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 Beef Public Commitment

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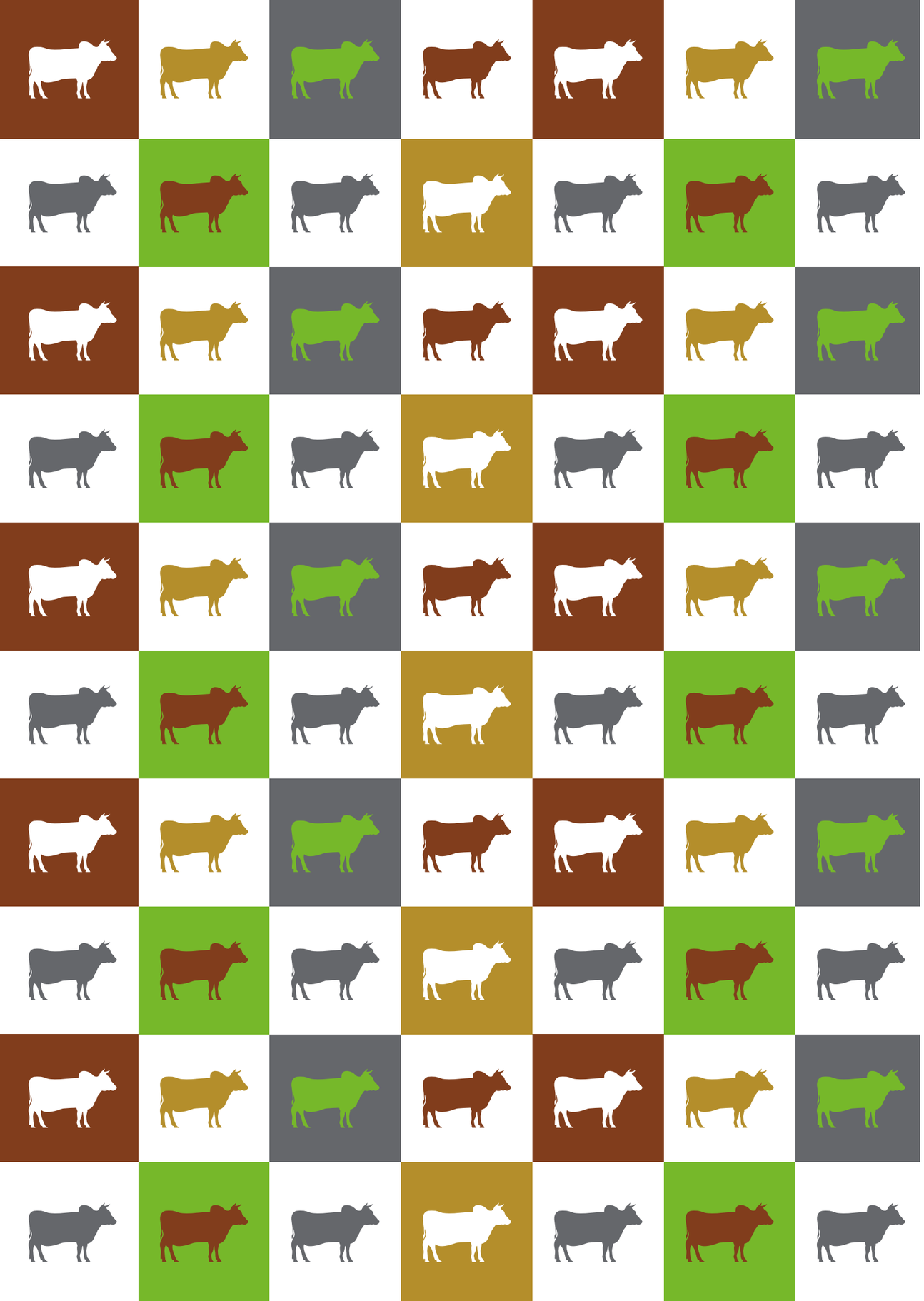

MINISTÉRIO PÚBLICO FEDERAL
4ª CÂMARA DE COORDENAÇÃO E REVISÃO
- Meio Ambiente e Patrimônio Cultural -

PROTOCOLO DE MONITORAMENTO DE FORNECEDORES DE GADO DA AMAZÔNIA
VERSÃO 1.1

Brasília, 22 de novembro de 2021

MINISTÉRIO PÚBLICO FEDERAL

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Revision History

Review no.	Date	Description of changes
01	October 14, 2021	a. Criterion 2.1. Illegal deforestation on page 17 is reworded as follows: The analysis must be carried out in a geomonitoring system that includes updated georeferenced maps of the supplier farms (official CAR base) and the official bases of Prodes Amazônia/Inpe and in which the overlap with deforestation polygons can be verified in the images. This service can be performed by the company itself or by a specialized third party. Consider for the monitoring only deforestation polygons with an area ≥ 6.25 ha of Prodes Amazônia/Inpe and subsequent to 1/Aug/2008. b. Addition to Technical Note no. 4, which gives instructions about the application of Criterion 2.1. c. The database for criterion 2.7 Slave Labour on page 25 is amended to read as follows: **Database** List of the Labour Inspection Department of the Labour and Welfare Ministry.

The amendments and additions will take effect from the date of publication of the document.
This document is now circulated as version 1.1.

Also, with regard to the technical rules for overlaps, it is important to highlight the temporal reference of the PRODES/INPE databases, in which a correction is necessary for companies to eliminate purchases with deforestation subsequent to 1/Aug/2008.

MONITORING PROTOCOL FOR **CATTLE** SUPPLIERS IN THE AMAZON

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[Translator's Note: Most abbreviations and acronyms in this document have been maintained in Portuguese. To see them written in full in Portuguese, please go to the Acronyms and Abbreviations section at the end of this document.]

1.

CONTEXT

1.1 PUBLIC COMMITMENTS MADE BY COMPANIES

After Greenpeace's report titled *Slaughtering the Amazon* was published in 2009, large Brazilian meatpackers (JBS, Marfrig and Minerva) made a commitment to monitor their cattle purchases in the Amazon biome based on the principles of the **Beef Public Commitment**. In practice, these companies agreed not to purchase products of bovine origin from farms involved in: deforestation after October 2009, invasion of Indigenous Land and Environmental Conservation Units; embargoed by the Brazilian Government's Environmental Protection Agency (IBAMA) or that use slave labor. They also agreed to reject land-grabbing and violence in the fields by implementing a tracking system capable of monitoring, verifying and reporting occurrences.

In the same year, the Public Prosecutor's Office of Pará state broadened its actions on the purchase of cattle from areas with socio-environmental and ownership irregularities and set up **Terms of Adjustment of Conduct** (TAC) - known as *TAC da Pecuária* (Cattle Sector TAC) with meatpackers that operate in the region. As of 2010, several companies based in other states in the Legal Amazon signed the TAC, an act that became known as *TAC da Carne Legal* (BEEF TAC), a name that derived from the *Carne Legal* campaign of the Public Prosecutor's Office launched in 2009.

Retailers, represented by the Brazilian Supermarket Association (Abras) and the largest retail chains (Carrefour, Grupo Pão de Açúcar and Walmart, now Grupo Big) also signed the public commitment to eliminate deforestation from their supply chains in 2013. In addition, in 2016, after the publication of the Greenpeace report dubbed *Carne ao Molho Madeira*, these large supermarket chains undertook to monitor their direct suppliers (meatpackers) and develop control tools.

In order to meet these commitments, the main meatpacking and retail groups have over time enhanced their practices and established individual protocols to monitor their cattle suppliers. Due to the continuous learning nature and the lack of technical definitions for the monitoring parameters, the methodologies used in the protocols differ, which makes comparing them difficult. In addition, a significant number of meatpackers with TACs are still unable to monitor their commitments and as such are not included in the monitoring and verification process[1].

It is important to emphasize that not all public information needed to comply with the commitments is structured and made available by governmental inspection entities to enable the implementation of systematic monitoring processes in companies, such as official lists for the reporting of rural violence, information about land property regularization and others

1 In the 2017 audit of 31 signatories of TAC-Pará, 23 plants were audited, 8 plants did not perform the audit and 4 were waived by the Public Prosecutor's Office. The information of the Beef TAC is not publicly available. Source: Presentation of the Audit Result of the Cattle Sector TAC, 2017, accessed on 22/Jan/2020, at: http://www.mpf.mp.br/pa/sala-de-imprensa/documentos/2019/apresentacao_resultados_auditorias_tacs_pecuaria_pa_compras_2017_divulgacao_2019.pdf

(shown in **Appendix IV**). Despite advances in geoprocessing and database technology, the TACs have not been updated in accordance with the guidelines provided by the Public Prosecutor's Office through official letters, which would ensure that the monitoring rules continue aligned with the terms agreed by all the meatpackers.

1.2 PURPOSE OF THE MONITORING PROTOCOL FOR CATTLE SUPPLIERS

The above scenario led to an opportunity to develop a monitoring protocol that meets all existing commitments with the purpose of harmonizing its implementation by the signatories, facilitating the implementation of good practices for monitoring the direct cattle supply chain and increasing transparency to society in an attempt to reduce deforestation in the Amazon region. The target audience of this document are the signatories of the Cattle Sector TAC (Pará), the Beef TAC (Legal Amazon) and the Beef Public Commitment (Amazon biome), in other words, meatpacking and retail companies. It applies, according to the period defined by the Public Prosecutor's Office, to every company in the beef sector that operates within or purchases raw material from the Legal Amazon region. These criteria must be met before any commercial purchase transaction or agreement by a company, its affiliates and subsidiaries can be made. These criteria must not be used to justify future deforestation of any kind in the Legal Amazon, the Amazon biome or any other biome.

The monitoring of direct suppliers is justified for every company that buys cattle for slaughter and that has a direct trade relationship with the rancher or the individual who owns the herd. Other links in the value chain, such as retail companies, must monitor their supply chain through tracking and audit programs that meet corporate policies for the purchase of raw materials and/or products from their direct suppliers, in this case slaughterhouses, meatpackers and the food industry, so as to promote and strengthen the use of the **Monitoring Protocol for Cattle Suppliers in the Amazon** throughout the industry.

The plan is for this document to encourage signatories who are not carrying out annual monitoring and checks through an independent audit to be able to incorporate the necessary guidelines to effectively implement or adjust processes in their companies and, therefore, comply with the commitments. It is hoped that companies in the cattle supplier chain that are not signatories will feel encouraged to adhere to the commitments. In addition to adhesion for legal purposes, the companies are given the opportunity to add value to their brand and products and ultimately generate guarantees to access more discerning local and foreign consumer markets. In terms of the sector, adhesion to this protocol will improve the image of agribusiness and meets the requirements of banks and financiers when it comes to the offer of better rates, among other benefits.

PROFILE OF CATTLE SECTOR IN BRAZIL[2]

Brazil is one of the world's largest beef producers as a result of decades of investment in technology, which has raised the quality of the Brazilian product and productivity by 176% from 1990 to 2018, reaching 4.5 *arrobas*/ha/year [the unit of measure, *arroba*, equals to 15 kilos]. In 2018, the growth in the number of slaughterhouses and beef producers occurred at the same time as the 1.6% drop in pasture area to 162.19 million hectares, with an estimated herd of 214.69 million heads of cattle. In the same year, the country was ranked the world's largest exporter of beef, with 2.2 million TEC[3] (Tons of Carcass Weight Equivalent), having slaughtered over 44.23 million heads of cattle. Approximately 80% of the beef consumed by Brazilians is produced in the country itself, which has a market that consumes 42.12 kg/inhabitant/year. Beef exports currently represent 3.5% of Brazil's exports and accounts for sales of USD 6.57 billion, 8.7% of the Gross Domestic Product (GDP).

1.3 ABOUT THE MONITORING PROTOCOL FOR CATTLE SUPPLIERS

The **Monitoring Protocol for Cattle Suppliers in the Amazon** is part of a comprehensive Monitoring, Reporting and Verification (MRV) system. Together with this protocol, the **Audit Protocol to the Monitoring of Cattle Suppliers in the Amazon** and an **Audit Report Template** will be published so the signatories can be audited to show their progress in meeting the commitments, and a template of a **Public Summary of the Audit Report** will be made available so the results can be voluntarily reported to stakeholders with the purpose of ensuring transparency.

2 Beef REPORT Profile of Cattle Sector in Brazil, ABIEC 2019. Accessed on 23/Jan/2020: http://www.abiec.com.br/controle/uploads/arquivos/sumario2019portugues.pdf

3 Tons of carcass equivalent. Includes beef and buffalo meat.

Methodology and analysis of cattle commitments
The following documents were used as a reference for cattle commitments in the Amazon region:

- Term for Adjustment of Conduct of Pará State (2009)[4];
  - > Official Letter from the Public Prosecutor's Office of Pará State (05/2018) - sent by the Public Prosecutor's Office to the signatory companies - provides instruction on the 2018 audit process and sets out new rules for the monitoring of suppliers[5];
- Term of Adjustment of Conduct of Legal Amazon (2010)[6];
  - > Official Letter from the Public Prosecutor's Office of Mato Grosso State (03/2017) - sent by the Public Prosecutor's Office to signatory companies - defines the implementation of criteria for the monitoring of suppliers in response to the difficulties and suggestions presented by the meatpackers in a meeting with the Public Prosecutor's Office[7];
- Beef Public Commitment - Minimum criteria for operations with cattle and bovine products on an industrial scale in the Amazon biome (2009)[8];
- Proposal for harmonized geomonitoring protocol of meatpackers (2019)[9].

All commitment requirements were assessed and a comparison table was drawn up to highlight the main differences. This comparison was used as the basis for the criteria contained in this Protocol and in the List of Compliance Limitations. In order to consider the evolution of geomonitoring technologies, public information systems and the practices of the signatories, it is recommended for this Monitoring Protocol to be periodically reviewed after an ongoing improvement assessment with the stakeholders.

NOTE: Process flowcharts that guide the implementation of the monitoring criteria of suppliers and the decision-making process of the meatpackers in their cattle purchases are provided throughout this Monitoring Protocol. The steps for the analysis to block or unblock a property or to purchase cattle may vary depending on the processes and systems established by the company but they cannot interfere with the end result, i.e., lead the meatpacker to make a purchase with socio-environmental irregularities. For example, a meatpacker can make a daily check of the full records of its cattle suppliers to crosscheck the information with the Slave Labor Black List so the purchase can only be made with suppliers who are considered compliant. On the other hand, another meatpacker may check if this supplier is included in the Slave Labor Black List every time a purchase is made without having to check the full record. These are different approaches to internal processes but they must comply with the criteria established.

4 Legal commitment that, if not complied with, authorizes the Public Prosecutor's Office to enforce sanctions without the need for judicial intervention. Signed between the Public Prosecutor's Office of Pará State and meatpackers operating in the region. Establishes the socio-environmental criteria that the companies must comply with.

5 This official letter instructs the company on the 2018 audit, defines parameters for geospatial monitoring, use of Amazônia Protege, CAR, GTAs, embargo polygons of IBAMA, among other topics.

6 Legal commitment that, if not complied with, authorizes the Public Prosecutor's Office to enforce sanctions without the need for judicial intervention. Agreed by the Public Prosecutor's Office and meatpackers that operate in the Legal Amazon and that sets forth the socio-environmental criteria that companies must comply with.

7 This official letter addresses issues raised by the TAC signatories in Mato Grosso state about monitoring and data usage of the Rural Property Certificate (CCIR), Rural Environmental Registry (CAR), Single Environmental License (LAU) and Provisional Operating Permit (APF), state embargoes, Animal Transit Guide (GTA), issue and reporting of lists to the Public Prosecutor's Office and the consumer, and other topics.

8 Commitment made by Greenpeace, JBS, Marfrig and Minerva. Establishes the socio-environmental criteria that the companies must comply with.

2.

PROTOCOL CRITERIA

to Monitor Cattle Suppliers of the Amazon for compliance of TACs

SUMMARY TABLE

The Monitoring Protocol is structured on 11 criteria for TAC compliance, five of which can be monitored by geospatial analysis, two through public list analysis, three through documentary analysis and one via analysis of supplier productivity, as shown in this chapter. In order to meet the Beef Public Commitment, all these criteria are also mandatory, however, there is additional criteria for geomonitoring and zero deforestation. A summary is shown below of the TAC criteria and compliance parameters of supplier properties (compliant/non-compliant). Details of the analysis of these criteria are shown below, including the information sources and databases that will be used, the rules for blocking and unblocking supplier farms and the technical rules for geomonitoring. The links to access the information sources and databases for monitoring the criteria are included in Appendix VI.

CRITERIA FOR MONITORING THROUGH GEOSPATIAL ANALYSIS

Criteria: Illegal Deforestation

This monitoring considers only overlaps with deforestation polygons ≥ 6.25 ha of the Prodes Amazônia/Inpe[10] System and later than 01/Aug/2008.

COMPLIANT

The georeferenced map of the property, based on CAR, does not overlap with deforestation polygons on date cattle was purchased.

NON-COMPLIANT

The georeferenced map of the property, based on CAR, overlaps the deforestation polygon entirely or a fraction ≥ 6.25 ha on date cattle purchase, as detailed in Appendix 1 - Technical Note 1.

Criteria: Indigenous Land

Overlap with Indigenous Land in a "declared" situation or more advanced stage of the demarcation process.

COMPLIANT

The georeferenced map of the property, based on CAR, does not overlap with Indigenous Land on date cattle purchase.

NON-COMPLIANT

The georeferenced map of the property, based on CAR, shows an overlap with Indigenous Land on date cattle purchase, that exceeds the technical rule established according to property size (less than 100 to more than 3,000 hectares) and different levels of overlap of the property with the Protected Area (2% to 10%), as detailed in Appendix 1 - Technical Note 2.

Criteria: Protected Areas

Overlap with PA on mapping bases of relevant public agencies.

COMPLIANT

The georeferenced map of the property, based on CAR, does not overlap with IL on date cattle was purchased. The georeferenced map of the property, based on CAR, does not overlap with CU on date cattle purchase.

NON-COMPLIANT

The georeferenced map of the property, based on CAR, shows an overlap with Conservation Units (CU) on date cattle purchase, that exceeds the technical rule established according to property size (less than 100 to more than 3,000 hectares) and different levels of overlap of the property with the Protected Area (2% to 10%), as detailed in Appendix 1 - Technical Note 2.

Criteria: Ibama Vetor Environmental embargo (Ibama)

This monitoring considers only polygons of environmental embargo due to deforestation issued by Ibama [Vector]. This does not include: (i) "standard polygons" based on a single point (geographic coordinate); (ii) polygons that have a "suspended" or "canceled" status.

COMPLIANT

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

NON-COMPLIANT

Georeferenced map of the property, based on CAR, overlaps with an environmental embargo polygon on date cattle purchase[11].

Criteria: Changes to Boundaries in the Rural Environmental Registry (CAR)

Annual update of the suppliers' database, in accordance with CAR base. Update within 30 days after the release of the Prodes deforestation rate (Estimate - released in November of each year).

COMPLIANT

The georeferenced map of the property has no boundary change in the updated CAR base.

NON-COMPLIANT

The georeferenced map of the property has boundary changes in the updated CAR base.

10 According to Prodes/Inpe methodology. See Appendix 1 - Technical note 1.

11 In the case of overlap of two or more properties: polygon overlap ≥ 6.25 ha.

CRITERIA FOR MONITORING USING OFFICIAL PUBLIC LIST CHECKS

Criteria: Environmental embargo Ibama and LDI-Semas/PA

Corporate (CNPJ) or individual (CPF) taxpayers' registry number in Ibama Lists or Semas/PA LDI List. Consider only environmental embargo due to deforestation. Consider owner and tenant/partner in analysis.

COMPLIANT

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

NON-COMPLIANT

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

Criteria: Slave Labor

Corporate (CNPJ) or individual (CPF) taxpayers' registry number of producers, suppliers and properties in the Slave Labor Black List. Consider all farms linked to the same CNPJ/CPF taxpayer registry ID.

COMPLIANT

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

NON-COMPLIANT

Corporate (CNPJ) or individual (CPF) taxpayers' registry number of owner or tenant/partner is included in the Slave Labor Black List on date cattle purchase.

CRITERIA FOR MONITORING SUPPLIER PRODUCER AND/OR PROPERTY DOCUMENTS

Criteria: CAR (Rural Environmental Registry)

CAR protocol for properties of direct suppliers.

COMPLIANT

Property with presentation of CAR on date cattle purchase.

NON-COMPLIANT

Property without presentation of CAR on date cattle purchase.

Criteria: LAR (Rural Environmental License)

LAR or Application Protocol of direct supply producers of property ≥ 3,000 ha located in Pará state.

COMPLIANT

Property with presentation of current LAR or Protocol on date cattle purchase.

NON-COMPLIANT

Property without presentation of current LAR or Protocol or presentation of outdated documents on date cattle purchase.

Criteria: GTA (Animal Transit Guide)

Registration of GTAs of supplier properties.

COMPLIANT

Landing of animals with GTA from property of origin.

NON-COMPLIANT

Landing of animals without GTA from property of origin.

CRITERIA FOR MONITORING USING ANALYSIS OF PROPERTY PRODUCTIVITY

Criteria: Productivity

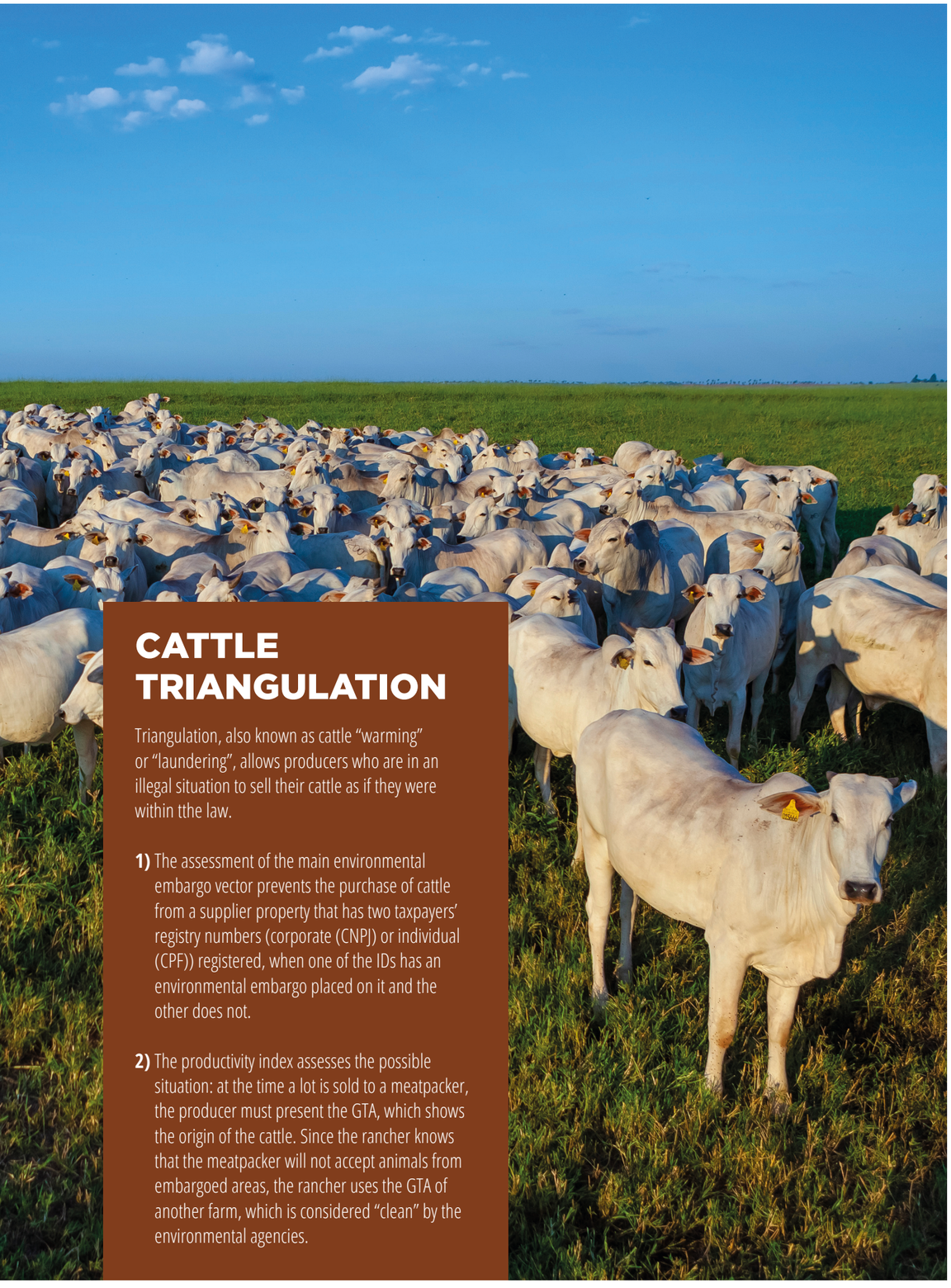
Maximum productivity index of 3 heads/ha/year per supplier property sold in the tax year. Consider the area of alternative use (consolidated use for production) stated in the current CAR and, when such information is not available, estimate the percentage of consolidated area based on the Forest Code of the total area stated in the CAR.

COMPLIANT

Property with index below the maximum set on date cattle purchase.

NON-COMPLIANT

Property with index higher than the maximum set on date cattle purchase, as detailed in Appendix 1 - Technical Note 3.



CATTLE TRIANGULATION

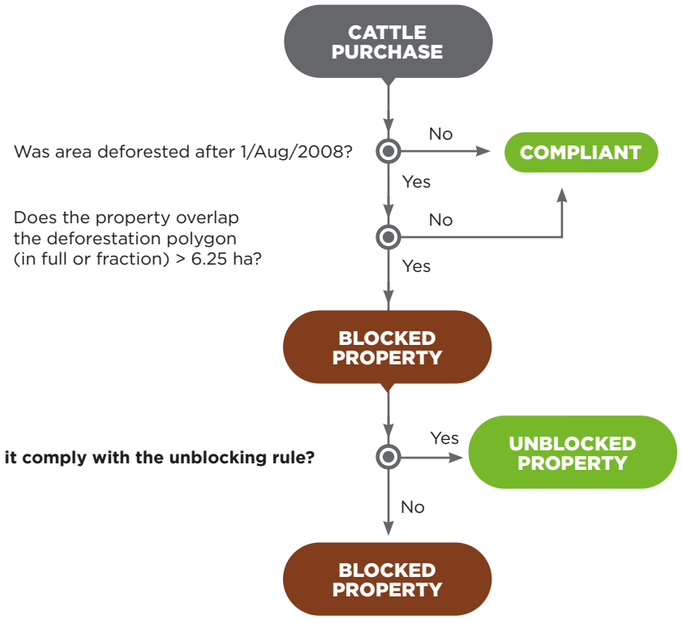
Triangulation, also known as cattle “warming” or “laundering”, allows producers who are in an illegal situation to sell their cattle as if they were within tthe law.

1) The assessment of the main environmental embargo vector prevents the purchase of cattle from a supplier property that has two taxpayers’ registry numbers (corporate (CNPJ) or individual (CPF)) registered, when one of the IDs has an environmental embargo placed on it and the other does not.

2) The productivity index assesses the possible situation: at the time a lot is sold to a meatpacker, the producer must present the GTA, which shows the origin of the cattle. Since the rancher knows that the meatpacker will not accept animals from embargoed areas, the rancher uses the GTA of another farm, which is considered “clean” by the environmental agencies.

2.1 ILLEGAL DEFORESTATION

The analysis must be carried out in a geomonitoring system that includes updated georeferenced maps of the supplier farms (official base of CAR) and the official bases of Prodes Amazônia/Inpe and in which the overlap with deforestation polygons can be verified in the images. This service can be performed by the company itself or by a specialized third party. Consider for the monitoring only deforestation polygons with an area ≥ 6.25 ha of Prodes Amazônia/Inpe and subsequent to 1/Aug/2008.



Database

Prodes Amazônia/Inpe System.

Rule for properies analysis

- **Compliant**: the georeferenced map of the property, based on CAR, does not overlap deforestation polygons on date cattle purchase.
- **Non-compliant**: the georeferenced map of the property, based on CAR, overlaps deforestation polygons on date cattle purchase.

See Appendix 1 - Technical notes 1 and 4.

Rule for unblocking non-compliant properties
At least one of the rules below must be followed:

1. The property has a Permit to Suppress Native Vegetation (ASV) or a Deforestation Permit (AD) issued by the relevant state agency and dated prior to the occurrence of Prodes Amazônia;

2. Confirm the existence of false-positive deforestation through geospatial multitemporal analysis (see side box);
   > Companies must publicly offer a list of suppliers for auditing purposes.

3. Submit a TAC or a Term of Commitment with the Public Prosecutor's Office or a Technical Report[12], or adhere to the Environmental Regularization Program (PRA) or the Recovery Plan for Degraded Areas (PRAD), in accordance with the law in effect and meet the following requirements:
   - **a.** Not use the deforested areas for productive purposes after August 1, 2008;
   - **b.** Submit an annual Technical Monitoring Report for the implementation of an environmental regularization project (see table below);
     > Companies must publicly offer a list of suppliers for auditing purposes, as well as technical reports, containing the relevant records for reparation of environmental damage to the property.
   - **c.** Give transparency to property data and documents that prove the annual recovery of the forest in these areas;
   - **d.** Civil indemnity of 5% on the amount provided for in Article 43 of Presidential Decree no. 6514/2008 for deforestation until 2016 and 10% for deforestation between 2016 and 2018. After 2018, the full amount must be considered.

INPE'S AMAZON PRODES ANALYSIS AND GEOSPATIAL MULTITEMPORAL ANALYSIS

Prodes Amazônia data is available in two publications: **1) estimate 2) consolidated.** The publication of the estimate takes place at the end of the current year (example: the 2019 Prodes estimate was published on 11/2019). In turn, the consolidated data is published in the first half of the following year (example: the 2018 consolidated Prodes was published in June 2019). Prodes does not differentiate between legal or illegal deforestation. Prodes may also contain errors in the deforestation analysis by flagging deforestation polygons based on rocky outcrops, dry riverbeds or pasture management. For these reasons, issuing clearance for farms that have been blocked for overlaps with Prodes can be reevaluated in multitemporal analysis, if the polygon has been overlapped. There are also situations in which the area flagged by Prodes is identified as having been anthropized before 2008. In the multitemporal analysis, the deforestation analysis must be done in the georeferencing system, comparing the farm maps and satellite images with dates from previous and subsequent years (when available) of Prodes detection. This service can be rendered by the company itself or by a specialized third party company (in which case the Technical Responsibility Note - ART) is mandatory. If deforestation has not been detected, a false-positive is then supposed, which means that the polygon was generated with an error and the purchase may be considered "compliant". If the deforestation be confirmed, the property should be considered "non-compliant" until the appropriate documents have been submitted to unblock it.

Environmental regularization may be carried out through restoration or recovery (by restructuring, planting or natural regeneration of native species) of the deforested area, with the guidance of expert technicians.

- **Restoration:** restore an ecosystem or a degraded woodland population to as close as possible to the original state.
- **Recovery:** Documentation issued electronically by a geomonitoring system approved by the Public Prosecutor's Office.

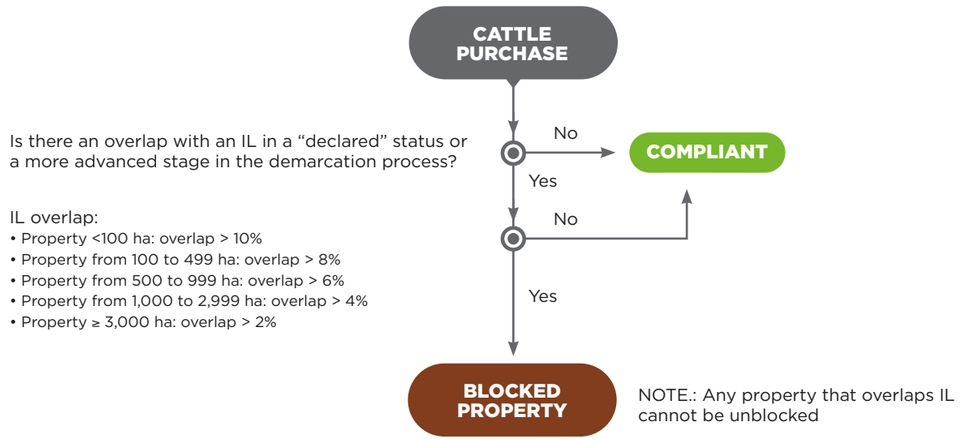
Documentation issued electronically by a geomonitoring system approved by the Public Prosecutor's Office.

2.2 INDIGENOUS LAND

The analysis must be carried out in a geomonitoring system that includes the updated georeferenced maps of the supplier farms (official base of CAR) and the official bases of the National Indigenous Peoples' Foundation (Funai) and in which the overlap with Indigenous Land can be verified in the images. This service can be rendered 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 "declared" or more advanced demarcation phase[13], as detailed in the table below:

ACCORDING TO FUNAI[14], THE DEMARCATION PROCESS OF INDIGENOUS LAND FOLLOWS THE STAGES BELOW:

1. **Under study:** Studies are conducted to support the identification and delimitation of indigenous land.
2. **Delimited:** Lands that had their studies approved by the Board of Funai, with their conclusion published in the Federal and State Official Journals and that are in the administrative adversary procedure phase or under analysis by the Public Prosecutor's Office for a decision regarding the issuance of a Declaratory Ordinance of traditional indigenous possession.
3. **Declared:** Land that has received the Declaratory Ordinance by the Justice Minister and is authorized to be physically demarcated, with the materialization of landmarks and georeferencing.
4. **Approved:** Land that has its boundaries materialized and georeferenced and whose administrative demarcation was approved by presidential decree.
5. **Regularized:** Land that, after the approval decree, has been registered in a notary office in the name of the Federal Government and in the Federal Heritage Department.
6. **Banned:** Banned areas that are restricted for use by and entry of third parties for the protection of isolated indigenous tribes.



13 Fonte: http://mapas2.funai.gov.br/portal_mapas/pdf/terra_indigena.pdf, accessed on 12/Dec/19).

14 http://www.funai.gov.br/index.php/indios-no-brasil/terras-indigenas

Database
Map base of Funai.

Rule for properties analysis
- **Compliant:** the georeferenced map of the property, based on CAR, does not overlap with IL on date cattle purchase
- **Non-compliant:** the georeferenced map of the property, based on CAR, does overlap IL on date cattle purchase, notably:

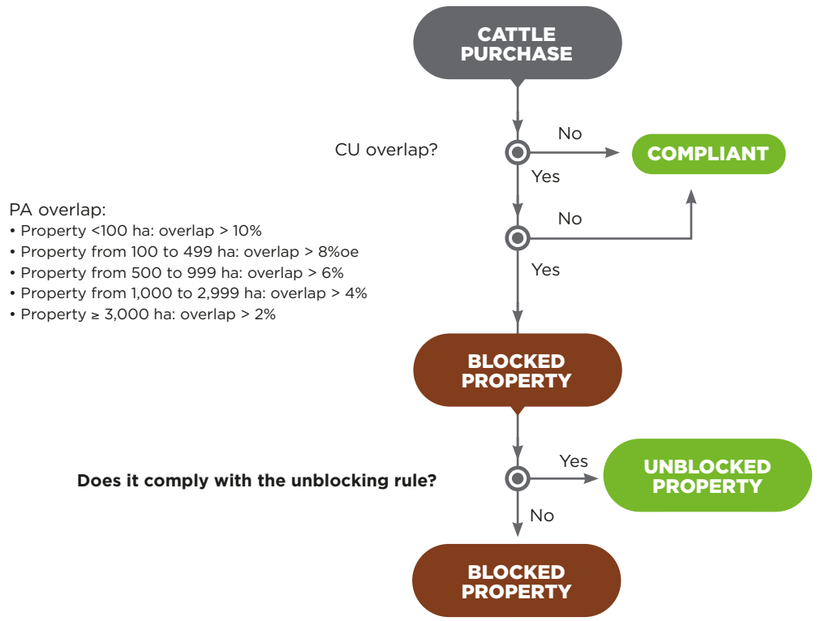
  - Property <100 ha: property overlaps IL > 10% of the total property area.
  - Property from 100 to 499 ha: property overlaps IL > 8% of the total property area.
  - Property from 500 to 999 ha: property overlaps IL > 6% of the total property area.
  - Property from 1,000 to 2,999 ha: property overlaps IL > 4% of the total property area.
  - Property ≥ 3,000 ha: property overlaps IL > 2% of the total property area.

Details of overlap margins, see Appendix I - Technical Note 2

Rule for unblocking non-compliant properties
Any property that overlaps IL cannot be unblocked in this case, the owner needs to remedy the issue with Funai and other relevant entities.

2.3 PROTECTED AREAS

The checks must be carried out in a system that includes the updated georeferenced maps of the farms and the maps of the official map bases of the relevant public entities (federal, state or municipal), and in which the overlap with PAs can be verified in the images. This service can be performed by the company itself or by a specialized third party.



Database
Map base of federal public agencies (MMA, Sisnama, ICMBio, Conama).
Map base of state public agencies (Ideflor-Bio-PA, Intermat-MT, Sedam-RO, Sema-AM).

Rule for properties analysis
- **Compliant:** the georeferenced map of the property, based on CAR, does not overlap with the PA on date cattle purchase.
- **Non-compliant:** the georeferenced map of the property, based on CAR, does overlap the PA on date cattle purchase, notably:

  - Propriedade < 100 ha: sobreposição da propriedade na UC > 10% da área total da propriedade;
  - Property < 100 ha: property overlaps PA > 10% of the total property area.
  - Property from 100 to 499 ha: property overlaps PA > 8% of the total property area.
  - Property from 500 to 999 ha: property overlaps PA > 6% of the total property area.
  - Property from 1,000 to 2,999 ha: property overlaps PA > 4% of the total property area.
  - Property ≥ 3,000 ha: property overlaps PA > 2% of the total property area.

Details of overlap margins, see Appendix I - Technical Note 2

Rule for unblocking non-compliant properties
At least one of the rules below must be met:

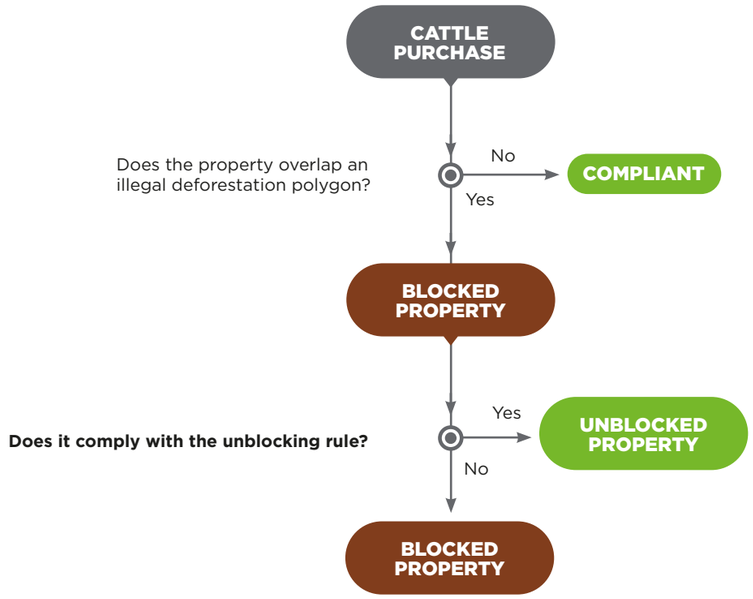
- **Expropriation of rural property and indemnity for ownership** – When there is an official[15] document issued by the Chico Mendes Institute for Biodiversity Conservation (ICMBio) or a relevant entity allowing the producer to provisionally own the property located in the CU, where there has not been proper land regularization and provided that the Public Prosecutor's Office does not oppose it. There is no unblock for those who entered the area after the creation of the PA.

- **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 the relevant entity.

2.4 ENVIRONMENTAL EMBARGO VECTOR (IBAMA)

The checks must be carried out in a geomonitoring system that includes the updated georeferenced maps of the farms (official base of CAR) and the official bases of Ibama that contain geographical information [Vector] and in which the overlap with environmental embargo polygons due to deforestation can be verified in the images. This service can be rendered 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: the environmental embargo is applicable to polygons on the property, i.e., in specific areas with detected deforestation. However, the aptitude analysis for the purchase and blocking/unblocking must include the entire area of the cattle supplier property, and not only the areas within embargo polygons.



Database
Ibama and Siscom website.

Rule for properties analysis
- **Compliant:** the georeferenced map of the property, based on CAR, does not overlap with the environmental embargo polygon on date cattle purchase.
- **Non-compliant:** the georeferenced map of the property, based on CAR, does not overlap with the environmental embargo polygon on date cattle purchase[16].

Rule for unblocking non-compliant properties[17]
When the property **is not** blocked by the criteria of illegal deforestation (criteria 1 - Prodes Amazônia/Inpe):

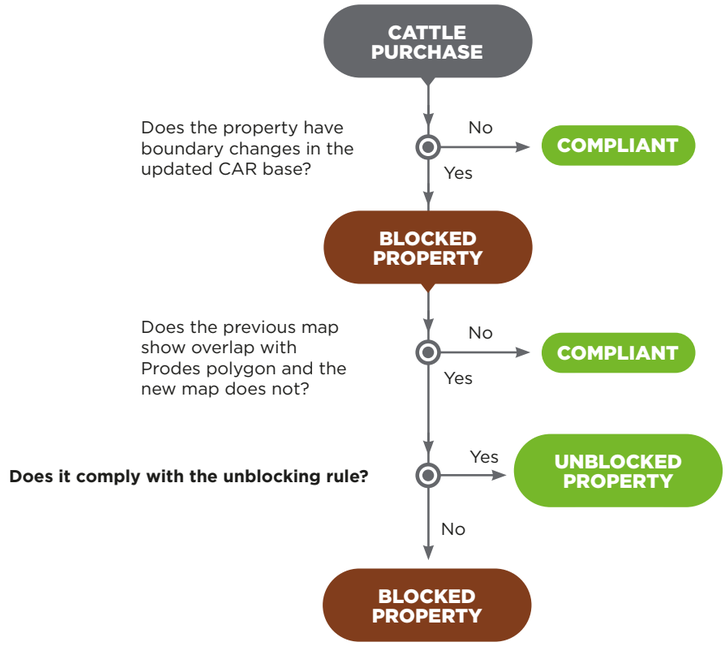
1. Official letter from the entity that established the embargo clarifying that the embargoed property is not that one;
2. Request the notice of infringement relating to the embargo from the producer and check if the supplier property is not the same as the subject of the embargo;
3. When there is proof of compliance with the embargo under the Term of Reference for the Environmental Embargo Compliance Statement (Official Letter 144/2019/Official Letter/PR/AM - template in Appendix Ii) or a Technical Report is issued electronically by a geomonitoring system approved by the Public Prosecutor's Office*.

* Element to help companies restrict cattle triangulation/laundering in properties with embargoed areas.

When the property **is** blocked under the criteria of illegal deforestation (criteria 1 - Prodes Amazônia/Inpe): follow the rule of the Illegal Deforestation criteria in this Protocol to unblock it.

2.5 CHANGES TO CAR MAP BOUNDARIES

The checks must be made in a geomonitoring system which includes the georeferenced maps of the farms (official CAR base). The company must update the database with the maps of the cattle supplier farms annually, in accordance with the available CAR base. The update must be made within 30 days after the announcement of the deforestation rate by Prodes Amazônia/Inpe (estimate - released in November of each year). This service can be performed by the company itself or by a specialized third party.



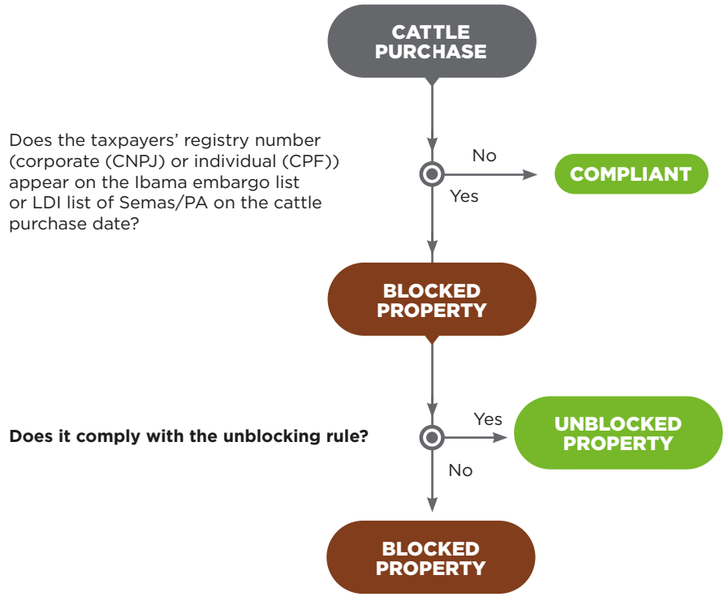
Database
Sicar, Sicar/PA,
Simcar/MT and SNCR.

Rule for properties analysis
- **Compliant:** the georeferenced map of the property has no boundary changes in the updated CAR base.
- **Non-compliant:** the georeferenced map of the property has boundary changes in the updated CAR base.

Rule for unblocking non-compliant properties
1. When the previous map and the new map have no overlaps with Prodes polygons.
2. If the previous map overlaps with a Prodes 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 or CCIR or the National Rural Registry System (SNCR).

2.6 ENVIRONMENTAL EMBARGO (IBAMA AND SEMAS/PA)

The analysis is made by crosschecking the taxpayers' registry number (corporate (CNPJ) or individual (CPF)) of the farm owner, who sold the cattle, with the Ibama Lists or the Illegal Deforestation List (LDI) of Semas/PA for environmental embargo due to deforestation on date cattle was purchased (i.e., the date stated in the contract or in the company's electronic purchase order system). The block is restricted only to properties with environmental embargo. 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.



Database

Ibama website.
Semas/PA website (LDI List).

Rule for properties analysis

- **Compliant:** taxpayers' registry number (corporate (CNPJ) or individual (CPF)) of owner or tenant/partner is not included in the lists on date cattle purchase.
- **Non-compliant:** taxpayers' registry number (corporate (CNPJ) or individual (CPF)) of owner or tenant/partner is included in the lists on date cattle purchase.

Rule for unblocking non-compliant properties

At least one of the rules below must be met to unblock the supplier or property:

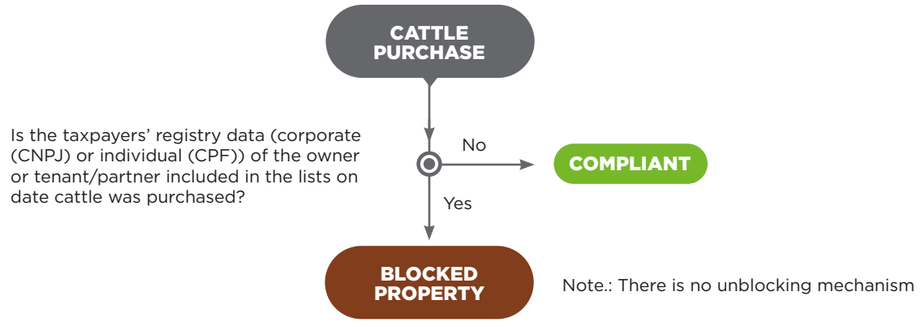
- Official letter from the entity that establishes the embargo clarifying that the embargoed property is not that one.
- For taxpayers' registry number (corporate (CNPJ) or individual (CPF)) included in the lists, and which are linked to more than one property, check if the supplier property does not 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;
- When there is proof of compliance with the embargo under the Term of Reference for the Environmental Embargo Compliance Statement (Official Letter no. 144/2019/Official Letter/PR/AM) or a Technical Report issued electronically by a geomonitoring system approved by the Public Prosecutor's Office**.

* Employed only for Ibama environmental embargo
** Element to help companies restrict cattle triangulation/laundering in properties with embargoed areas

Note: for the CNPJ check, the first 8 numerals must be used to identify all records associated with that legal entity (head office and branches).

2.7 SLAVE LABOR

This analysis is done by crosschecking the taxpayers' registry data (corporate (CNPJ) or individual (CPF)) of the owner of the farm who sold the cattle with the Slave Labor Black List. If the farm is leased, the taxpayers' registry data (corporate (CNPJ) or individual (CPF)) 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.



Database

List of the Labor Inspection Department of the Economy Ministry.

Rule for properties analysis

- **Compliant:** taxpayers' registry number (corporate (CNPJ) or individual (CPF)) of owner or tenant/partner is not included in the Slave Labor Black List on date cattle purchase.
- **Non-compliant:** taxpayers' registry number (corporate (CNPJ) or individual (CPF)) of owner or tenant/partner is included in the Slave Labor Black List on date cattle purchase.

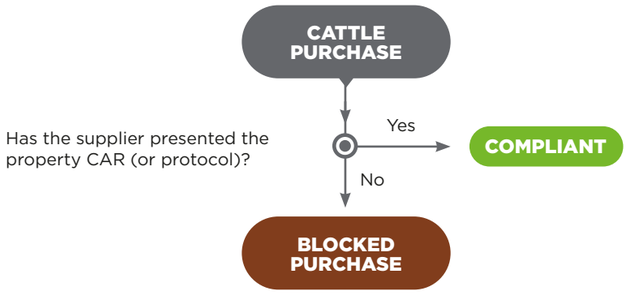
Rule for unblocking non-compliant properties

All farms registered with the taxpayers' registry (corporate (CNPJ) or individual (CPF)) identified in the Slave Labor Black List are blocked 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 Black List.

Note: for the CNPJ check, the first 8 numerals must be used to identify all records associated with that legal entity (head office and branches).

2.8 RURAL ENVIRONMENTAL REGISTRATION (CAR)

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



Unblocking occurs immediately after the presentation of the CAR protocol

Database

Direct producer supplier.
Sicar, Sicar/PA, Simcar/MT and SNCR.

Rule for properties analysis

- **Compliant:** property with presentation of CAR on date cattle purchase.
- **Non-compliant:** property without presentation of CAR on date cattle purchase.

Rule for unblocking non-compliant properties

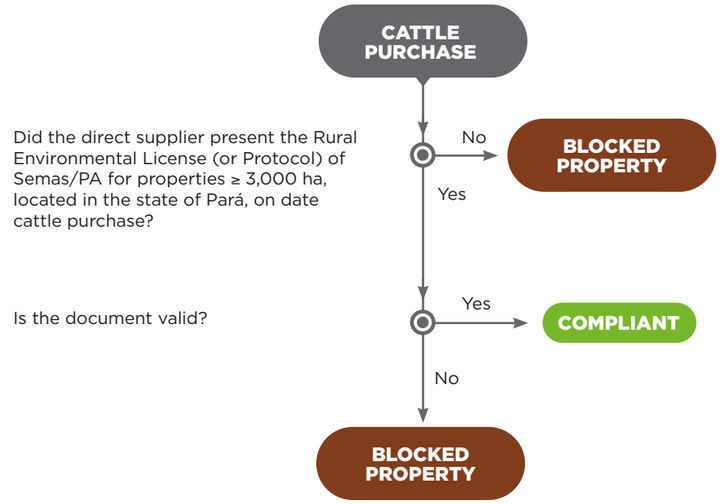
The farm will be unblocked immediately after the presentation of the CAR protocol. It is recommended for the CAR status to be searched on the official websites, notably:

STATUS[18]	DESCRIPTION
Active	The registration of the rural property will be considered "active" after the CAR registration has been completed (i.e., after the ".car" extension file has been sent successfully), while the obligations to update the registered information are being complied with, and after they have been checked, the regularity of the information related to the Permanent Protection Areas (APP), restricted use, Legal Reserve (RL) and remnants of native vegetation must be confirmed.
Pending	The registration of the rural property will be considered "pending" when an incorrect statement is found or in the event of an overlap of the rural property with ILs, CUs, Government Land, prohibited areas, embargoed areas or with other rural properties. The registration will also be considered "pending" when there is a notice of irregularity connected with Areas of Permanent Protection (APPs), restricted use, Legal Reserve (RL), consolidated and with remnants of native vegetation, while the due diligences notified to the registrants are not conducted within the established deadlines or while the information update obligations mentioned in notices have not been complied with.
On hold	The registration of the rural property will be considered "on hold" by judicial decision or administrative decision of the relevant entity with due justification.
Canceled	The registration of the rural property will be considered "canceled" if it is confirmed that the stated information is fully or partly false, misleading or lacking, after non-compliance with the deadlines established in the notifications or by a judicial decision or administrative decision of the relevant entity with due justification.

18 See CAR statement. Sicar. Accessed on 29/Jan/2020.

2.9 RURAL ENVIRONMENTAL LICENSE (LAR) IN THE STATE OF PARÁ

The company must request a LAR or a LAR Application Protocol from direct supplier producers of properties ≥ 3,000 ha located in Pará state. The validity of the documents must be verified in the Semas/PA website.



Unblocking occurs immediately after the presentation of a valid Environmental License or Protocol

Database

Semas/PA system.

Rule for properties analysis

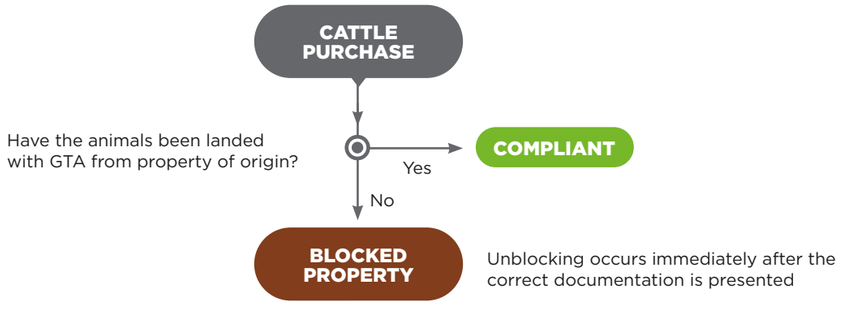
- **Compliant:** property with presentation of valid LAR or Protocol on date cattle purchase.
- **Non-compliant:** property without presentation of LAR or Protocol or presentation of outdated, on date cattle purchase.

Rule for blocking properties

The farm will be unblocked immediately after the presentation of a valid LAR or Protocol. The status of the LAR's Application Protocol must be verified in the official websites.

2.10 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.



Database
Guide accompanying the transport of animals for slaughter.

Rule for properties analysis
- **Compliant:** landing of animals with GTA from property of origin.
- **Non-compliant:** landing of animals without GTA from property of origin.

Rule for blocking properties
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.

2.11 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.

% estimate of the consolidated area based on the Forest Code of the total area stated in the CAR

The maximum percentage of the property area that can be registered as an alternative use area (consolidated) is the difference of the areas of native vegetation (Legal Reserve area, RL and Permanent Preservation Area, APP).

The Legal Reserve area varies according to the biome and the region in question, notably:

I located in the Legal Amazon:
a) 80% (eighty percent) in a property located in the forest area.
b) 35% (thirty-five percent) in a property located in the *cerrado* area.
c) 20% (twenty percent) in a property located in the general fields area.

II located in other regions of the country:
20% (twenty percent) (Art. 12 - Forest Code).

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1. Properties that were deforested in the Amazon between 1989 and 1996 in accordance with the minimum percentage of 50% of Legal Reserve in effect at the time are not required to restore their areas to 80%.

(Legal Reserve Area, accessed 30/Apr/2020, available at: https://www.embrapa.br/codigo-florestal/area-de-reserva-legal-arl)

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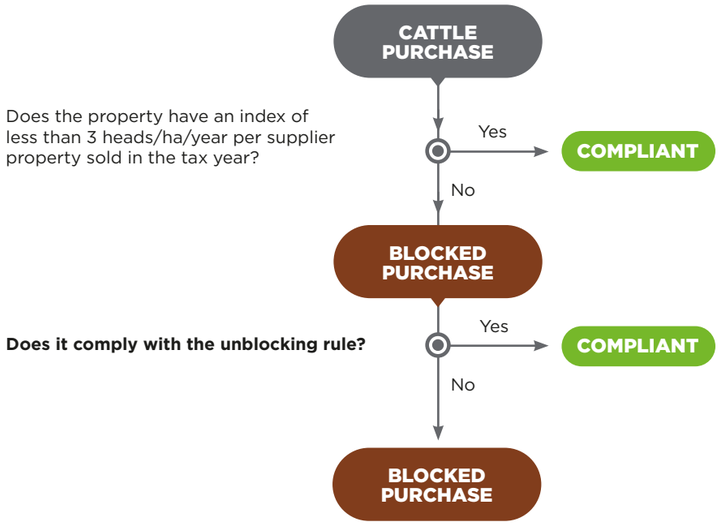
2. States that have more than 65% of the territory occupied by protected areas and indigenous land may reduce the percentage of mandatory reserves from 80% to up to 50%, as per the State Environmental Council. This is also true when the municipality has more than 50% of the area occupied by conservation units and approved indigenous land. For regularization purposes, it is acceptable to reduce the breakdown to up to 50% of the property when indicated by ecological-economic zoning (ZEE) in properties with consolidated rural areas.

(Legal Reserve and the Legal Amazon, accessed on 30/Apr/2020, available at: https://www.senado.gov.br/noticias/Jornal/emdiscussao/codigo-florestal/reserva-legal-protecao-necessaria-ou-intromissao-do-estado/reserva-legal-e-a-amazonia-legal.aspx)



Database
Sicar, Sicar/PA and Simcar/MT.

Rule for properties analysis
- **Compliant:** property with an index of less than 3 heads/ha/tax year per supplier property on date cattle purchase.
- **Non-compliant:** property with an index of more than 3 heads/ha/tax year per supplier property on the date cattle purchase.

See Appendix 1 - Technical note 3

Rule for unblocking non-compliant properties
Presentation of the producer's statement document describing the productive system adopted at the property, including evidence that justifies productivity higher than the index. The personal statement must be submitted prior to any new sale of animals (template in Appendix III). The personal statement is only valid for the tax year.

PROTOCOL CRITERIA

to Monitor Cattle Suppliers in Compliance with Beef Public Commitment

As explained earlier, the Monitoring Protocol is structured with basis on 11 criteria for compliance with the TACs, five of which are monitorable by geospatial analysis, two by analysis of official public lists of government agencies, three through documentary analysis of CAR/LAR/GTA records and one by analyzing the productivity of the supplier farm. All criteria applicable to the TACs are also mandatory for the Beef Public Commitment, in addition to an extra criteria for Zero Deforestation, after October 2009, as shown below.

CRITERIA FOR MONITORING CATTLE SUPPLY CHAIN USING GEOSPATIAL ANALYSIS - COMPLIANCE WITH PUBLIC COMMITMENT

Consider for monitoring purposes only overlaps with deforestation polygons ≥ 6.25 ha of the Prodes Amazônia/Inpe System and later than 05/Oct/2009.

COMPLIANT
The georeferenced map of the property, based on CAR, has no overlap with deforestation polygons on date cattle purchase.

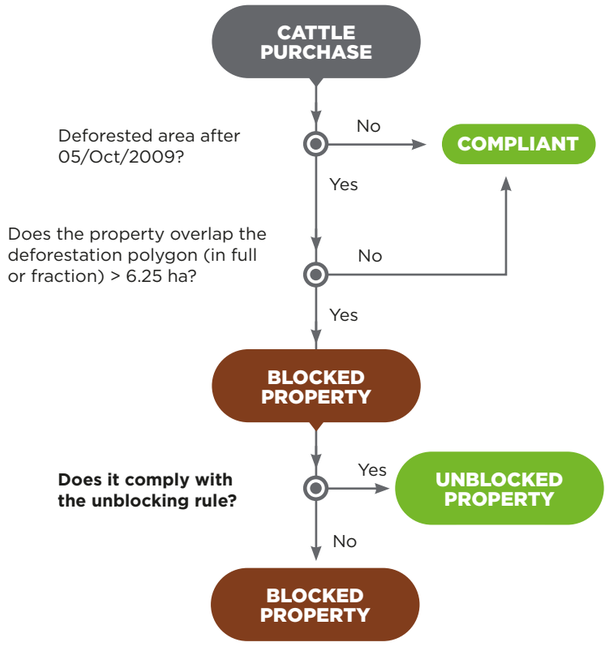
NON-COMPLIANT
The georeferenced map of the property, based on CAR, overlaps the deforestation polygon entirely or a fraction ≥ 6.25 ha on date cattle purchase, as detailed in Appendix 1 - Technical Note 1.

3.1 ZERO DEFORESTATION

The checks must be carried out in a geomonitoring system that includes the updated georeferenced maps of the farms (official base of CAR) and the official maps of Prodes Amazônia/Inpe and in which the overlap with deforestation polygons can be verified in the images. This service can be performed by the company itself or by a specialized third party. For the exclusive compliance of the Beef Public Commitment, consider in the monitoring only deforestation polygons ≥ 6.25 ha of Prodes Amazônia and after 05/Oct/2009[20].

Database
Prodes System

Amazônia /Inpet



Rule for properties analysis

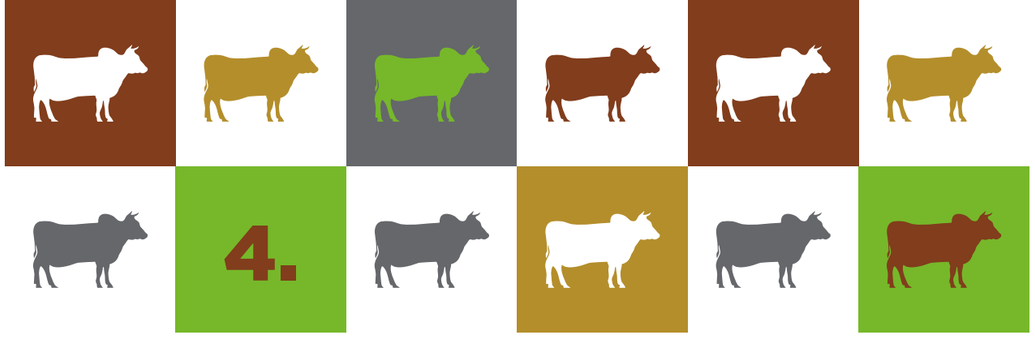
- **Compliant:** the georeferenced map of the property, based on CAR, does not overlap with a deforestation polygon on date cattle purchase.
- **Non-compliant:** the georeferenced map of the property, based on CAR, does not overlap deforestation polygon entirely or a fraction ≥ 6.25 ha on date cattle purchase.

See Appendix 1 - Technical note 1.

Rule for unblocking non-compliant properties

At least one of the rules below must be met:

1. Prove the existence of false-positive deforestation through multitemporal analysis (geospatial);
2. Properties where deforestation is proven to occur in the Amazon biome after the reference date of this document will be excluded from the list of company suppliers and will only be readmitted after proof that the environmental damage has been remedied, a Term of Adjustment of Conduct (TAC) has been signed, and all fines and indemnities applied to such and in accordance with the environmental legislation in force, including the land title, have been paid. (Minimum criteria for transactions with cattle and bovine products on an industrial scale in the Amazon biome, Item 1. Zero deforestation in the supply chain: no new deforestation for cattle will be accepted after October 5, 2009. d. Reparation of environmental damage).



ADDITIONAL RECOMMENDATIONS FOR THE SIGNATORIES OF THE COMMITMENTS

To make the monitoring of cattle ranchers, according to the criteria defined in this Protocol, more effective, we recommend a few good management practices for meatpacking plants. These recommendations may be implemented gradually, depending on the availability of funds and ongoing improvements gained from lessons learned during the monitoring process.

MANAGEMENT SYSTEM

The company can establish an Internal Procedures Manual on the implementation and maintenance of the processes used in its cattle supply chain to monitor the criteria described in this Protocol. It is recommended for these procedures to be written, the employees to be trained periodically and to be checked in a regular internal audit to detect occasional flaws in the monitoring system and ensure the maintenance of the management system.

If the meatpacker hires a geomonitoring company for support, it is important to execute a written agreement and guidelines for the monitoring based on the instructions in this Protocol.

It is also important for the company to store the records of the monitoring results for auditing or transmission purposes, when applicable. The companies must keep auditable records of production lots, related to the property of origin of the cattle and other control elements for a period of five years as specified in the TACs.

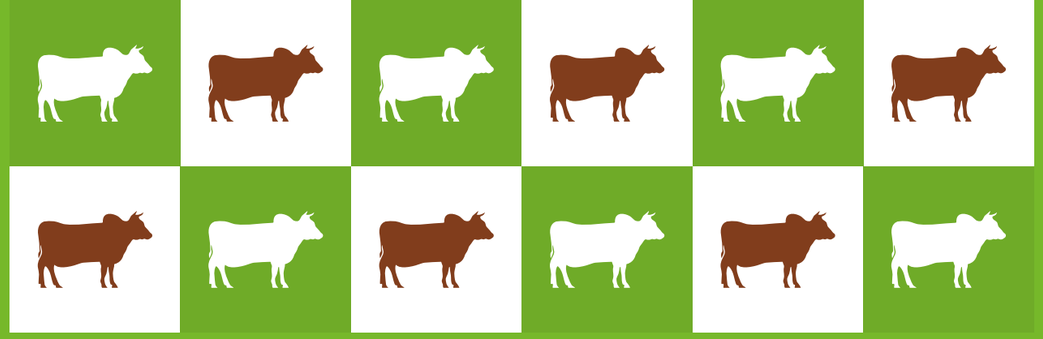
TRANSPARENCY AND COMMUNICATION

As a way of reporting results and increasing transparency for the public, it is recommended for the meatpackers and retailers to post their Cattle Supplier Purchase Policies and the Public Summary Report of the annual Audits on their digital platforms so the entire value chain is engaged in promoting responsible cattle. All disclosures must be in line with the General Data Protection Law[19]. In order to comply with the TACs, it is recommended for the meatpackers to:

- Annually include in the audit the consolidation of the list of suppliers (blocked and unblocked);
- Provide transparency in the audit of data and technical documents that prove the regularization of areas (unblocked by illegal deforestation) on an annual basis;
- Inform consumers online of the origin of the product (identifying the properties and municipalities of origin of the cattle that make up the production lot).

19 THE GENERAL PERSONAL DATA PROTECTION LAW (LGPD), Law 13.709/2018, aims to regulate the treatment of personal data by companies, given that such has gained great importance in the modern economy, since it can be used to make forecasts, analyze consumer profiles, opinions, and other activities. Accessed on: February 6, 2020, available at: https://www.lgpdbrasil.com.br/

APPENDIX



APPENDIX I
Technical notes

Defining the technical geomonitoring rules (overlap) is necessary since different geoprocessing bases are used and they may be associated with different levels of quality and mapping accuracy. These factors may lead to a mapping error that results in displacements of images or other situations that do not correctly reflect the reality in field.

Another need for a technical reference lies in the establishment of the productivity index, with the goals of identifying potential animal movements from irregular and noncompliant areas to compliant properties for the purpose of slaughter sales, and to guide preventive actions to curb this practice.

Technical Note 1: Technical geomonitoring rule - overlap with deforestation polygons

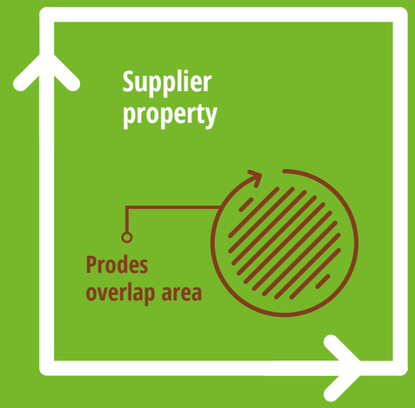
In the case of deforestation polygons in the Prodes Amazônia/ Inpe base, the technical geomonitoring rule aims to mitigate possible distortions caused by mapping errors, mainly when the layer of the Prodes data is misplaced (a situation already encountered by Inpe) and projection errors occur in the georeferencing of properties, in addition to differences between the mapping scales of different databases. As such, the technical geomonitoring rule refers to the overlap of the Prodes polygon on the property, considering the minimum area established by the Prodes methodology, which is 6.25 hectares[20].

For instances where, based on other documents or spatial studies generated by the Public Prosecutor's Office or by a system approved by the Public Prosecutor's Office, deforestation is detected within the limits of the property, even if it falls under the predefined technical rule, the property must be blocked for cattle purchase.

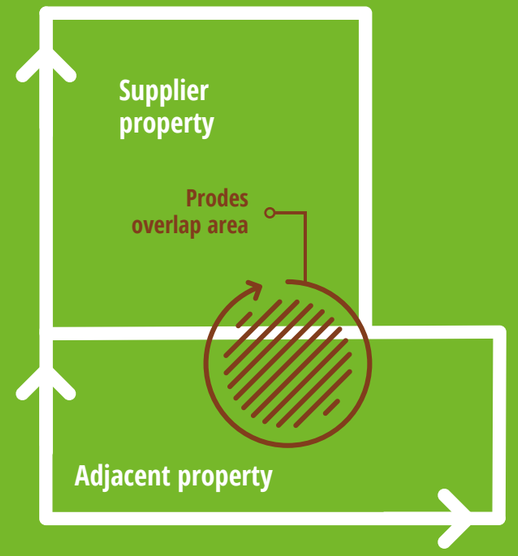
Example of deforestation analysis:

Overlap	Prodes Area (ha)	Prodes Area (ha)	Prodes overlap area on property area (ha)	Status
Full	Indifferent	6,25	total	Non-compliant
	Indifferent	6,24	total	Compliant
Fraction	Indifferent	Indifferent	6,25	Non-compliant
	Indifferent	Indifferent	6,24	Compliant

Full overlap of Prodes deforestation polygon with supplier area



Part overlap of the Prodes deforestation polygon with the supplier area



Technical Note 2: Technical geomonitoring rule - overlap with Protected Areas: Indigenous Land and/or Environmental Conservation Units

In the case of IL and PAs that are delimited by natural boundaries (rivers, lakes, mountains, etc.), artificial boundaries (roads, fences, channels, etc.) or general boundaries (a straight line between two points that are not linked to natural or artificial limits), mapping errors may occur
generating overlaps with rural properties that do not always correspond to the reality of the situation in field. The possibilities of natural or artificial changes to boundaries that demarcate these areas over time, such as changes in a watercourse, must also be considered. These factors may cause a "virtual" overlap in the georeferenced map of the demarcated or protected area and the georeferenced map of a cattle-supplying property and this cannot be construed as an encroachment of the property on the Indigenous Land and Protected Area.

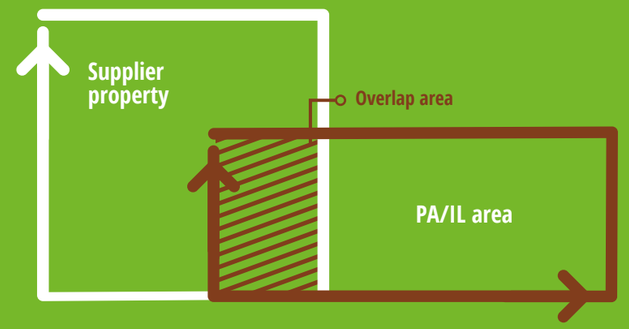
The technical geomonitoring rule takes into account different property sizes (less than 100 to more than 3,000 hectares) and different levels of overlap of the property with the IL or the CU (2% to 10%) in an attempt to mitigate possible mapping errors.

For instances where, based on other documentary or spatial studies, an encroachment has been detected in these areas, even if it falls under the predefined technical rule, the property must be blocked for cattle purchase.

**Indigenous Land: will be considered land that is in the demarcation process phase, in a "declared" situation or in a more advanced stage.*

Example of analysis of overlap with IL or PA:

Property area (ha)	Property area (ha)	PA/IL area	Overlap area (ha)	% of overlap	Status
< 100 ha	20	Indifferent	2,2	11%	Non-compliant
	99	Indifferent	10,9	11%	Non-compliant
	20	Indifferent	2,0	10%	Compliant
	99	Indifferent	9,9	10%	Compliant
Between 100 to 499 ha	100	Indifferent	9	9%	Non-compliant
	499	Indifferent	45	9%	Non-compliant
	100	Indifferent	8	8%	Compliant
	499	Indifferent	40	8%	Compliant
Between 500 to 999 ha	500	Indifferent	35	7%	Non-compliant
	999	Indifferent	70	7%	Non-compliant
	500	Indifferent	30	6%	Compliant
	999	Indifferent	60	6%	Compliant
Between 1,000 to 2,999 ha	1.000	Indifferent	50	5%	Non-compliant
	2.999	Indifferent	150	5%	Non-compliant
	1.000	Indifferent	40	4%	Compliant
	2.999	Indifferent	120	4%	Compliant
≥ 3.000 ha	3.000	Indifferent	90	3%	Non-compliant
	3.000	Indifferent	60	2%	Compliant



Technical Note 3: Productivity Index

In order to restrict and reduce the possibility of the movement of animals originating from areas with irregularities to other areas that are in compliance with TAC requirements ("animal triangulation"), and their later sale to meatpackers, a theoretical index of productivity of heads of cattle per hectare per year must be adopted to expose suspected cases of "animal triangulation."

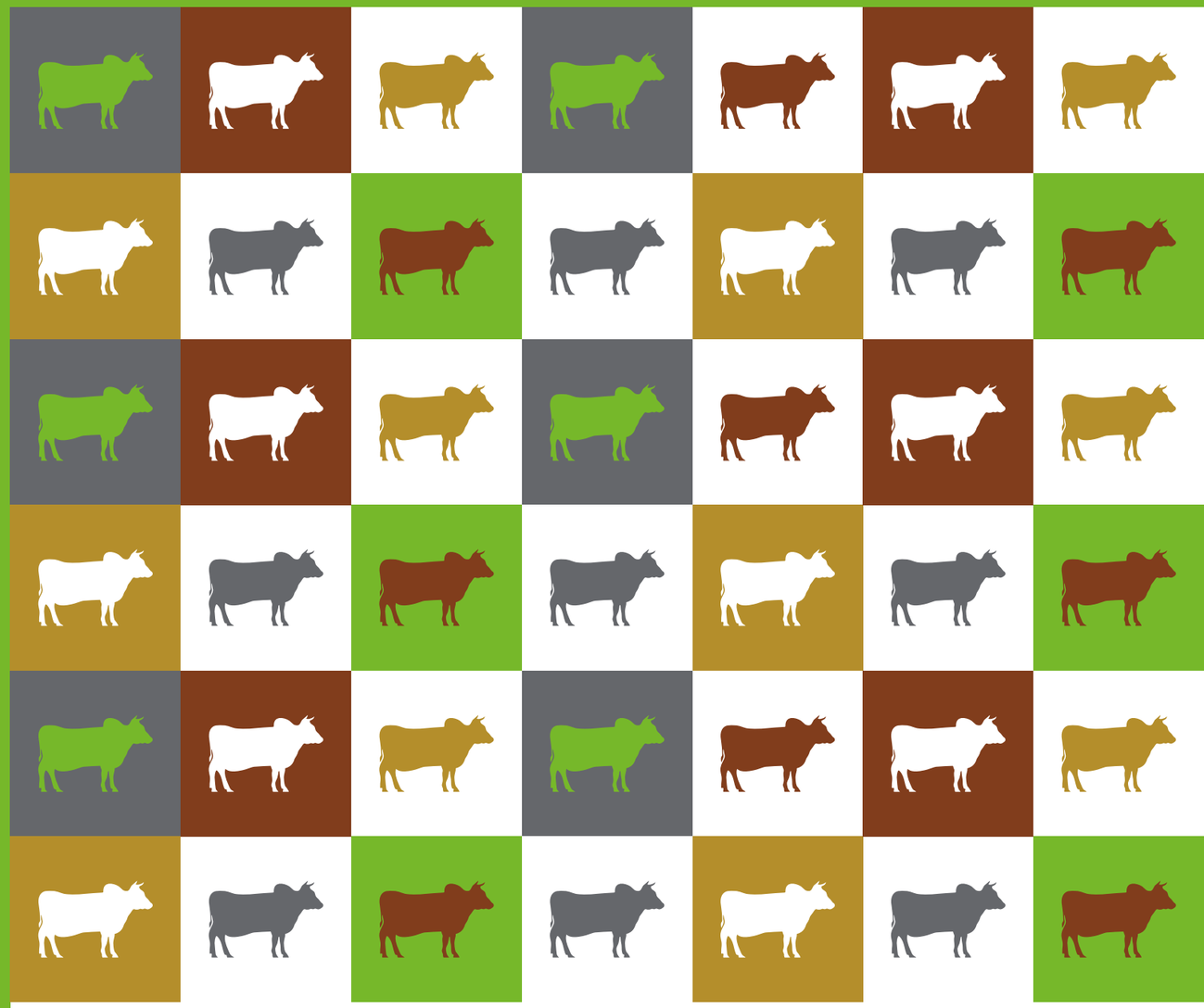
This theoretical productivity index must be calculated by a ratio between the number of animals sold to the meatpacker and the area of alternative use (consolidated use for production) of the property in a tax year based on CAR information, expressed in heads/ha/year.

The maximum acceptable value for the theoretical productivity index is 3.0 heads/ha/year, using the tax year as the time period.

For properties that have a theoretical index that is greater than 3.0 heads/ha/year, the production system in force on the property, such as feedlot, semi-confinement, food supplements, etc., should be checked to justify the productivity index reached by the property. For these cases, there must be proof for verification purposes or future audits.

Technical Note 4: Technical geomonitoring rule - overlap with deforestation polygons (PRODES Amazônia/INPE base)

In the case of deforestation polygons from the PRODES Amazonia/INPE database, the geomonitoring technical rule aims to adjust the reference for the use of the PRODES Amazônia/INPE database for the analysis of rural properties, adding as a reference in the Monitoring Protocol for Cattle Suppliers in the Amazon all deforestation polygons for purchases made after 1/Aug/2008 (page. 17). This means that the monitoring systems of the companies that are signatories to the TAC da Pecuária (Cattle Sector TAC) and the TAC Carne Legal (Beef TAC) must analyse all PRODES data that refers to dates subsequent to 1/Aug/2008, regardless of the base on which the polygon was disclosed.



APPENDIX II

Term of Reference for the Report on Environmental Embargo compliance (Ibama)

By following the terms of this document approved by the Public Prosecutor's Office (Official Letter 144/2019/Official/PR/AM), the producer demonstrates that he or she is making ongoing efforts to make the property with Ibama's environmental embargo due to deforestation properly regularized.

Term of Reference for the Report on Environmental Embargo compliance

1. Property Information
   a. Name
   b. Owner
   c. Indication if owner has any land title
2. Rural Environmental Registration (CAR) Information
   a. CAR number
   b. Domain.
3. Ibama Embargo Information
   a. No. of TAD
   b. Embargo date
   c. Name on the embargo
4. Information about any TAC or PRAD related to the embargoed area, if applicable.
5. Figure 1 - Map of the farm with differentiation of the embargoed and non-embargoed areas.
6. Figure 2 - Georeferenced photos showing that the embargoed area has some type of enclosure that prevents animals from moving into it.
7. Figure 3 - Temporal sequence of at least three images, starting in the year Ibama placed the embargo, showing the regeneration of vegetation in the embargoed area. The spatial resolution of the image must be at least 30 meters.

Date: xx/xx/xxxx
I confirm that the embargoed area is not in use for agricultural production.

_____ _____ _____
Owner
(full name and CPF individual taxpayers' registry no.)

_____ _____ _____
Head Technician
(full name and CPF individual taxpayers' registry no.)

This Report is valid for 01 year from the date of execution.

If the validity of the Report has expired, and the property remains on Ibama's List of Embargoed Areas, the owner must submit a new report in order to sell animals to meatpackers that have signed the Term of Conduct Adjustment.

This Report refers only to the environmental embargo mentioned in item 3 (Information on the Ibama Embargo).

Signed electronically on 08/Aug/2019 14:33. To verify authenticity, go to http://www.transparencia.mpf.mp.br/validacaodocumento. Key B5FDD2C9.DC117E57.7FE599F6.9FBD9436

Signed electronically on 08/Aug/2019 14:33. To verify authenticity, go to http://www.transparencia.mpf.mp.br/validacaodocumento. Key B5FDD2C9.DC117E57.7FE599F6.9FBD9436

APPENDIX III

Producer's statement

Productivity Index

In order to meet the socioenvironmental criteria defined by the Public Prosecutor's Office in the Cattle Sector TACs of Pará and the Amazon, with the purpose of curbing and eliminating the triangulation of animals from deforested areas, the cattle supplier properties that have a **productivity index of more than 3 animals/hectares/fiscal year**, must provide proof of their bovine production systems.

1. PROPERTY INFORMATION

a. Property name:
b. Municipality/State:
c. CAR (registration number or protocol number):

2. PRODUCER INFORMATION

a. Producer's name:
b. CPF/CNPJ taxpayers' registry ID no.:

3. INFORMATION ABOUT THE TYPE OF CATTLE FEEDING AND PRODUCTION SYSTEM

Inform which cattle feeding/production system is in use at the property:

[ ] Feedlot [ ] Semi-confinement* [ ] Pasture rotation [ ] Food supplementation [ ] Others (describe):	[ ] Cattle fattening [ ] Cattle rearing [ ] Cattle breeding [ ] Others (describe):

*Finishing

4. PHOTOS OF CATTLE PRODUCTION SYSTEM

Provide evidence of the cattle production system used on the property by producing at least two dated photos that must include the GPS with the geographic coordinates of the location.

Photo 1 Bovine production system	**Photo 2** Bovine production system

Date: _____ /_____ /_____
I declare for all due purposes and effects that the information contained in this Statement is true.

_____
(producer's signature)

This statement must be updated and submitted annually by the companies that have signed the Cattle Sector TAC of the Public Prosecutor's Office if the property has a productivity index higher than the threshold defined in the Cattle Sector's Monitoring Protocol.

APPENDIX IV
List of limitations for full compliance with TAC requirements

This appendix includes the limitations of this protocol regarding full compliance of the requirements of the commitments on which it is based. The plan is for the criteria that is not currently monitored to be included in upcoming versions, after technological upgrades, the wider availability of public information and the development of the signatories to ensure full compliance of the commitments undertaken with the Public Prosecutor's Office and civil society.

Requirements	Limitations
Traceability of information from indirect suppliers	Unavailability of public information
Amazônia Protege project	Information not systematically available
ICMBio and state environmental embargo lists	Information not systematically available
List of Slave Labor Reports issued by the Public Prosecutor's Office	Information not often available
List of rural violence issued by the Public Prosecutor's Office and the federal or state Land Institute	Information not systematically available
"Judicial conviction" and "causing injury" to IL	Information not systematically available
"Judicial conviction" for rural violence	Information not systematically available
Overlap into quilombola communities and traditional populations	Information not systematically available
"CCIR Inhibition"	Information not systematically available
CAR protocol of indirect suppliers	Information not systematically available
Georeferencing certification	Information not systematically available
Rural Environmental License or equivalent document in MT and RO	Information not systematically available

APPENDIX V
GLOSSARY

TERMS AND DEFINITIONS

Multitemporal analysis
Resource used to detect image variations over time. The analysis is made by comparing satellite images from different dates to check, for example, changes in the vegetation of a certain area, i.e., of a deforested or non-deforested area.

Embargoed areas
The embargo is an administrative sanction and/or administrative precautionary measure that aims to promote the regeneration of the environment and give viability to the recovery of the degraded area.[21]

Embargo for illegal deforestation in Pará state
The LDI (List of Illegal Deforestation in the State of Pará) is the legal instrument used to report areas that have been illegally deforested in the state and is managed by Semas/PA for searches by public state entities and the general public. The LDI includes information on deforested areas embargoed by Semas/PA and by the Municipal Environmental Agencies (Omma).

Blocked
Status of a non-compliant cattle farm.

Unblocking
Resource used to change the status of a non-compliant cattle supply farm, through confirmed analysis and documentation.

False-positive
Refers to the result of a deforestation analysis reported by the Prodes/Inpe system, based on satellite images, in which no shallow cut was detected in the mentioned period or the occurrence of deforestation prior to 2008. In other words, after a more in-depth analysis, the deforestation is not confirmed.

Slave Labor Black List
List of registration of employers who have submitted workers to slave-like conditions, released by the Economy Ministry.

Cattle triangulation
Triangulation, also known as cattle "warming" or "laundering", allows producers who are in an illegal situation to sell their cattle as if they were within the law.

1) The assessment of the main environmental embargo prevents the purchase of cattle from a supplier property that has two corporate (CNPJ) or individual (CPF) taxpayers' registry numbers registered, of which one of the numbers has an environmental embargo placed on it and the other is "clean".

2) The productivity index assesses the possible situation: at the time a lot is sold to a slaughterhouse, the producer presents the GTA, which shows the origin of the cattle. Since the rancher knows that the meatpacker will not accept animals from embargoed areas, he or she may use the GTA of another farm that is considered "clean" by the environmental agencies.

ICMBio - Accessed on February 5, 2020. Available at: http://www.icmbio.gov.br/portal/infracoesambientais/areas-embargadas

ACRONYMS AND ABBREVIATIONS

AD	(Autorização de Desmatamento) - Deforestation Permit
APA	(Área de Proteção Ambiental) - Environmental Protection Area
APF	(Autorização Provisória de Funcionamento) - Provisional Operating Permit
CAR	(Cadastro Ambiental Rural) - Rural Environmental Registry
CCIR	(Certificado de Cadastro de Imóvel Rural) - Rural Property Registration Certificate
Conama	(Conselho Nacional do Meio Ambiente) - National Council for the Environment
Deter	(Sistema de Detecção de Desmatamentos em Tempo Real) - Real Time Deforestation Detection System
DOU	(Diário Oficial da União) - Federal Official Journal
GTA	(Guia de Trânsito Animal) - Animal Transit Guide
Ibama	(Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis) - Brazilian Institute of Environment and Renewable Natural Resources
ICMBio	(Instituto Chico Mendes de Conservação da Biodiversidade) - Chico Mendes Institute for Biodiversity Conservation
Incra	(Instituto Nacional de Colonização e Reforma Agrária) - National Colonization and Land Reform Institute
Inpe	(Instituto Nacional de Pesquisas Espaciais) - National Space Research Institute
LAR	(Licença Ambiental de Rural) - Rural Environmental License
LAU	(Licença Ambiental Única) - Single Environmental License
LDI	(Lista de Desmatamento Ilegal do Estado do Pará) - List of Illegal Deforestation in the State of Pará
MMA	(Ministério do Meio Ambiente) - Ministry of the Environment
MPF	(Federal Public Ministry) - Public Prosecutor's Office
PI	(Unidade de Proteção Integral) - Full Protection Unit
PRA	(Programa de Regularização Ambiental) - Environmental Regularization Program
PRAD	(Plano de Recuperação de Área Degradada) - Plan for Recovery of Degraded Area
Prodes	(Programa de Cálculo do Desflorestamento da Amazônia) - Program to Calculate Deforestation in the Amazon
RL	(Reserva Legal) - Legal Reserve
Semas	(Secretaria Estadual de Meio Ambiente e Sustentabilidade) - State Department for Environment and Sustainability
SIF	(Serviço de Inspeção Federal) - Federal Inspection Service
Sisnama	(Sistema Nacional do Meio Ambiente) - National Environmental System
TAC	(Termo de Ajustamento de Conduta) - Term of Adjustment of Conduct
TI	(Terra Indígena) - Indigenous Land (IL)
UC	(Unidade de Conservação) - Protected Area (PA)
UF	(Unidade da Federação) - Brazilian state
UPF	(Unidade de Produção Fornecedora) - Supplier Production Unit
US	(Unidades de Uso Sustentável) - Sustainable Use Units

APPENDIX VI
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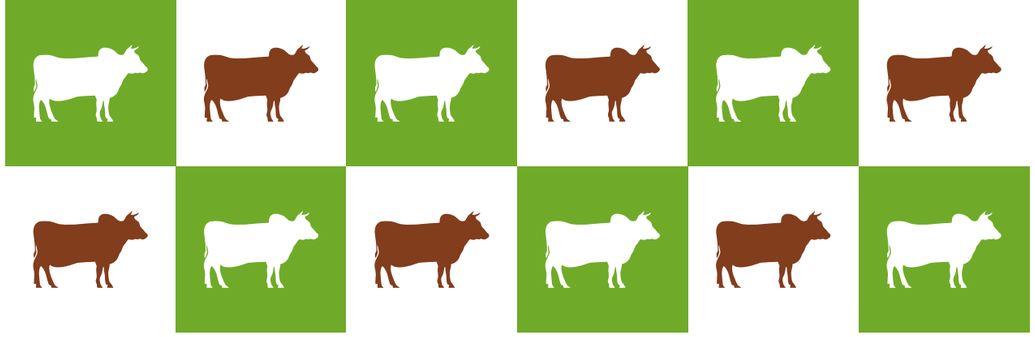

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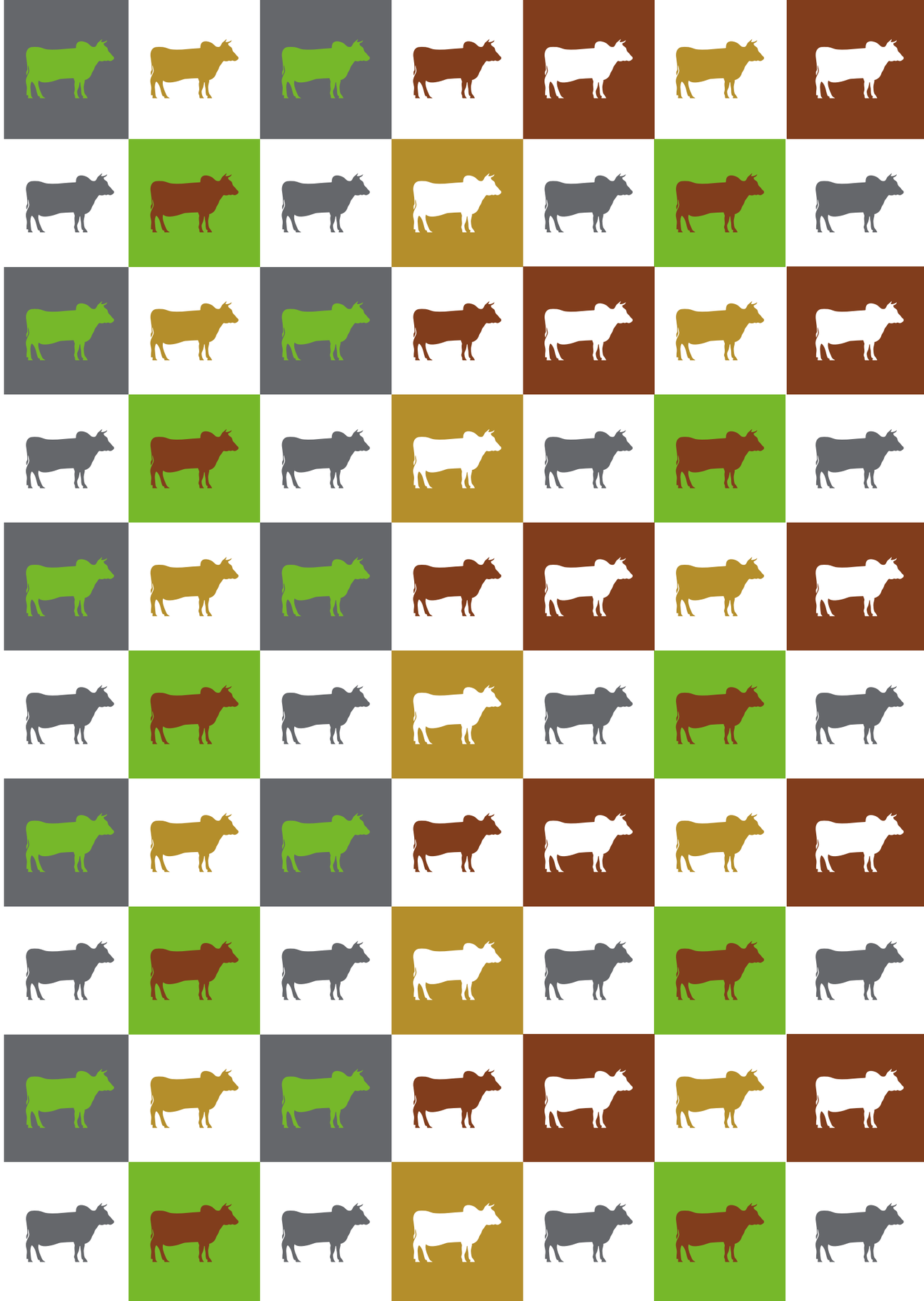

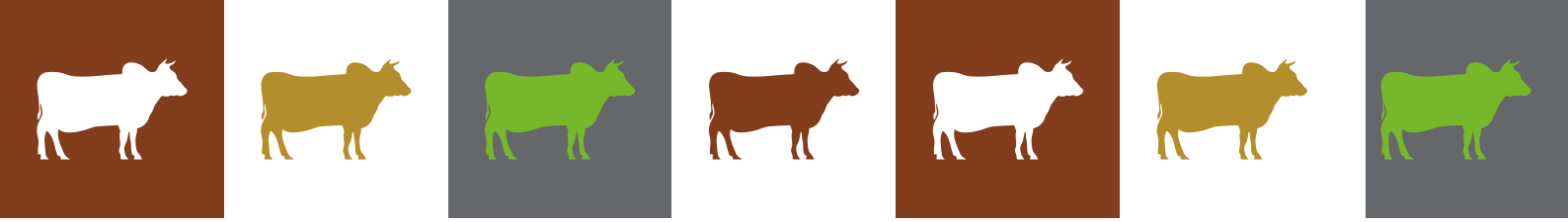

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