatory companies of the Consumer Goods Forum and the New York Declaration on Forests, and at the same time, to match the annual series of Prodes Cerrado – the data comprehend a 12-month period, from August to July. Thus, Prodes Cerrado 2018 refers to data from August 2017 to July 2018, e.g.<sup>43</sup>

### Rule for property analysis



#### COMPLIANT:

The georeferenced map of the property, based on CAR, **does not overlap** with deforestation/conversion polygons on the date of the cattle purchase.



#### NON-COMPLIANT:

The georeferenced map of the property, based on CAR, **overlaps** the deforestation/conversion polygon entirely or a fraction  $\geq 1$ ha on the date of the cattle purchase.

### Rule for unblocking non-compliant properties

For a suspended property to return to a supply base, it must follow at least one of the rules:

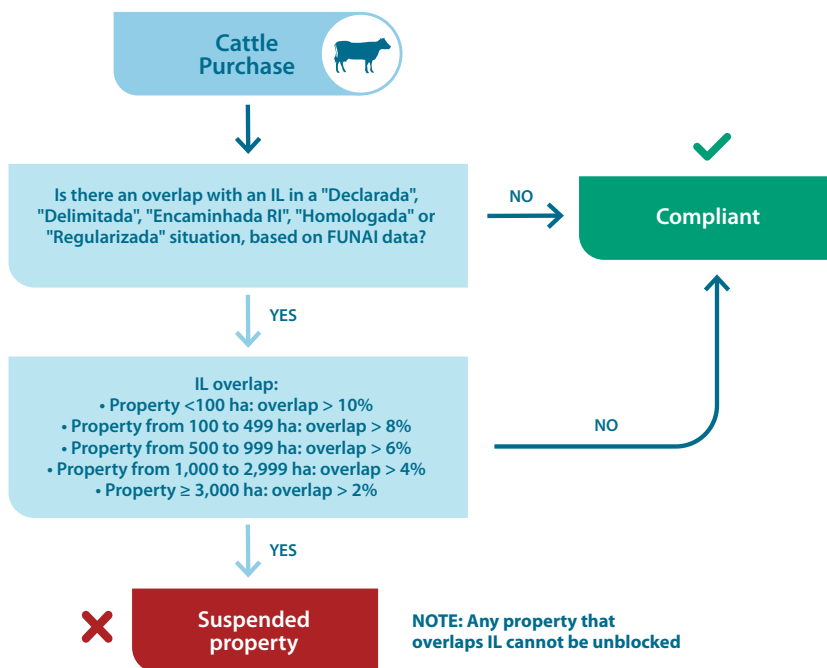
N°	Unblocking rule
1	Prove the existence of a false-positive deforestation/conversion through a geospatial multitemporal analysis.
2	Properties where conversion is proven to occur in the Cerrado biome after the reference date of this document will be suspended from the list of company suppliers and will only be readmitted after proof that the environmental damage has been remedied (i.e. submit yearly a Technical Monitoring Report evidencing the implementation of a restoration project).



Source: iStock

### 3.3 - Indigenous Lands (IL)


The analysis must be carried out in a geomonitoring system that includes the updated georeferenced maps of the supplier farms (official database of Brazil’s National Rural Environmental Registry – CAR) and the official databases of the National Indigenous Peoples’ Foundation (FUNAI) and in which the overlap with Indigenous Land can be verified through a geospatial analysis. This service can be performed by the company itself or by a specialized third party. The Indigenous Lands that will be recognized for this Protocol are those that are in the following situation: "Declarada", "Delimitada", "Encaminhada RI", "Homologada" ou "Regularizada", based on public and official data (FUNAI).




**Note**  
 This criterion follows the Monitoring Protocol for Cattle Suppliers in the Amazon<sup>8</sup>, applying similar parameters for a property to be considered compliant. In addition, there is a consensus in the industry that it is crucial to monitor overlap with Indigenous Lands. From 13 companies assessed during the benchmarking exercise, 10 companies mentioned to monitor production areas overlap with Indigenous Lands.

Database: Indigenous lands polygons from the National Indigenous Foundation (FUNAI)<sup>10</sup>. More information on the demarcation process [here](#)<sup>11</sup>.

#### Rule for property analysis

**COMPLIANT:**  
 The georeferenced map of the property, based on CAR, **does not overlap** with Indigenous Lands polygons on the date of the cattle purchase.

**NON-COMPLIANT:**  
 The georeferenced map of the property, based on CAR, **overlaps** with Indigenous Lands polygons on the date of the cattle purchase, that exceeds the technical rule established according to the property size:

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>Property &lt; 100 ha: property overlaps IL</li> <li>Property from 100 to 499 ha: property overlaps IL</li> <li>Property from 500 to 999 ha: property overlaps IL</li> <li>Property from 1,000 to 2,999 ha: property overlaps IL</li> <li>Property ≥ 3,000 ha: property overlaps IL</li> </ul> | <ul style="list-style-type: none"> <li>&gt; 10% of the total property area</li> <li>&gt; 8% of the total property area</li> <li>&gt; 6% of the total property area</li> <li>&gt; 4% of the total property area</li> <li>&gt; 2% of the total property area.</li> </ul> |
|--|--|

### Rule for unblocking non-compliant properties

Any property that overlaps IL cannot be unblocked, the owner needs to remedy the issue with FUNAI and other relevant entities.



Figure 4 - Itacaja, Tocantins / Brazil - March 10th 2016: Life in the Kraho indigenous community Aldeia Pé de Coco, northern areas of Cerrado, they face threat of violence and land demarcation issues. Source: iStock.

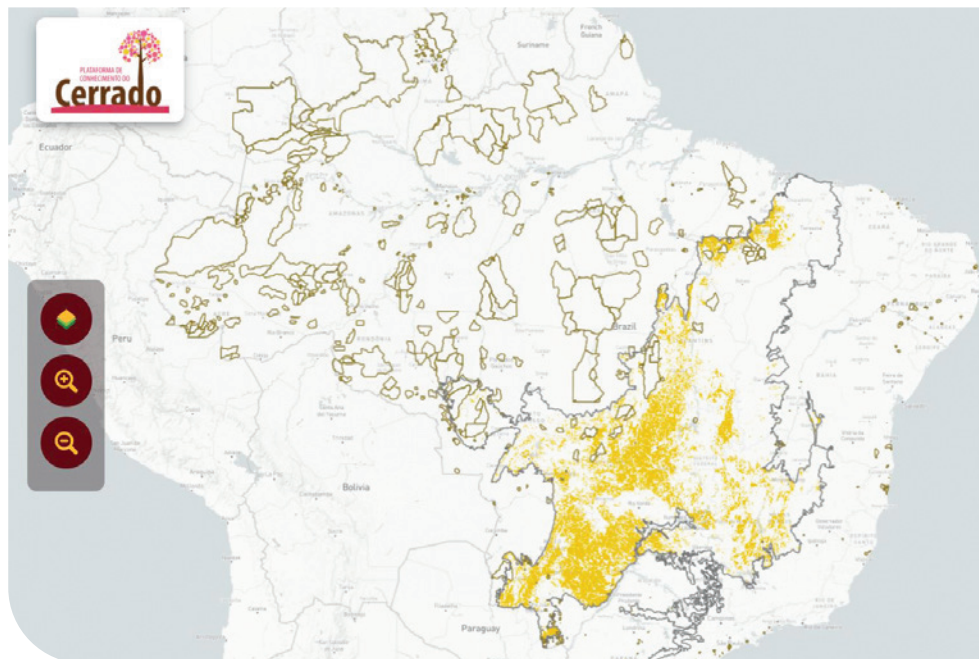
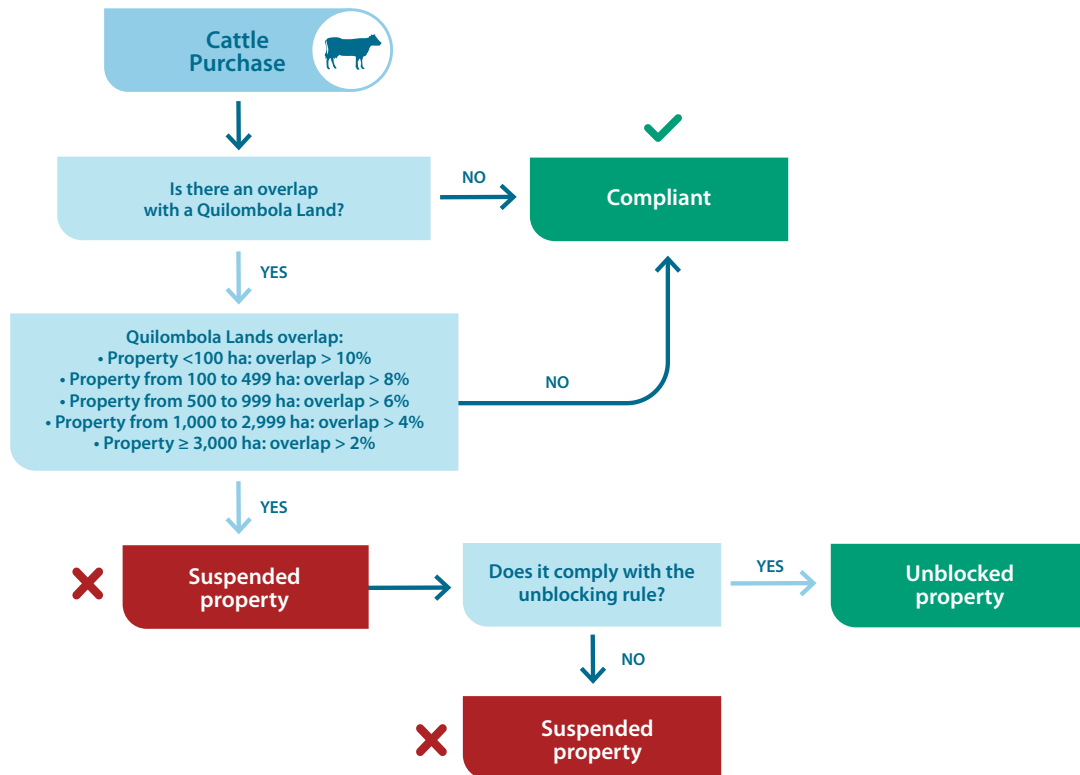


Figure 5 - Map highlighting the Indigenous Territories in Brazil and the pasture areas in the Cerrado in 2019<sup>12</sup>.



### 3.4 - Quilombola land (QL)

The analysis must be carried out in a geomonitoring system that includes the updated georeferenced maps of the supplier farms (official database of Brazil’s National Rural Environmental Registry – CAR) and the official databases of the INCRA (National Institute for Settlement and Agrarian Reform), in which the overlap with Quilombola Lands can be verified through a geospatial analysis. This service can be performed by the company itself or by a specialized third party.



**Note**  
 This criterion was included as Quilombola communities are particularly relevant in the Cerrado context. Similar parameters were applied following the IL criterion (differences only on the unblocking rules). In addition, several companies mention they follow Free, Prior and Informed Consent (FPIC) principles, so this criterion could be used as a proxy.

Database: The national institute of colonization and land reform (INCRA)<sup>13</sup>. Shapefiles per state.

#### Rule for property analysis

**COMPLIANT:**  
 The georeferenced map of the property, based on CAR, **does not overlap** with Quilombola Lands polygons on the date of the cattle purchase.

**NON-COMPLIANT:**  
 The georeferenced map of the property, based on CAR, **overlaps** Quilombola Lands polygons on the date of the cattle purchase, that exceeds the technical rule established according to the property size:

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>Property &lt; 100 ha: property overlaps QL</li> <li>Property from 100 to 499 ha: property overlaps QL</li> <li>Property from 500 to 999 ha: property overlaps QL</li> <li>Property from 1,000 to 2,999 ha: property overlaps QL</li> <li>Property ≥ 3,000 ha: property overlaps QL</li> </ul> | <ul style="list-style-type: none"> <li>&gt; 10% of the total property area</li> <li>&gt; 8% of the total property area</li> <li>&gt; 6% of the total property area</li> <li>&gt; 4% of the total property area</li> <li>&gt; 2% of the total property area.</li> </ul> |
|--|--|

### Rule for unblocking non-compliant properties

As it is allowed to have cattle ranching activities within Quilombola lands, for a suspended property to return to a supply base, it must follow at least one of the rules bellow:

N°	Unblocking rule
1	Prove that the overlap is a cartographic error, and it is not an irregularity.
2	Prove that the cattle are raised by or with the permission of the Quilombola community, by presenting an authorization for raising the cattle issued by INCRA or Fundação Palmares.



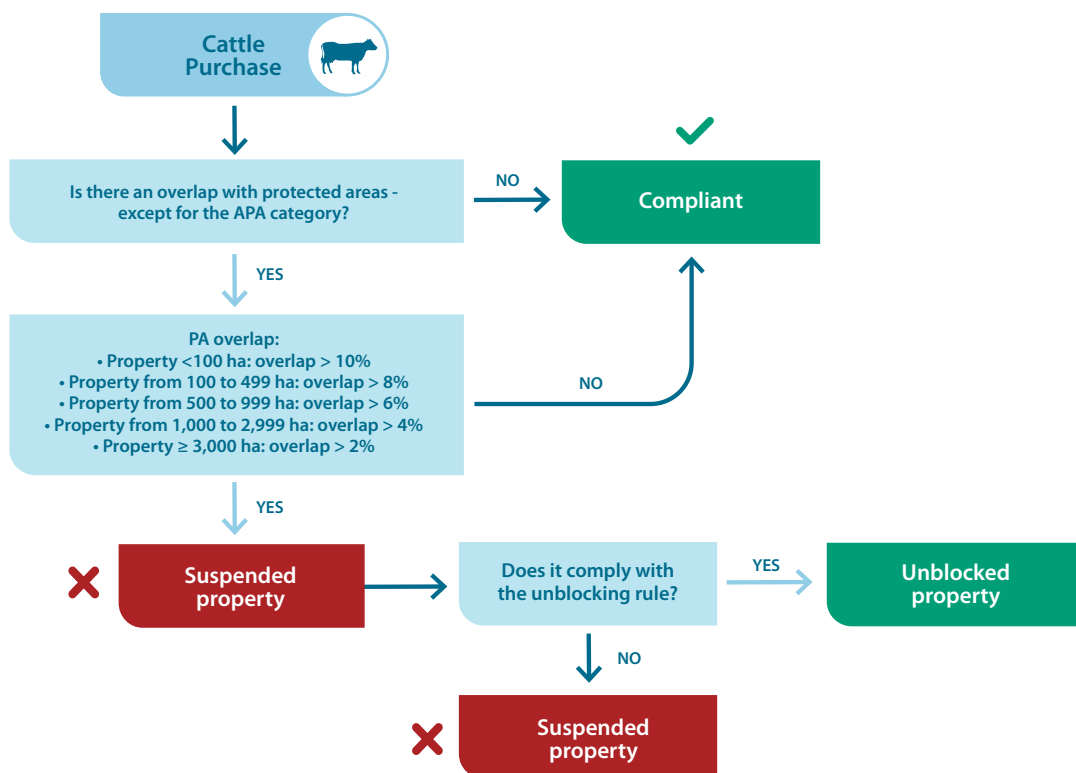
Figure 6 – Salto waterfall at the Chapada dos Veadeiros National Park, Cavalcante/GO. Photographer: Pedro Santos.

¶ It's highly recommended the adoption of Free, Prior and Informed Consent (FPIC) principles.



### 3.5 - Protected Areas

The analysis must be carried out in a geomonitoring system that includes the updated georeferenced maps of the supplier farms (official database of Brazil’s National Rural Environmental Registry – CAR) and the official map databases of the relevant public entities (federal, state or municipal), and in which the overlap with Protected Areas (PA)G - except for the APA (Environmental Protected Area) category - can be verified through a geospatial analysis. This service can be performed by the company itself or by a specialized third party.



**Note**

This criterion also follows the unified protocol for the Amazon<sup>6</sup>, applying similar parameters for a property to be considered compliant. In addition, there is a consensus in the industry that it is crucial to monitor overlap with Protected Areas (PA). From 13 companies assessed during the benchmarking exercise, 10 companies mentioned to monitor production areas overlap with PA.

Database: Map database of federal public agencies (MMA<sup>14</sup> and ICMBio)<sup>15</sup>.

Map database of state public agencies (SIEG – GO)<sup>16</sup>, SEFAZ - TO<sup>17</sup>, Intermat - MT<sup>18</sup>, IMASUL – MS<sup>19</sup>, IDE-Sisema – MG<sup>20</sup>, SEMAR - PI<sup>21</sup>, DataGEO - SP<sup>22</sup>.<sup>H</sup>

<sup>6</sup> On July 18<sup>th</sup>, 2000, through the Federal Law n° 9985, the Brazilian Government created the National System of Protected Areas (SNUC, in Portuguese), in order to establish a robust mechanism to ensure the creation, management and consolidation of protected areas (PA) in Brazil.

<sup>H</sup> Bahia, Maranhão, Piauí, Rondônia, Paraná states and Distrito Federal at the time of this analysis did not have currently available to download shapefiles of state and municipal Protected Areas.

### Rule for property analysis



**COMPLIANT:**

The georeferenced map of the property, based on CAR, **does not overlap** with Protected Areas on the date of the cattle purchase.



**NON-COMPLIANT:**

The georeferenced map of the property, based on CAR, **overlaps** Protected Areas, except for the APA category, on the date of the cattle purchase, that exceeds the technical rule established according to the property size:

<ul style="list-style-type: none"> <li>Property &lt; 100 ha: property overlaps PA</li> <li>Property from 100 to 499 ha: property overlaps PA</li> <li>Property from 500 to 999 ha: property overlaps PA</li> <li>Property from 1,000 to 2,999 ha: property overlaps PA</li> <li>Property ≥ 3,000 ha: property overlaps PA</li> </ul>	<ul style="list-style-type: none"> <li>&gt; 10% of the total property area</li> <li>&gt; 8% of the total property area</li> <li>&gt; 6% of the total property area</li> <li>&gt; 4% of the total property area</li> <li>&gt; 2% of the total property area.</li> </ul>
--	--

### Rule for unblocking non-compliant properties

For a suspended property to return to a supply base, it must follow at least one of the rules:

Nº	Unblocking rule
1	There is no unblock for those who entered the area after the creation of the PA. For the others, need to provide evidence of the expropriation of rural property and indemnity for ownership – When there is an official document issued by the Chico Mendes Institute for Biodiversity Conservation (ICMBio) or a relevant entity allowing the producer to provisionally own the property located in the PA, where there has not been proper land regularization and provided that the Public Prosecutor’s Office does not oppose to it.
2	Sustainable Use of the categories that allow cattle breeding – Direct suppliers that present documentation in line with the premises of the PA creation decree and/or management plan and/or letter from ICMBio or other relevant entity.

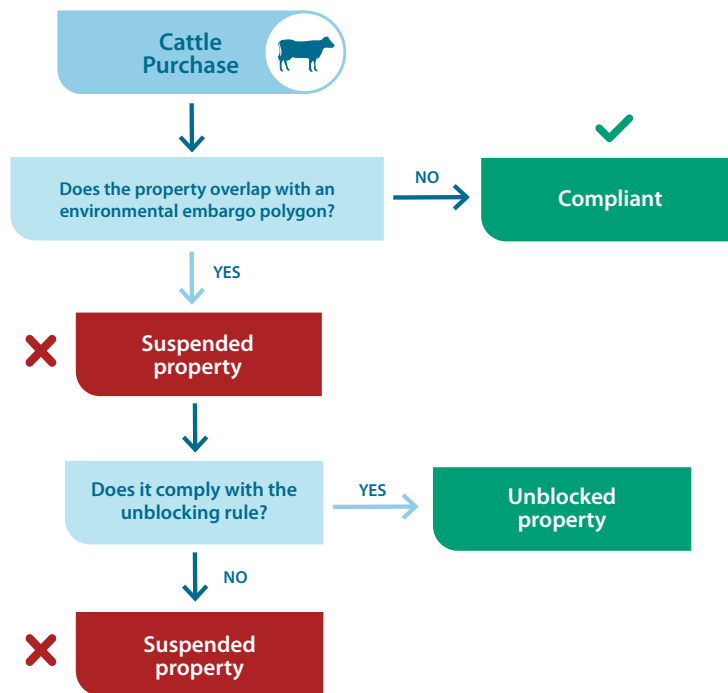


Figure 7 – Chapada dos Veadeiros National Park, Cavalcante/GO. Photographer: Pedro Santos.



### 3.6 - Environmental embargoes – Vector (IBAMA, ICMBio and State agencies)

The analysis must be carried out in a geomonitoring system that includes the updated georeferenced maps of the supplier farms (official database of Brazil’s National Rural Environmental Registry – CAR) and the official databases of the relevant public entities (at the federal level - IBAMA and ICMBio – and at the state level - SIMGEO/Mato Grosso), that contain geographical information [Vector] and in which the overlap with environmental embargo polygons due to deforestation can be verified through a geospatial analysis. This service can be performed by the company itself or by a specialized third party. The following will not be considered in the analysis: (i) “standard polygons” based on a single point (or geographic coordinate); (ii) polygons that are in a “suspended” or “canceled” status.



**Note**

This criterion also follows the unified protocol for the Amazon<sup>8</sup>, applying similar parameters for a property to be considered compliant, with the addition of the ICMBio and State level databases that are publicly available (at the moment, only Mato Grosso State). The reason to add those extra databases is basically to follow the commitments from companies around legality.

Database: Federal level: Brazilian Institute of the Environment and Renewable Natural Resources (IBAMA<sup>23</sup> and Siscom<sup>24</sup>). Chico Mendes Institute for Biodiversity Conservation (ICMBio)<sup>15</sup>.

State level: SIMGEO<sup>25</sup>/Mato Grosso.

**Rule for property analysis**



**COMPLIANT:**

The georeferenced map of the property, based on CAR, **does not overlap** with the environmental embargo polygon on the date of the cattle purchase.



**NON-COMPLIANT:**

The georeferenced map of the property, based on CAR, **overlaps** with the environmental embargo polygon on date cattle purchase.

### Rule for unblocking non-compliant properties

For a suspended property to return to a supply base, it must follow at least one of the rules:

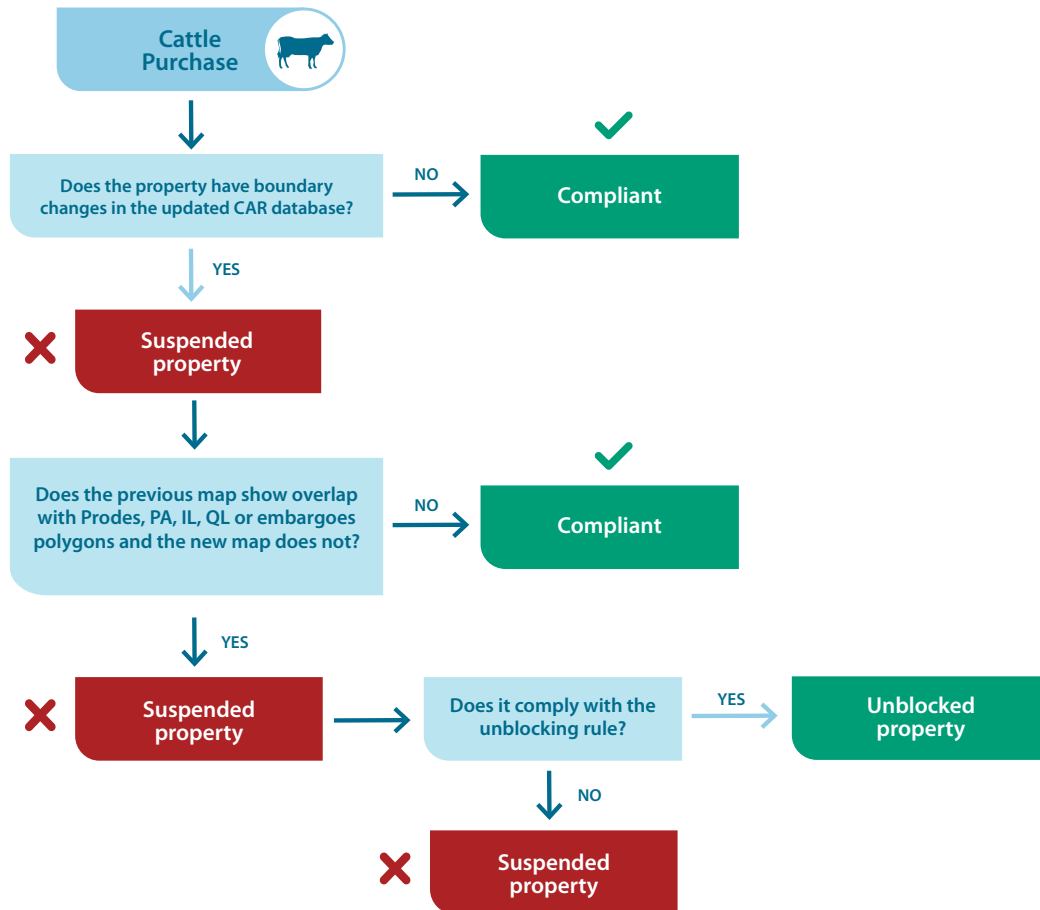
N°	Unblocking rule
1	Official letter from the entity that established the embargo clarifying that the embargoed property is not that one. It is recommended to request for a correction in the responsible agency's database.
2	Follow the rule of the Illegal conversion criteria in this Protocol to unblock it.



Figure 8 - Veredas waterfall, Cavalcante/GO municipality. Photographer: Pedro Santos.

### 3.7 – Changes in CAR boundary limits

The analysis must be carried out in a geomonitoring system that includes the georeferenced maps of the supplier farms (official database of Brazil’s National Rural Environmental Registry – CAR). The company must update the database with the maps of the supplier farms annually, in accordance with the available CAR database. The update must be made at least every January. This service can be performed by the company itself or by a specialized third party.



**Note**  
This criterion also follows the Monitoring Protocol for Cattle Suppliers in the Amazon<sup>8</sup>, applying similar parameters for a property to be considered compliant.

Database: Environmental Rural Registry (CAR) website (Sicar)<sup>26</sup> and the National Rural Registry System (SNCR)<sup>27</sup>, Mato Grosso State Car Website (Simcar/MT)<sup>28</sup>, Environmental Rural Registry system of São Paulo (Sicar/SP)<sup>29</sup>, Siriema/Imasul – MS<sup>30</sup>, State Forest Registry of Rural Properties (CEFIR/BA)<sup>31</sup>, SIG-CAR/TO<sup>32</sup>, Rorônia State CAR website (SICAR/RO)<sup>33</sup>.

#### Rule for property analysis

**COMPLIANT:**  
The georeferenced map of the property has no boundary change in the updated CAR databas.

**NON-COMPLIANT:**  
The georeferenced map of the property has boundary changes in the updated CAR database.

### Rule for unblocking non-compliant properties

For a suspended property to return to a supply base, it must follow at least one of the rules:

N°	Unblocking rule
1	When the previous map and the new map have no overlaps with Prodes, PA, IL, QL and/or embargoes polygons.
2	If the previous map overlaps with a Prodes, PA, IL, QL and/or embargoes polygon and the new map no longer has this overlap, additional analysis of the new property map must be carried out. Check if the change in the property map is consistent with the updated documents of the property and those submitted by the producer, notably: property registration or certificate.

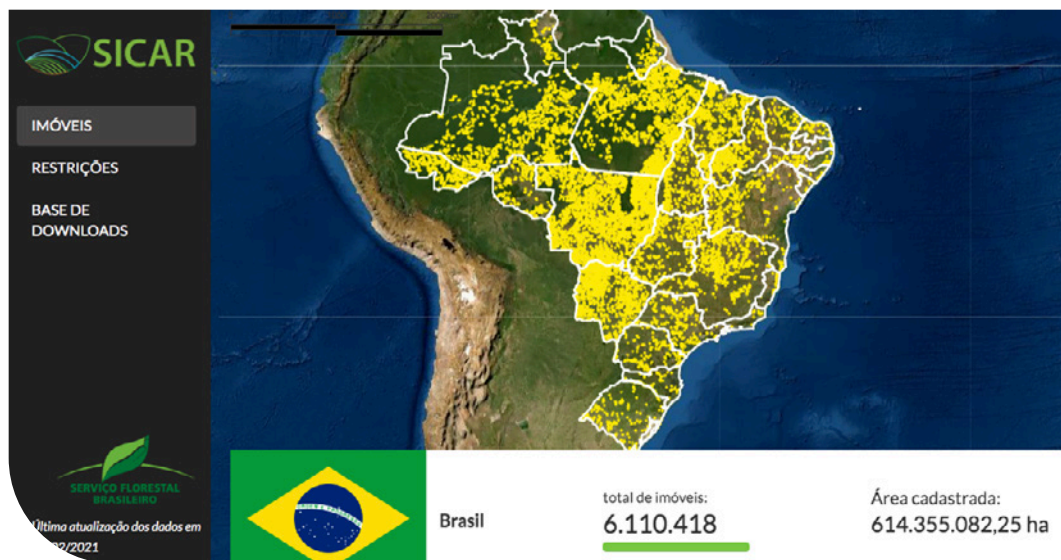


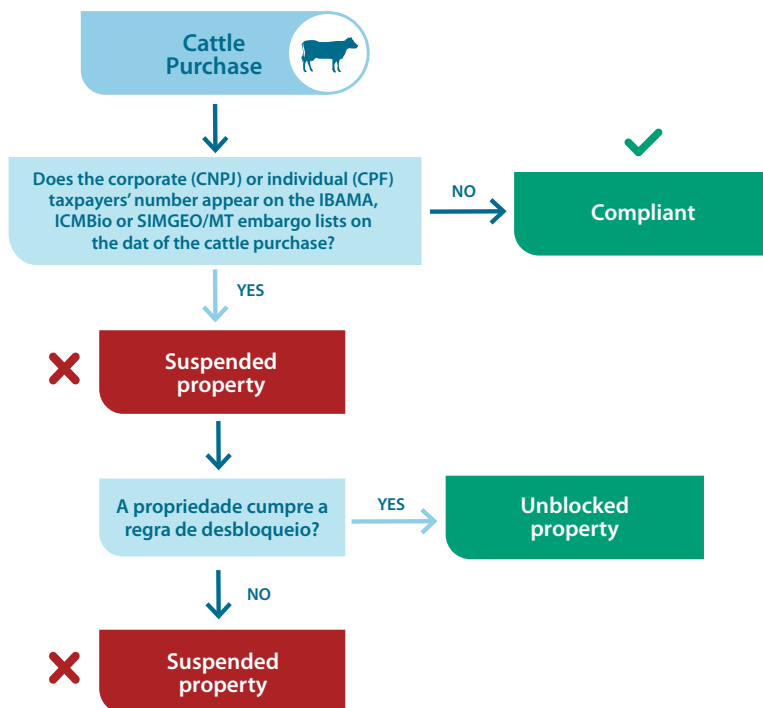
Figure 9 - The Brazilian National Rural Registry System (SICAR) website. Source: (Sicar<sup>26</sup>)



Source: iStock

### 3.8 – Environmental Embargoes – Public list (IBAMA, ICMBio & State level lists)

The analysis is made by crosschecking the corporate (CNPJ) or individual (CPF) taxpayers’ registry number of the farm owner, who sold the cattle, in IBAMA, ICMBio or SIMGEO/MT Public Lists <sup>1</sup> on the date the cattle was purchased (i.e., the date stated in the contract or in the company’s electronic purchase order system). It will be considered only environmental embargo due to deforestation/conversion, so the block is restricted only to properties with these types of embargoes. If the farm is leased, the CNPJ or CPF of the farm owner and the tenant, who is leasing the land from the farmer, must be checked. It is recommended for the company to download the public lists daily since they are updated on an ongoing basis.



**Note**

This criterion also follows the Monitoring Protocol for Cattle Suppliers in the Amazon<sup>8</sup>, applying similar parameters for a property to be considered compliant, with the addition of the ICMBio and State level public lists (at the moment, only Mato Grosso State makes available to download in excel format, which allows multiple consultations). The reason to add those extra databases is basically to follow the commitments from companies around legality.

Database: Brazilian Institute of the Environment and Renewable Natural Resources (Ibama)<sup>24</sup>, Chico Mendes Institute for Biodiversity Conservation (ICMBio)<sup>15</sup> and SIMGEO/Mato Grosso<sup>25</sup>.

**Rule for property analysis**

**COMPLIANT:**

Corporate (CNPJ) or individual (CPF) taxpayers’ registry number of owner or tenant/partner is not included in the lists on the date of the cattle purchase.



**NON-COMPLIANT:**

Corporate (CNPJ) or individual (CPF) taxpayers’ registry number of owner or tenant/partner is included in the lists on the date of the cattle purchase.



<sup>1</sup> Even though the following states have lists of embargoed areas publicly available (SEMAD/GO, SIMGEO/MT, Naturatins/TO and SEMAD/MG), other than the IBAMA list, only ICMBio and SIMGEO/MT have available to download the data in excel format, which allows multiple consultations. All the other states that have lists available, it is possible only individual consultations using CPF/CNPJ, which makes it unfeasible, currently, to consider their lists under this protocol.

### Rule for unblocking non-compliant properties

For a suspended property to return to a supply base, it must follow at least one of the rules:

Nº	Unblocking rule
1	Official letter from the entity that establishes the embargo clarifying that the embargoed property is not that one. For corporate (CNPJ) or individual (CPF) taxpayers' registry number included in the lists, and which are linked to more than one property, check if the supplier property does not have the same name as the subject of the embargo, as well as the geographic coordinates, the municipality, the tax assessment notice and other property information.
2	Follow the rule of the Illegal conversion criterion (3.1) in this Protocol to unblock it.

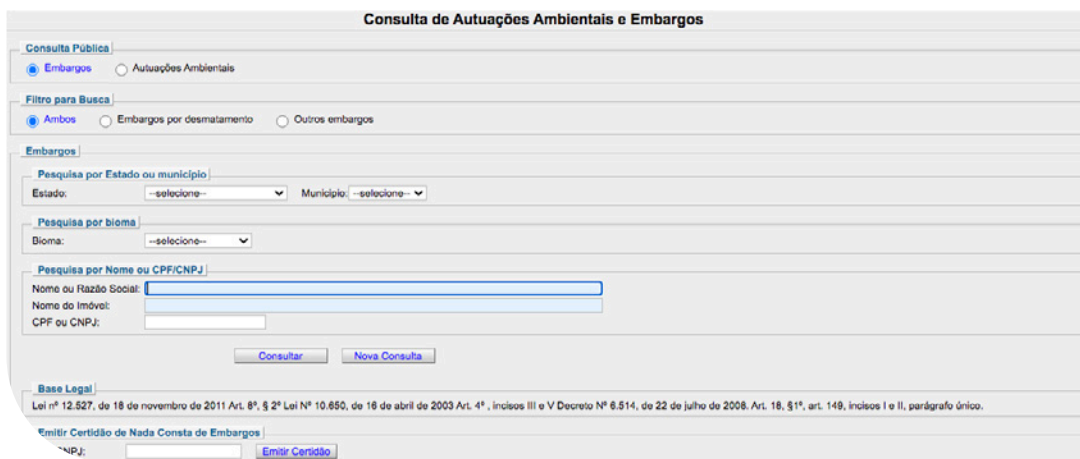


Figure 10 - A picture of the IBAMA Embargoed areas consultation website. It is possible to filter for Embargoed areas due to illegal deforestation only, separating from other environmental related infractions.

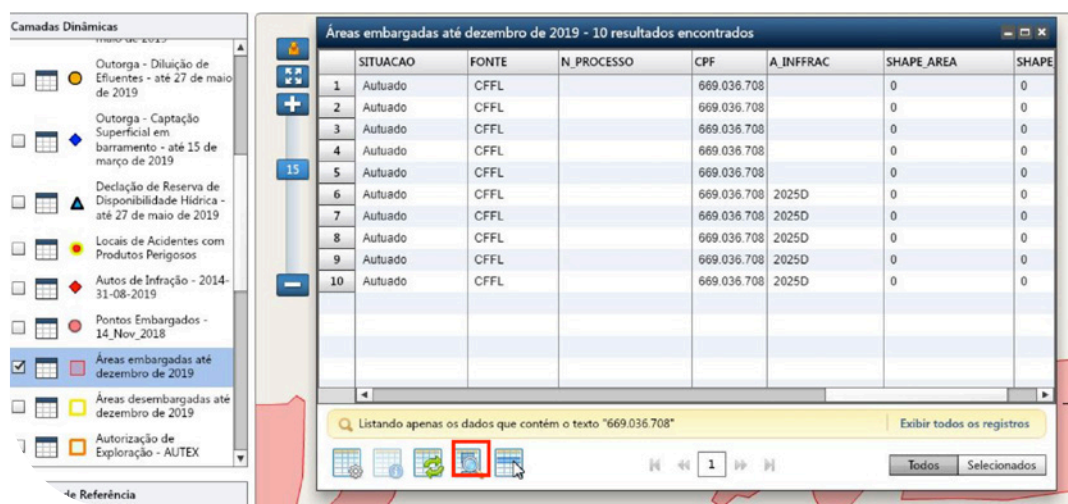
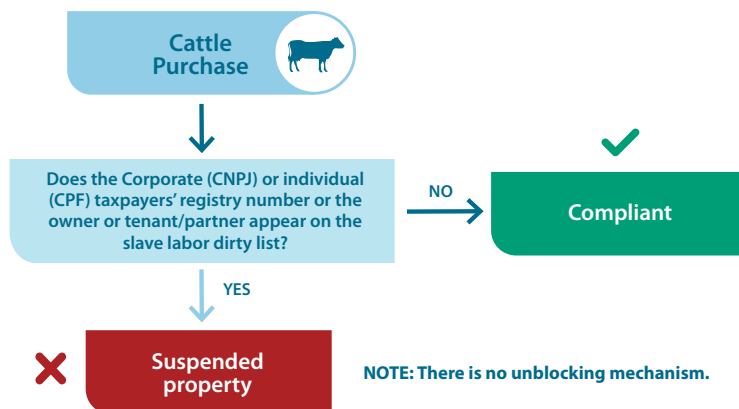


Figure 11 - Picture of the MT environmental agency website SIMGEO, indicating in red where to click to search for embargoed areas in the State, using the CPF/CNPJ. Possible to download the shapefile or in XLSX format.



### 3.9 – Slave Labor

This analysis is done by crosschecking the corporate (CNPJ) or individual (CPF) taxpayers’ registry number of the farm owner who sold the cattle, with the Slave Labor Dirty List. If the farm is leased, the corporate (CNPJ) or individual (CPF) taxpayers’ registry number of the farm owner and the tenant, who is leasing the land from the farmer, must be checked. Consider the block for all farms linked to the same CNPJ/CPF taxpayer registry number. It is recommended for the company to download the public lists daily since they are updated on an ongoing basis.



**Note**

This criterion also follows the Monitoring Protocol for Cattle Suppliers in the Amazon<sup>8</sup>, applying similar parameters for a property to be considered compliant. In addition, there is a consensus in the industry that it is crucial to monitor properties potentially linked with slave or forced labor practices. From 13 companies assessed during the benchmarking exercise, 11 companies mentioned to monitor the slave labor dirty list.

Database: List of the Labor Inspection Department of the Work and Welfare Ministry ([SIT/Trabalho](#))<sup>35</sup>.

**Rule for property analysis**

**COMPLIANT:**  
 Corporate (CNPJ) or individual (CPF) taxpayers’ registry number of owner or tenant/partner is not included in the Slave Labor Dirty List on the date of the cattle purchase.

**NON-COMPLIANT:**  
 Corporate (CNPJ) or individual (CPF) taxpayers’ registry number of owner or tenant/partner is included in the Slave Labor Dirty List on the date of the cattle purchase.

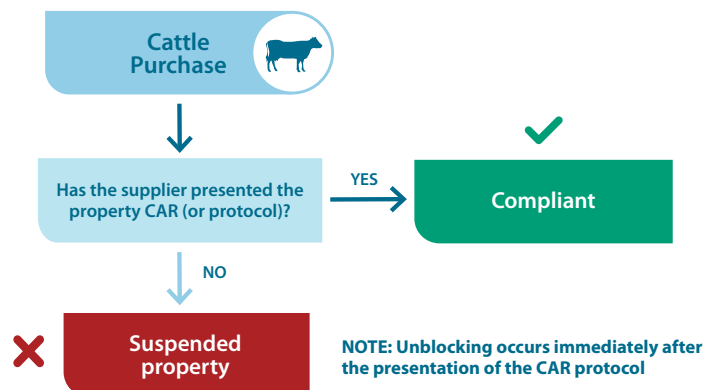
**Rule for unblocking non-compliant properties**

For a suspended property to return to a supply base, it must follow the rule below:

N°	Unblocking rule
1	All farms registered with the Corporate (CNPJ) or individual (CPF) taxpayers’ registry number identified in the Slave Labor Dirty List are suspended and remain so until the CPF/CNPJ number is excluded from that list, i.e., there is no possibility of unblocking while the CPF/CNPJ number remains in the Slave Labor Dirty List.

## 3.10 – Rural Environmental Registration (CAR)

The company must request the CAR (or protocol) of the property from the direct supplier.



### Note

This criterion also follows the Monitoring Protocol for Cattle Suppliers in the Amazon<sup>8</sup>, applying similar parameters for a property to be considered compliant. The only difference are the different state level CAR databases that needs to be monitored.

*Database: Direct producer supplier. Environmental Rural Registry (CAR) website (Sicar)<sup>26</sup>; National Rural Registry System (SNCR)<sup>27</sup>; Mato Grosso Car Website (Simcar/MT)<sup>28</sup>; CAR system of São Paulo (Sicar/SP)<sup>29</sup>; Siriema/Imasul30 (Mato Grosso do sul); State Forest Registry of Rural Properties (CEFIR/BA)<sup>31</sup>; SIG-CAR/Tocantins<sup>32</sup>; Rondônia CAR website (SICAR/RO)<sup>33</sup>.*

### Rule for property analysis



#### COMPLIANT:

Property with presentation of a valid CAR\* on the date of the cattle purchase.



#### NON-COMPLIANT:

Property without presentation of a valid CAR\* on the date of the cattle purchase.

*\*A valid CAR is not the same as a validated CAR. A valid CAR means a property that has been registered under the National or equivalent state CAR system. A validated CAR means that this property has been already analyzed by the responsible government institution. A CAR with canceled or suspended status is not considered valid.*

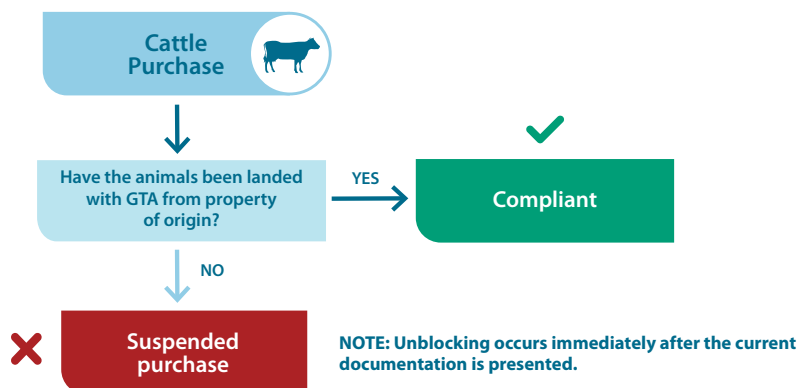
### Rule for unblocking non-compliant properties

For a suspended property to return to a supply base, it must follow the rule below:

N°	Unblocking rule
1	The farm will be unblocked immediately after the presentation of the CAR protocol that have an active status in the system. It is recommended for the CAR status to be searched on the official websites.

## 3.11 – Animal Transit Guide (GTA)

The employees of the Federal Inspection Service (SIF) of the Agriculture and Cattle and Supply Ministry (MAPA) are responsible for receiving the GTA that accompanies the animals at their landing. The company must verify that the registration of the GTAs (name of the property of origin of the animals) is the same as the supplier property identified in the purchase transactions of the meatpacking company.



### Note

This criterion also follows the Monitoring Protocol for Cattle Suppliers in the Amazon<sup>8</sup>, applying similar parameters for a property to be considered compliant.

Database: Guide accompanying the transport of animals for slaughter.

### Rule for property analysis



#### COMPLIANT:

Landing of animals with GTA from property of origin.



#### NON-COMPLIANT:

Landing of animals without GTA from property of origin.

### Rule for unblocking non-compliant properties

For a suspended property to return to a supply base, it must follow the rule below:

N°	Unblocking rule
1	The purchase will be unblocked immediately after the presentation of the appropriate documentation, i.e., with the GTA containing the property of origin and which has been registered in the purchase operation of the meatpacker.

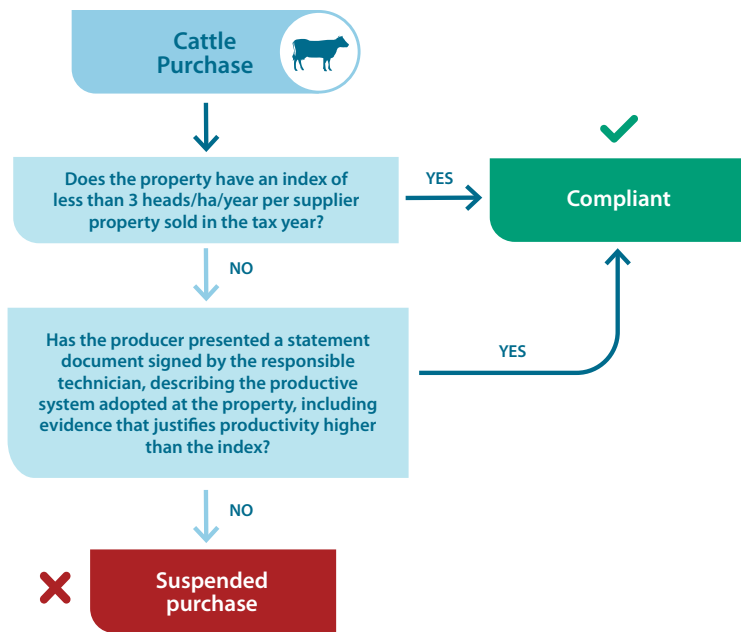


Source: iStock



### 3.12 – Productivity

The company must calculate the maximum productivity index of the supplier farm. Consider the number of heads of cattle sold in the tax year and the area of alternative use (consolidated use for production) declared in the current CAR in the calculation. When this area is not available, estimate the percentage of consolidated area based on the Forest Code of the total area stated in the CAR.



#### Note

This criterion also follows the Monitoring Protocol for Cattle Suppliers in the Amazon<sup>8</sup>, applying similar parameters for a property to be considered compliant. The productivity index of 3 heads per hectare was maintained based on the average productivity index in animal units per hectare (or UA/ha) identified in the main producing regions within the Legal Amazon<sup>44</sup>, which included Mato Grosso and Tocantins, states that are also within the scope of the Voluntary Monitoring Protocol for Cattle Suppliers in the Cerrado. In addition, according to the Digital Atlas of Brazilian Pastures from LAPIG45, the average UA/ha in 2019 in the Cerrado was 0,89 UA/ha, which is very close to the average productivity found for these key producing regions in the Legal Amazon. During the consultation process it was recommended a better qualification of this index, through a complementary study - this activity is planned for Phase 2 of the Cerrado Protocol project. Therefore, this index may change in the future, with a better understanding of the production context in the Cerrado.

Database: Environmental Rural Registry (CAR) website (Sicar)<sup>26</sup>; National Rural Registry System (SNCR)<sup>27</sup>; Mato Grosso State Car Website (Simcar/MT)<sup>28</sup>; Environmental Rural Registry system of São Paulo (Sicar/SP)<sup>29</sup>; Siriema/Imasul<sup>30</sup> (Mato Grosso do Sul); State Forest Registry of Rural Properties (CEFIR/BA)<sup>31</sup>; SIG-CAR/Tocantins<sup>32</sup>; Rondônia State CAR website (SICAR/RO)<sup>33</sup>.

#### Rule for property analysis



#### COMPLIANT:

property with an index of less than 3 heads/ha/tax year per supplier property on date cattle purchas.



#### NON-COMPLIANT:

property with an index equal or more than 3 heads/ha/tax year per supplier property on the date cattle purchase.

### Rule for unblocking non-compliant properties

For a suspended property to return to a supply base, it must follow the rule below:

N°	Unblocking rule
1	Presentation of the producer’s statement document, signed by the responsible technician, describing the productive system adopted at the property, including evidence that justifies productivity higher than the index. The personal statement is only valid for the tax year.

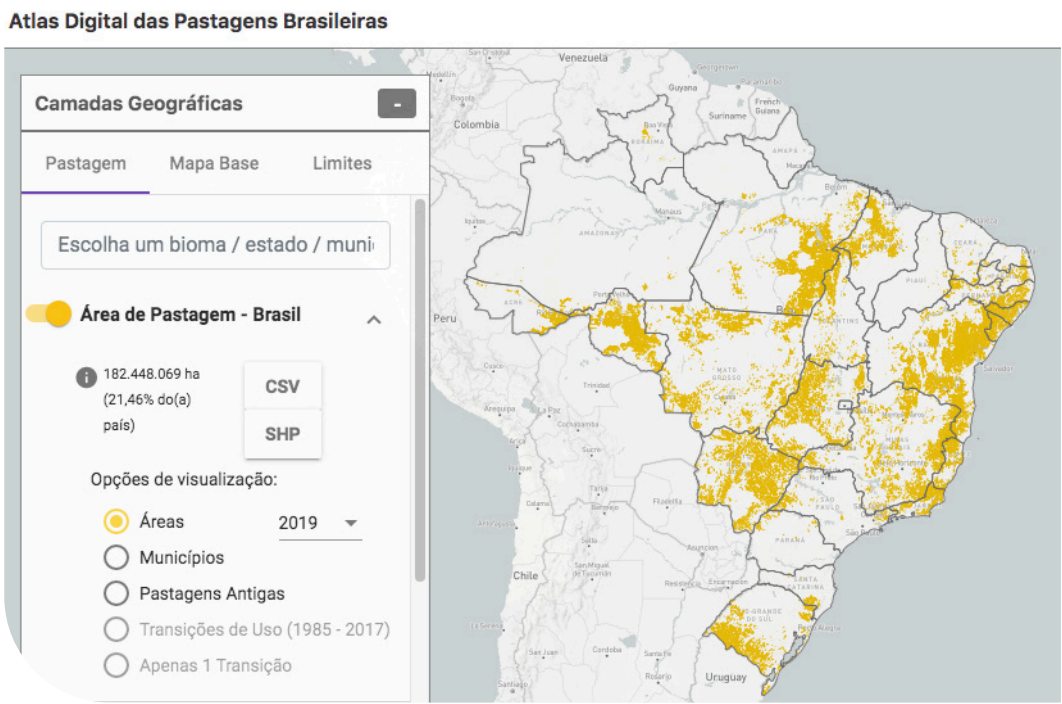


Figure 12 - Digital Atlas of Brazilian Pastures from LAPIG, indicating the average productivity index for the Cerrado biome in 2019. Source: <https://pastagem.org/atlas/map>



Source: iStock



Figure 13 – Cerrado native vegetation at the Chapada dos Veadeiros National Park. Photographer: Pedro Santos.

## 04 Optional criteria identified during the analysis

As part of the studies to develop this draft of a Voluntary Monitoring Protocol for Cattle Suppliers in the Cerrado, it was identified other less common criteria cited by companies and civil society organizations in their cattle supply chain agendas to tackle deforestation in Cerrado or other Brazilian biomes. They have not been included as the main criteria described on the first pages of this document, because of different reasons (not systematically available, use of non-official data sources or parameters difficult to be monitored with current available data, etc.). However, as they are already part of some commitments, a brief description of these criteria is provided below:

### a) No-burning

- Geo-monitoring of fire hotspots to prevent deforestation, based on information from INPE: <https://queimadas.dgi.inpe.br/queimadas/portal>.<sup>37</sup>
- Support prevention of burning by implementing action plans on the supply chain (producers to commit to no burning in the preparation of new plantings, re-plantings, or any other developments, including the management of existing plantations).
- JBS has an action plan and Walmart has no burning as a principle.

*\*Justification for not including as main criterion: As deforestation or conversion are already monitored and fires are usually one of the reasons or tools used to convert an area, it was concluded that the main issue (deforestation/conversion) is already captured on the suggested monitoring criteria.*

---

### b) GHG emissions

- Target to reduce GHG emissions from land use change in company's operations/supply chain, in metric tons of CO<sub>2</sub>-equivalent (including deforestation and conversion).
- No conversion of High Carbon Stock forests.
- Criteria assessed by platforms and presented in Cerrado Manifesto, Tesco, McDonalds, and Mars commitments.

*\*Justification for not including as main criterion: Even though it is a very relevant subject (given the climate change issue), it is something extremely complicated to be monitored across different actors in the cattle supply chain, in a harmonized/systematic way, especially under a block/unblock supplier framework.*

---

### c) Land registry

- Submit proof of Land Registry (SNCR) or equivalent Letter of Guarantee and Tax Registration.
- JBS, Marfrig and Minerva monitor this criterion.

*\*Justification for not including as main criterion: It was not included as this information is not systematically available. However, it is considered a relevant subject and the recommendation is to monitor this criterion if feasible.*

## d) Local Communities

- Guarantee the right of access to the land for indigenous people, traditional communities, and small farmers. (There is study of IPAM and IEB that could be used as initial database for the analysis: “Mapping of traditional “invisible” communities to support conservation of the Cerrado in Brazil)<sup>38</sup>.
- Adoption of Free, Prior and Informed Consent (FPIC) principles<sup>J</sup>.
- Promote the respect for the International Declaration of Human Rights (no sourcing from suppliers or farms involved with child labor or discrimination and respect the law including the rights of workers to compensation and benefits, working hours, freedom of association and right to collectively bargaining, health and safety, the environment and ethical business practices).
- Existing guidelines in Cerrado Manifesto, NY Declaration, Supply Change, Forest 500, Marfrig, GPA Casino, McDonalds, and Mars.

*\*Justification for not including as main criterion: Currently the aspect of monitoring FPIC would be partially monitored with the Indigenous Lands, Quilombola lands and Protected Areas criteria, using them as a proxy to avoid properties overlapping with these territories. It was decided to focus on these themes as they are systematically available and based on official governmental data, while the study from IPAM and IEB do not currently provide access to the database. Once the database is made available for consultation, the recommendation is to include it as an additional parameter to be monitored. The adoption of FPIC principles and the promotion of respect to the International Declaration of Human Rights are a recommendation for companies sourcing cattle to implement such practice, however not understood as a compliance/non-compliance monitoring aspect.*

---

## e) Inclusion of smallholders in the supply chain

- Support the inclusion of smallholders in the supply chain by adopting best production practices, restoring native vegetation. Develop reforestation projects for biodiversity corridors. Stipulate a quantity of hectares of land to recover.
- Develop projects that seek to value the small producer and thus contribute to the long-term protection of native forests.
- Existing guidelines in Cerrado Manifesto, Supply Change, Forest 500, Marfrig, GPA Casino, Carrefour, and McDonalds.

*\*Justification for not including as main criterion: It could be included as a recommendation for companies sourcing cattle to implement such practice, however not understood as a compliance/non-compliance monitoring criteria, but rather an initiative suggestion to the companies to engage their suppliers on sustainable practices.*

<sup>J</sup> FPIC is a principle protected by international human rights standards that state, ‘all peoples have the right to self-determination’ and – linked to the right to self-determination – ‘all peoples have the right to freely pursue their economic, social and cultural development’.

## f) Traceability System

- Commitment to develop and implement supply chain traceability systems. Every direct cattle supplier must inform the origins (i.e: Property, Municipality, State, Owner, CNPJ or CPF, CAR number and other information). Downstream companies may assess the region's risk using platforms as Trase or Agroideal or they can request the traceability information of direct supplier farms of the purchased products.
- Orientations from platforms and frameworks.

*\*Justification for not including on the Monitoring Protocol: It could be included as a recommendation for companies sourcing cattle to implement such practice, however further discussion should be held to a better understanding on the capacity of each company to monitor and systematize this information to guarantee conformity. Also, there are many controversies on the feasible processes to transfer information throughout the value chain attending the LGPD (Lei geral de proteção de dados – Brazilian General Data Protection Act).*



Source:: iStock

## 05 Monitoring of indirect cattle suppliers

Reaching traceability to indirect cattle suppliers can still be considered one of the main challenges of the sector, meaning that part of the cattle supply chain remains invisible for most companies currently monitoring cattle purchases. Efforts are being made by different organizations to develop tools and approaches to deal with the issue<sup>39</sup> and commitments from meatpackers to monitor these indirect suppliers also start to pop up<sup>40</sup>.

Even though the productivity index criterion is an attempt to capture the illegal practices related to indirect suppliers “laundering” cattle produced in an illegal situation<sup>8</sup>, there is still the need for companies to develop innovative solutions to trace back these indirect suppliers. Once companies have this information available, it is recommended they follow the best practices for monitoring indirect cattle suppliers, developed sectorally by the Indirect Suppliers Working Group (GTFI), or applying the same criteria described in this protocol for those companies willing to follow more restrictive criteria for this type of supplier.



Source: Proforest

## References

- 1** Pacheco, P., Mo, K., Dudley, N., Shapiro, A., Aguilar-Amuchastegui, N., Ling, P.Y., Anderson, C. and Marx, A. 2021. Deforestation fronts: Drivers and responses in a changing world. WWF. [Online] 2021. <https://www.wwf.ch/sites/default/files/doc-2021-01/Deforestation%20fronts%20-%20drivers%20and%20responses%20in%20a%20changing%20world%20-%20full%20report.pdf>.
- 2** Biogeographic patterns and conservation in the South American Cerrado: A tropical savanna hotspot. . Cardoso Da Silva, J.M. and Bates, J.M. 2002, BioScience, pp. 52(3): 225-234.
- 3** Situação e perspectivas sobre as águas do Cerrado. . Lima, J.E.F.W. 2011, Ciência e Cultura , p. 63(3).
- 4** Conservation of the Brazilian Cerrado. Klink, C.A. and Machado, R.B. 2005, Conservation Biology , pp. 19(3): 707-713.
- 5** Moment of truth for the Cerrado hotspot. . Strassburg, B.B.N., Brooks, T., Feltran-Barbieri, R., Iribarrem, A., Crouzeilles, R., Loyola, R., ... Balmford, A. 2017, Nature Ecology & Evolution , p. 1(4): 0099.
- 6** Galuch, Tharic Pires Dias, Rosales, Fabricio Pini and Batalha, Mario Otavio. Management of socioenvironmental factors of reputational risk in the beef supply chain in the Brazilian Amazon region. [Online] February 18, 2019. [Cited: March 30, 2021.] <https://www.wageningenacademic.com/doi/abs/10.22434/IFAMR2018.0004>.
- 7** Repórter Brasil. Relatório da 'Repórter Brasil' sobre trabalho escravo na pecuária tem repercussão internacional. [Online] January 08, 2021. [Cited: March 30, 2021.] <https://reporterbrasil.org.br/2021/01/relatorio-da-reporter-brasil-sobre-trabalho-escravo-na-pecuaria-tem-repercussao-internacional/>.
- 8** IMAFLORA. Monitoring Protocol for Cattle Suppliers in the Amazon - Guidelines for the implementation of the Terms of Adjustment of Conduct executed with the Public Prosecutor's Office for the Amazon Region and of the G4 Cattle Agreement. [Online] 2020. [https://www.beefontrack.org/public/media/arquivos/1599054238-monitoring\\_protocol\\_cattle\\_suppliers\\_amazon.pdf](https://www.beefontrack.org/public/media/arquivos/1599054238-monitoring_protocol_cattle_suppliers_amazon.pdf).
- 9** INPE. [Online] [Cited: February 16, 2021.] <http://terrabrasilis.dpi.inpe.br/>.
- 10** FUNAI. Shape. [Online] [Cited: February 16, 2021.] <http://www.funai.gov.br/index.php/shape>.
- 11** Modalidades de Terras Indígenas. [Online] [Cited: February 16, 2021.] <http://www.funai.gov.br/index.php/indios-no-brasil/terras-indigenas>.
- 12** Cerrado Knowledge Platform. [Online] [Cited: March 30, 2021.] <https://cepf.lapig.iesa.ufg.br/#/>.
- 13** INCRA. Sistema de certificação de imóveis rurais. [Online] [Cited: February 16, 2021.] <https://certificacao.incra.gov.br/Certifica/>.
- 14** MMA. Mapa Temático e Dados Geoestatísticos das Unidades de Conservação Federais. [Online] [Cited: February 16, 2021.] <https://www.icmbio.gov.br/portal/geoprocessamentos/51-menu-servicos/4004-downloads-mapa-tematico-e-dados-geoestatisticos-das-uc-s>.
- 15** ICMBio. Mapa Temático e Dados Geoestatísticos das Unidades de Conservação Federais. [Online] [Cited: February 16, 2021.] <https://www.icmbio.gov.br/portal/geoprocessamentos/51-menu-servicos/4004-downloads-mapa-tematico-e-dados-geoestatisticos-das-uc-s>.
- 16** SIEG/GO. SIEG Mapas. [Online] [Cited: February 16, 2021.] <http://www.sieg.go.gov.br/siegmapas/mapa.php>.
- 17** SEFAZ/TO. Base de Dados Geográficos do Tocantins. [Online] [Cited: February 16, 2021.] <http://www.sefaz.to.gov.br/zoneamento/bases-vetoriais/base-de-dados-geograficos-do-tocantins---atualizacao-2019/>.
- 18** IMSAUL/MT. Bases Cartográficas. [Online] [Cited: February 16, 2021.] <http://www.intermat.mt.gov.br/-/11303036-bases-cartograficas>.
- 19** IMASUL/MS. SILSA - Sistema Interativo de Suporte ao Licenciamento Ambiental. [Online] [Cited: February 16, 2021.] [http://sisla.imasul.ms.gov.br/sisla/pagina\\_inicial.php](http://sisla.imasul.ms.gov.br/sisla/pagina_inicial.php).
- 20** Sisema/MG. IDE-Sisema. [Online] [Cited: February 16, 2021.] <http://idesisema.meioambiente.mg.gov.br/>.
- 21** SEMAR/PI. SECRETARIA DO MEIO AMBIENTE E RECURSOS HÍDRICOS DO ESTADO DO PIAUÍ. [Online] [Cited: February 16, 2021.] <http://www.semar.pi.gov.br/index.php>.
- 22** DATAGeo/SP. Sistema Ambiental Paulista. [Online] [Cited: February 16, 2021.] [https://datageo.ambiente.sp.gov.br/coffey?\\_48\\_INSTANCE\\_KDzpt1cNV1RS\\_iframe\\_text=Unidades+de+Conserva%C3%A7%C3%A3o&enviar=Consultar&p\\_p\\_id=48\\_INSTANCE\\_KDzpt1cNV1RS&\\_48\\_INSTANCE\\_KDzpt1cNV1RS\\_iframe\\_avancado=false#\\_48\\_INSTANCE\\_KDzpt1cNV1RS\\_%252525253Dhttps%2](https://datageo.ambiente.sp.gov.br/coffey?_48_INSTANCE_KDzpt1cNV1RS_iframe_text=Unidades+de+Conserva%C3%A7%C3%A3o&enviar=Consultar&p_p_id=48_INSTANCE_KDzpt1cNV1RS&_48_INSTANCE_KDzpt1cNV1RS_iframe_avancado=false#_48_INSTANCE_KDzpt1cNV1RS_%252525253Dhttps%2).
- 23** IBAMA. Áreas Embargadas pelo IBAMA. [Online] [Cited: February 19, 2021.] <https://dados.gov.br/dataset/areas-embargadas-pelo-ibama>.
- 24** SISCOM. Geoserver. [Online] [Cited: February 19, 2021.] <http://siscom.ibama.gov.br/geoserver/web/>.
- 25** SEMA/MT. Simgeo. [Online] [Cited: February 19, 2021.] <http://www.sema.mt.gov.br/transparencia/index.php/sistemas/simgeo>.

- 26 SICAR. Cadastro Ambiental Rural. [Online] [Cited: February 19, 2021.] <https://www.car.gov.br/#/>.
- 27 SNCR. Sistema Nacional de Cadastro Rural. [Online] February 19, 2021. <https://snrc.serpro.gov.br/snrc-web/public/pages/security/login.jsf;jsessionid=a1P+dUS9ldc8sj8CIBYN2soT.snrc-web3?windowId=56f>.
- 28 Simcar/MT. [Online] [Cited: February 19, 2021.] <https://monitoramento.sema.mt.gov.br/simcar/tecnico.app/publico/car>.
- 29 Sicar/SP. Sistema de Cadastro Ambiental Rural. [Online] [Cited: February 19, 2021.] <https://www.infraestruturameioambiente.sp.gov.br/sicar/>.
- 30 IMASUL/MS. Cadastro Ambiental Rural CAR-MS. [Online] [Cited: February 19, 2021.] <http://www.imasul.ms.gov.br/cadastro-ambiental-rural-car-ms/>.
- 31 CEFIR/BA. [Online] [Cited: February 19, 2021.] <http://www.cefir.ba.gov.br/>.
- 32 SEMARH. SIGCAR - Cadastro Ambiental Rural. [Online] [Cited: February 19, 2021.] <http://sigcar.semarh.to.gov.br/>.
- 33 SEDAM/RO. Cadastro Ambiental Rural de Rondônia. [Online] [Cited: February 19, 2021.] <http://car.sedam.ro.gov.br/#/site>.
- 34 IBAMA. Consulta de Autuações Ambientais e Áreas Embargadas. [Online] [Cited: February 19, 2021.] <https://servicos.ibama.gov.br/ctf/publico/areasebargadas/ConsultaPublicaAreasEmbargadas.php>.
- 35 Ministério da Economia. SIT - Inspeção do Trabalho. [Online] [Cited: February 19, 2021.] <https://sit.trabalho.gov.br/portal/>.
- 36 SEMA/MT. APF Rural. Consulta. [Online] [Cited: February 19, 2021.] <https://monitoramento.sema.mt.gov.br/apfruralconsulta/>.
- 37 INPE. Monitoramento de Queimadas e Incêndios. [Online] [Cited: February 19, 2021.] <https://queimadas.dgi.inpe.br/queimadas/portal>.
- 38 IPAM. Mapeamento de comunidades tradicionais “invisíveis” para apoiar a conservação do Cerrado no Brasil. [Online] [Cited: February 19, 2021.] <http://cepfcerrado.iieb.org.br/projetos/mapeamento-de-comunidades-tradicionais-invisiveis-para-apoiar-conservacao-do-cerrado-no-brasil/>.
- 39 Proforest. Understanding the beef supply chain: beef traceability and supply chain transparency. [Online] [Cited: February 16, 2021.] [https://static1.squarespace.com/static/5f4e580271ccf5263502e562/t/5fca2e589c93c058c48dca0a/1607085668542/BN02\\_BeefToolkit\\_Understanding+the+Supply+Chain.pdf](https://static1.squarespace.com/static/5f4e580271ccf5263502e562/t/5fca2e589c93c058c48dca0a/1607085668542/BN02_BeefToolkit_Understanding+the+Supply+Chain.pdf).
- 40 Marfrig. Plano Marfrig Verde +. [Online] [Cited: February 16, 2021.] <https://mrfg.brazilsouth.cloudapp.azure.com/sustentabilidade/plano-marfrig-verde>.
- 41 Accountability Framework Initiative. Operational Guidance on Cutoff Dates. [Online] [Cited: March 30, 2021.] <https://accountability-framework.org/operational-guidance/cutoff-dates/>.
- 42 INPE. Desmatamento no Cerrado é de 6.657 km<sup>2</sup> em 2018. [Online] December 11, 2018. <http://www.obt.inpe.br/OBT/noticias-obt-inpe/desmatamento-no-cerrado-e-de-6-657-km2-em-2018#:~:text=O%20PRODES%20Cerrado%20considera...&text=carrossel%20de%20imagens,%20resultado%20do%20mapeamento%20no%20bioma%20Cerrado%2C%20realizado%20pelo%20Instituto>.
- 43 Money Times. Tradings de soja do Brasil se comprometem com desmatamento zero a partir de 2020. [Online] January 15, 2021. [Cited: March 30, 2021.] <https://www.moneytimes.com.br/tradings-de-soja-do-brasil-se-comprometem-com-desmatamento-zero-a-partir-de-2020/>.
- 44 IMAFLORA. Boi na Linha. [Online] November 2020. [Cited: March 30, 2021.] [https://www.beefontrack.org/public/media/arquivos/1607625914-documento\\_tecnico\\_-\\_indice\\_de\\_produtividade\\_da\\_pecuaria\\_de\\_corte\\_na\\_amazonia.pdf](https://www.beefontrack.org/public/media/arquivos/1607625914-documento_tecnico_-_indice_de_produtividade_da_pecuaria_de_corte_na_amazonia.pdf).
- 45 LAPIG. Atlas Digital das Pastagens Brasileiras. [Online] [Cited: March 30, 2021.] <https://pastagem.org/atlas/map>.

## Annex 1 - List of organizations invited to participate in the consultation process and those that participated in the process

Nº	Type	Name	Invited	Individual consultation and/or group
1	Meatpackers	JBS	✓	✓
2		Marfrig	✓	✓
3		Minerva	✓	✓
4		Frigol	✓	✓
5		Plena Alimentos	✓	
6	Retailers	GPA/Cassino	✓	✓
7		Carrefour	✓	✓
8	Food industry	McDonald's	✓	✓
9		Mars	✓	✓
10		Nestlé	✓	✓
11	Public institutions	MPF - Tocantins	✓	✓
12		MPF - Mato Grosso	✓	✓
13		INPE	✓	✓
14	ONGs	WWF	✓	✓
15		NWF	✓	✓
16		Amigos da Terra	✓	✓
17		Greenpeace	✓	
18		TNC	✓	
19		Solidariedad	✓	
20		Instituto Cerrado	✓	
21		Conservação Internacional	✓	
22	Geotechnology companies	Agrotools	✓	✓
23		Nice planet	✓	✓
24		Geoflorestas	✓	✓
25	Investors	Emerging Markets Investors Alliance		✓
26	Academy	UFMG	✓	
27		UFG/Lapig	✓	
28	Sectoral Initiatives	GTPS	✓	✓
29		IMAC	✓	
30		Instituto CNA	✓	
31		Coalizão Brasil	✓	
32		SOS Cerrado Manifesto	✓	
33		PCI	✓	



GOOD  
GROWTH  
PARTNERSHIP



proforest



This work was created by Proforest and is licensed under the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License. To view a copy of this license, visit <https://creativecommons.org/licenses/by-nc-sa/4.0/>