

10 YEARS OF

TERMS OF ADJUSTMENT OF CONDUCT IN PARÁ AND THE PUBLIC COMMITMENT ON CATTLE RANCHING

THE IMPORTANCE OF BEEF TRACEABILITY IN REDUCING
DEFORESTATION IN THE AMAZON



Amigos
da Terra
Amazônia Brasileira

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Amigos da Terra (AdT) –
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**Amigos
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BRIEF

Ranching is the activity most often found in recently deforested areas. The TerraClass project report – an initiative by the National Institute for Space Research (INPE) and the Brazilian Livestock and Agricultural Research Corporation (EMBRAPA) – published an analysis in 2016 that indicates that approximately 65% of the deforested areas in the Brazilian Amazon were converted into pastures from 2004 to 2014, which translates into 42 million hectares.

Several proposals are being implemented to find solutions for the deforestation driven by ranching, including the Terms of Adjustment of Conduct (TAC), an initiative of the Federal Prosecution Office (MPF) and the Public Commitment on Cattle Ranching (CPP), a voluntary protocol developed by Greenpeace. In 2009, several companies in the cattle sector signed the TAC and/or the CPP, committing to only purchase cattle reared on properties that were compliant with the social and environmental criteria set forth by the TAC and/or CPP commitments.

In general, these commitments (TAC and CPP) require that the companies check if their supplying ranches are engaging in deforestation, if they have embargoes from the Brazilian Environment and Natural Resources Institute (IBAMA) or State Environmental Agencies (OEMAs), if these properties have areas overlapping conservation units and/or and if they utilize labor under slave-like conditions, among other irregularities ¹.

1. See, for example, the MPF-TAC signed by the Masterboi Ltda meatpacking company on March 8, 2018 at : <http://apps.mpf.mp.br/aptusmpf/protected/download?sistema=portal-tac&modulo=0&id=29887078&tipoArquivo=application/pdf&nomeArquivo=29887078.pdf>.

The companies signing these commitments (mostly meatpacking companies) seek to ensure that the cattle are not sourced from properties with socio-environmental irregularities by implementing systems for controlling and monitoring the origin of the cattle. To that end, they often contract companies with geomonitoring services to provide technical support for their supply chain management systems that help inform their decision-making process for cattle procurement.

Both the TAC and the CPP call for company implementation to be verified through an independent auditing process. After analyzing the data from audits performed in 2017² and 2018³, AdT concluded that the TAC, demonstrated relatively more reliable results, given that the TAC involved a larger number of meatpacking plants, had active participation by the MPF and a more robust audit methodology.

Our analysis of the audit data also clearly highlighted the role and importance of the geomonitoring companies hired by the meatpackers to run their supply chain management and supplier screening systems to help ensure they avoided sourcing cattle from “non-compliant” ranches.

Both commitments (TAC and CPP) are important in the effort to help control deforestation in the Amazon. However, these commitments still have a critical gap that limit their overall effectiveness. Due to the fact that meatpackers currently only monitor the last property where the cattle have been before being sent to slaughter (direct suppliers), the meatpackers may still be buying cattle that were reared on other properties (indirect suppliers) with deforestation and other socio-environmental irregularities. This gap with indirect suppliers poses potential risk exposure for meatpackers and the rest of the value chain.

2. The audit performed in 2017 used 2016 as the reference period. In other words, the 2017 audit was based on data for cattle purchased in 2016. The Report with the results of that audit was issued by the MPF in 2018. 3. The audit performed in 2018 used 2017 as the reference period 2017. In other words, the 2018 audit was based on data for animals purchased in 2017. The Report with the results of that audit was issued by the MPF in 2019.



THE BEEF PRODUCTION CHAIN AND MEASURES FOR CONTAINING DEFORESTATION

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The TerraClass project report – an initiative by the National Institute for Space Research (INPE) and the Brazilian Livestock and Agricultural Research Corporation (EMBRAPA) – published an analysis in 2016 indicating that approximately 65% of the deforested areas in the Brazilian Amazon were converted into pastures from 2004 to 2014, which translates into 42 million hectares. That pasture area remained stable, meaning that it did not decrease or increase during the period analyzed (INPE; EMBRAPA, 2016). Currently, the land being deforested in the Brazilian Amazon continues to be predominantly used for cultivating pastures.

During the first decade of the 21st century, the high deforestation rates found in the Amazon, and, more specifically, in the state of Pará, led the MPF in that state to perform a comprehensive investigation that found connections between the different actors in the beef production chain and deforestation. That investigation led to 20 court cases and fines totaling two billion reais for environmental damages. Additionally, 69 other manufacturers and retailers were warned not to do business with companies involved with illegal deforestation.

Parallel to and independent of these actions by the MPF in Pará, Greenpeace began a zero-deforestation campaign for the Amazon region, pressuring the largest meatpackers at the time to undertake measures for eliminate deforestation in their supply chains.

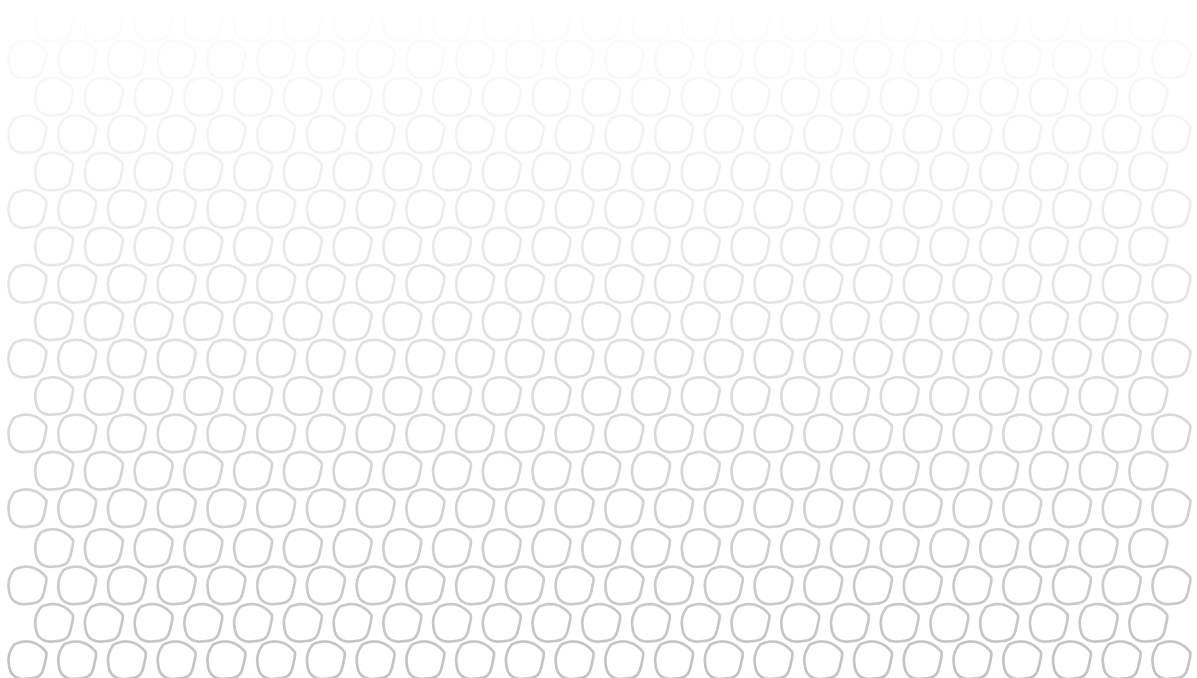
Thus, in 2009, in order to find a solution for deforestation driven by ranching, several companies in the sector signed the Terms of Adjustment

of Conduct (TAC) and/or the Public Commitment on Cattle Ranching (CPP), through which they commit not to buy cattle from properties with socio-environmental irregularities (Barreto; Gibbs, 2015).

In addition, it is important to note the importance of enforcement policies that need to accompany governmental legislation and actions. One example of that is the fact that the meatpackers that signed the Beef TAC have developed analysis methods and means for avoiding purchasing animals from ranches that are not in compliance with the environmental or social laws now in force (Barreto; Gibbs, 2015).

Besides having similar objectives, both the TAC and the CPP call for contracting independent audits to ascertain whether the terms in those commitments are being met by the signatory companies.

Considering the data and results of the audits performed on the meatpacking plants that signed the TAC and/or CPP in 2017 and 2018, this report seeks to illustrate the differences between those two commitments, assess compliance with their respective demands and analyze the control strategies employed by the signatory meatpackers.





THE BEEF TAC

 [BACK](#)

In 2009, the Federal Prosecution Office (MPF) in the state of Pará began an initiative to notify the meatpacking plants operating in that state regarding the socio-environmental conditions on the properties that raise the cattle being purchased and their joint liability regarding those aspects. The meatpacking plants then began to develop purchasing strategies and policies to meet the requirements of the TAC signed with the MPF.

In general, the TAC focuses on legal environmental and social aspects involved in the ranching activity. It requires meatpacking plants to verify if the cattle ranches they do business with practice illegal deforestation, if they are embargoed by the Brazilian Environment and Natural Resources Institute (IBAMA) or State Environmental and Sustainability Secretariat (Semas), if those properties overlap conservation units and/or indigenous lands and if they employ workers under slavelike conditions, among other irregularities.

Currently, 32⁴ meatpacking plants and/or exporters of live cattle are TAC signatories (Monitac, 2020)⁵. Appendix 4 lists all current TAC signatories in Pará.

After pioneering action by the MPF in Pará with implementation of the TAC for the beef production chain, other Amazon states such as Mato Grosso, Acre, Rondônia and Amazonas have adopted what are now popularly called “Beef TACs” (Barreto; Gibbs, 2015).

4. It was decided to inform the number of plants, because, although the TAC signatory is a company, the results of the TAC-related audits are informed by the individual meatpacking plants. 5. To search: enter the Monitac site: http://monitac.oeco.org.br/wordpress/?page_id=162, “Frigoríficos” page, and in the search options choose: Estado: Pará; Possui Acordos: sim. The number of plants with agreements in the state will appear in parentheses next to the Terms

THE PUBLIC COMMITMENT ON CATTLE RANCHING

 BACK

The largest meat processing companies in Brazil – JBS, Marfrig and Minerva, participate in the Public Commitment on Cattle Ranching (CPP), launched in 2009 by Greenpeace (Table 1). It establishes that signatories will not buy cattle raised on properties that do not comply with environmental and social laws, or those with any deforestation activity in their area, even if they have legal authorization issued by the appropriate environmental agency (Greenpeace Brasil, 2019).

In June 2017, after Operation Cold Meat launched by IBAMA, during which some meatpacking plants had their operations suspended due to suspected irregularities related to the purchase of cattle from areas embargoed by IBAMA, Greenpeace announced that it would no longer participate in implementation of the Public Commitment due to the recent scandals in the ranching sector. However, the CPP remains in effect for the three giants of the beef industry (Greenpeace, 2017).

Table 1: Meat companies that signed the CPP and the respective auditing firms

Company	Auditing firm
JBS	DNV GL
Marfrig Group	DNV GL
Minerva Foods	Grant Thornton

Note: The results of the audits related to the CPP are informed by company, and not by meatpacking plant as happens with the TAC.
Source: Reports from audits performed in 2017 and 2018 with 2016 and 2017 respectively as references (DNV GL, 2018a, 2018b; Grant Thornton, 2018).

EXTENT AND EFFICIENCY OF CONTROLS APPLIED BY THE MEATPACKING COMPANIES

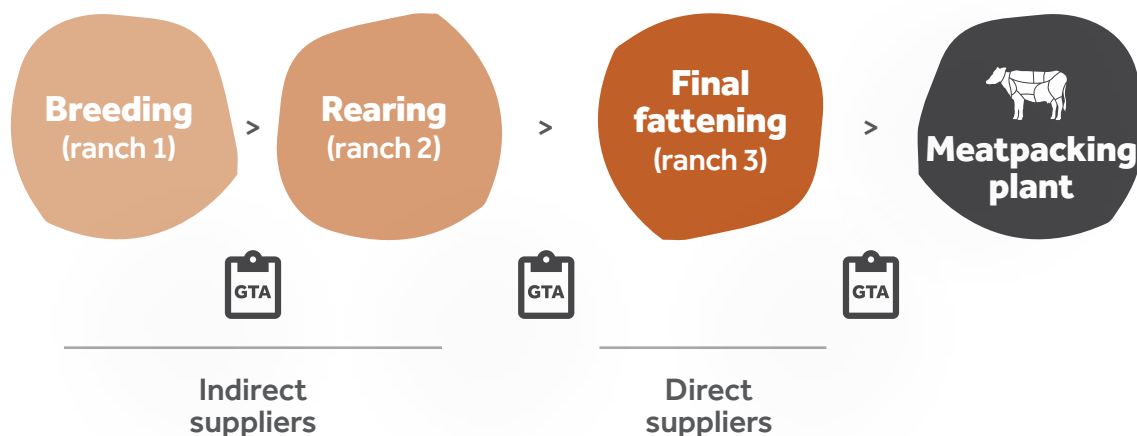


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The systems meatpacking companies use to meet the demands from the TAC and voluntary commitments such as the CPP use official public data open for public consultation as the basis for their analyses. When applicable, they also employ complementary information provided by their cattle supplier, known as the “direct supplier.”

However, cattle production is divided into three main phases and often involves several properties, according to the cattle’s age and the rancher’s area of expertise (as shown in Figure 1 below).

Figure 1: The different production links involved in the beef supply chain.



Notes: For each transport between ranches an **Animal Transportation Permit (GTA)**  is issued. Figure 1 provides a simplified illustration of the productive links in the beef chain. It should be noted that a single ranch may handle one or more phases in raising cattle. This means that cattle may be shifted around in a complex series of transactions until their sale to a meatpacking plant. To facilitate understanding, the different possibilities for moving cattle throughout the chain are presented in Appendix 1. Source: Data from the current report (2019).

Even though the TAC and CPP cite “indirect suppliers” in their text, meaning those who focus on the cattle’s first stages of life (breeding and rearing) and who supply the ranchers tasked with the final fattening and supply to meatpacking plants, the focus for controlling the systems developed by meatpackers and their service providers for verifying the good standing of the raising properties continues to be the final property before the cattle reach the meatpacker.

The lack of information on the maze of raising sites and owners involved in the stages of moving the cattle is not the only challenge the meatpackers face. Their plants are also vulnerable to purchasing practices that involve the triangulation of cattle and documents, also known as “cattle laundering.”

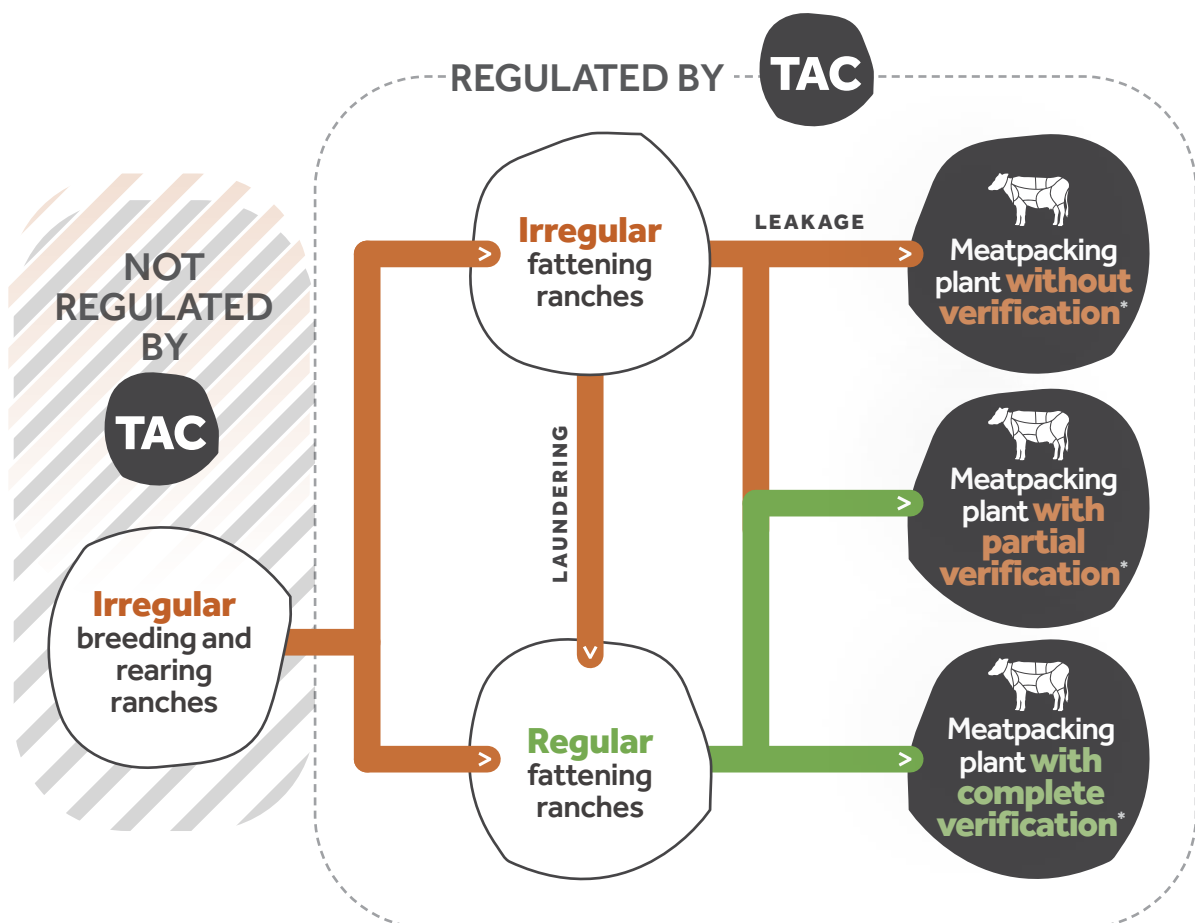
Triangulation is a simple process in which “dirty” or irregular ranches that do not follow the buying practices of meatpackers sell cattle using the GTA from a “clean” rural property and their cattle are thus accepted by the buyers. Using the same logic, it is possible to “launder cattle” in several ways and with different arrangements, and none of the current systems are capable of identifying those practices, as shown in Figure 2, in the next page.

Another very common problem is the so-called “leakage,” a constant source of complaints from the meatpacking plants that adhere to voluntary agreements and the TAC. This involves the lack of inspection of establishments that flout the rules of the agreements and thus continue to purchase cattle from properties that are not in line with socio-environmental laws and norms.

This situation establishes a channel for “leaking” cattle that are not supposed to be bought, since the idea is to compel irregular owners to seek to bring their areas into conformity, and, mainly, to prevent new forest areas from being cleared.

These practices of "triangulating" cattle and documents and "leakage" have been detailed previously by several authors, including Barreto and Gibbs (2015).

Figure 2: Possible arrangements for violating the TAC and the voluntary agreements that are based only on monitoring the direct meat-packing plant suppliers.



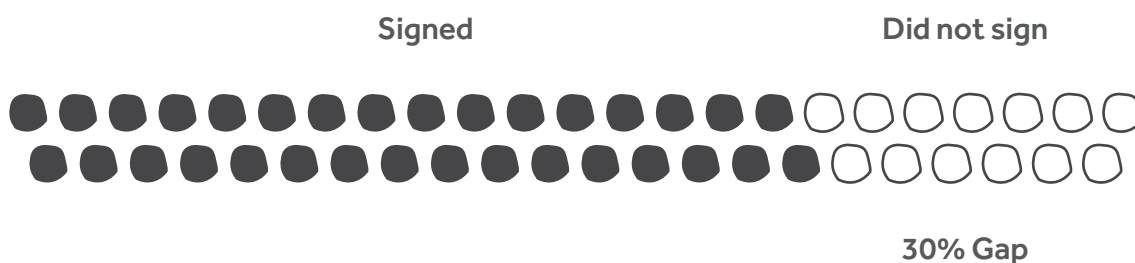
Source: Data adapted from Barreto and Gibbs (2015).

NUMBERS FOR THE SECTOR IN THE STATE OF PARÁ AND PARTICIPATION BY THE MEATPACKERS THAT HAVE SIGNED THE TAC



 BACK

Since 2009, of the 45 meatpackers and/or live animal exporters Pará⁶, such as Minerva Foods, registered with the State Inspection Service (SIE) and the Federal Inspection Service (SIF), 32 have signed the Pará TAC (Monitac, 2020).



Marfrig Global Foods and ForteFrigo stand out among the meatpackers that did not sign the TAC and have a significant slaughter volume in Pará. The former slaughtered approximately 150 thousand animals 2017⁷, according to its slaughterhouse capacity⁸ and the result of its internal audit⁹, while the latter slaughtered almost 75 thousand animals in that same year. One should note that ForteFrigo has contracted an audit and delivers its reports to MPF, despite not being a signatory.

These examples are worth citing, because they illustrate how companies operating in the same territory, but with different sourcing policies and controls, may compromise the competitive and fair business environment that is supposed to exist in cattle sourcing, and hinder MPF efforts to reduce deforestation in the state of Pará.

6. To search: enter the Monitac site: http://monitac.oeco.org.br/wordpress/?page_id=162, "Frigoríficos" page, and in the search options choose: Estado: Pará; the number of meatpacking plants will appear inside parentheses beside the name of the state chosen. 7. According to information from meatpacking plants that are partners of Amigos da Terra. 8. Meatpacking plants of the same size in that area slaughter 600 to 700 head of cattle per day on average and operate around 20 days per year. 9. The audit performed by the DNV GL company uses "purchase orders" as the object of its analysis and relates them to the number of cattle purchased. However, it does not provide a definition for "purchase orders", which may be a number of cattle from a given property, given that the analysis refers to the area where the animal spent the last phase of its life and not to the specific animal. Thus, a given purchase order may involve one or one hundred head of cattle.



AUDITS FOR THE TAC AND THE PUBLIC COMMITMENT ON CATTLE RANCHING

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The concept of an independent audit comes from the 19th century, following the Industrial Revolution and at a time when organizations began transitioning from family-owned enterprises to what would become the joint-stock companies of today. New partners, now the shareholders, began demanding that business records be examined by independent professionals, in order to try and guarantee the integrity, in other words, the transparency of their company's business (Cardozo, 1997).

Nowadays, the concept of audits and shareholders has changed. Besides the shareholders, companies with modern governance also take into account all stakeholders involved, considering what is best for all, not only in terms of offering a quality product, but also that their productive processes must be a reference for quality regarding treatment of the environment and respect for social issues involved in their production chain.

Both the TAC and the CPP provide that their results must be assessed by an independent audit process, but present different methodologies (terms of reference) for doing so despite their similar objectives. Below we present details of the auditing processes that the signatory meatpacking plants must follow in order to satisfy the CPP and TAC requirements.

Public Commitment on Cattle Ranching – CPP

The process for validating procedures begins with the hiring of audit companies by the meatpackers and continues with the analysis of the data and processes meatpackers have for sourcing cattle to verify if the criteria established in the commitment are being met.

Below is the list of the “Minimum Criteria for Large-Scale Operations with Cattle and Cattle Products in the Amazon Biome,” as laid out in a summarized document drawn up by Greenpeace (Greenpeace Brasil, 2019).

- a** Zero deforestation in the supply chain after (10/05/2009).
- b** Rejection of invasions of indigenous lands and protected areas.
- c** Rejection of slave labor.
- d** Rejection of land grabbing and violence in the countryside.
- e** Implementation of a monitorable, reportable and verifiable production (MRV) traceability system.
- f** Implementation of commitments throughout the production chain, together with suppliers.

The analyses conducted by DNV GL and Grant Thornton in their audits of JBS, Minerva and Marfrig in 2017¹⁰ and 2018¹¹, (which led them to conclude that the CPP criteria were met) consisted of:

- a** Selection of the meatpacking plants that operate in the Amazon biome and/or are supplied by cattles from this biome.
- b** Collection of a sample made up of 10% of the information on purchasing transactions for each plant selected.

Analyses are conducted for purchase transactions involving only direct suppliers of the meatpacking plant, as well as verification of existence of internal policies for purchasing cattle, to see if such policies meet the CPP and how they are implemented.

10. Audit performed in 2017 based on data for the year 2016. 11. Audit performed in 2018 based on data for the year 2017.

Terms of Adjustment of Conduct – TAC

All signatory meatpacking plants for the Pará TAC are required to contract an audit to verify if the criteria found in the commitment signed with the MPF are being applied in their cattle purchasing transactions (MPF Pará, 2009). The obligations assumed by the meatpacking plants are listed below:

- a** Contract an audit company and inform its name to the MPF.
- b** Send the contracted company the information kit received from the MPF, containing:
 - i** All the GTAs issued in the state of Pará addressed to the company that contracted the audit, even if for plants outside the state.
 - ii** Database with the Rural Environmental Registry (CAR) for the entire state.
 - iii** Deforestation polygons produced by the Program for Calculating Amazon Deforestation by Satellite (PRODES).
 - iv** List of areas embargoed by IBAMA and their polygons.
 - v** “Slave labor” list issued by the Federal Government.
 - vi** List and polygons of protected areas (conservation units and indigenous lands) in the state.
- c** Request contracting of a 100% analysis of cattle purchase transactions for delivery to the MPF. That methodology enables analysis of the compliance of each property supplying the cattle acquired in the audit of data from purchases effected in 2016.
- d** Provide data for the contractor to analyze all purchase transactions of half the total volume,

emphasizing larger volumes, and of 5% randomly collected from the other half of transactions from 2017, for delivery later to the MPF. This is only for companies that have the TAC, have presented a report and have obtained a NON-COMPLIANCE result below 20% in the audit for the period of 2016.

At the end of the audits, the MPF conducts a process for analyzing and checking the results obtained, after which they may request a review by the companies that performed the audits.

Comparison between audits: TAC vs. CPP

Although the texts for both the TAC and CPP called for monitoring the chain as a whole, including its indirect suppliers, in reality both agreements focus on monitoring only direct suppliers and use the GTA assigned to them as a guarantee of the last origin of the cattle purchased. Furthermore, to prepare their audit reports, both use as their parameters: the databases for deforested areas from PRODES; databases from the Rural Environmental Registry/Rural Environmental Registry System (CAR/SICAR); the Labor Inspection Sub-secretariat slave labor list (SIT); and databases for protected areas, from both the Chico Mendes Institute for Biodiversity Conservation (ICMBio) and the State Secretariat of Environment and Sustainability (SEMAS).

What differentiates the methodologies applied in the TAC and CPP audits is their method for analyzing whether the commitments are being met. With the TAC, the auditor verifies whether all the clauses in the agreement signed have been met and for that purpose performs a socio-environmental analysis of all the properties that supply the meatpacking plant. With the CPP, the auditor analyzes whether the meatpacking plant has performed the procedures defined in its purchase policy (monitoring procedures), and not whether the property was or was not acceptable for supplying cattle. In other words, unlike what occurs with the TAC, with the CPP audit there is no analysis of spatial images, much less deforestation data or any other document related to the property that supplied the cattle.

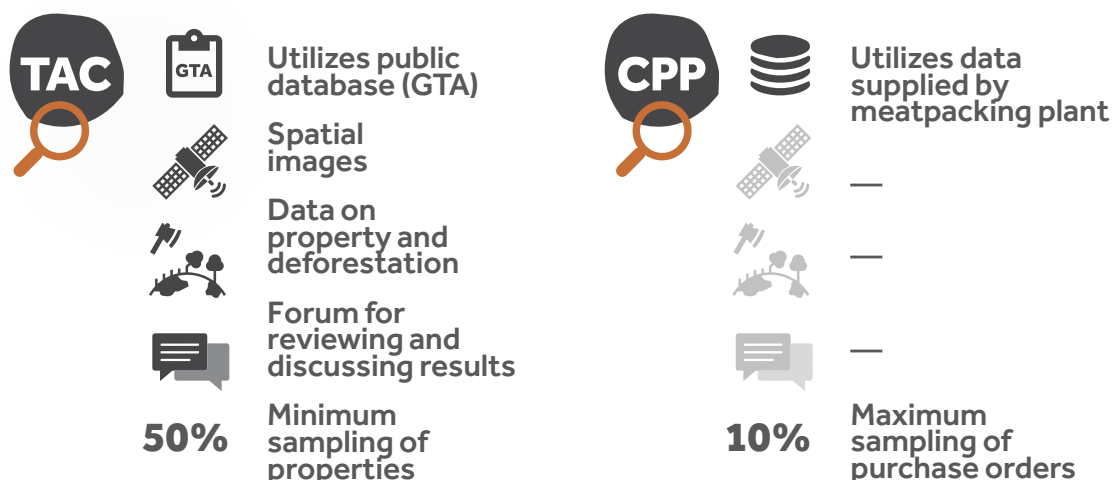
The sources of data to be analyzed are also different. With the TAC, the GTAs, the primary documents for identifying which properties have supplied cattle to the meatpacking plant, are received directly from the MPF by the audited companies. With the CPP, the meatpacking plant being audited itself provides access to data from its suppliers.

The fact that, with the CPP, the audit company is able to access information on purchase and origin of cattle only through the database supplied by the audited company itself may constitute a sampling bias and lead to an error in analysis - a risk not present with the TAC audit methodology.

Unlike what happens with the CPP, with the TAC audit the sample is not randomly selected, and that may lead to a skewed result, since the result is not representative of the whole. However, with the TAC, the sampling effort is undeniably larger, at least 50% of the supplying properties in the case of the TAC compared to 10% of the purchase procedures in the case of the CPP.

Finally, the analysis and verification of findings from the audits by the MPF in the TAC case also provide a contrast between the two audit processes, given that the CPP lacks a procedure and/or forum for reviewing and discussing its results.

Figure 4: Comparative summary





THE ROLE OF SERVICE PROVIDERS IN THE MEATPACKER'S DECISION-MAKING PROCESS

 BACK

There are several ways to control cattle purchases to guarantee that they come from areas in compliance with publicly assumed commitments and/or to meet the TAC determinations. Practically all the industrial groups that control meatpacking plants with high slaughter volumes have contracts with companies that help them make decisions on whether or not to buy cattle, based on information surveyed and generated on the cattle supplier and the corresponding property where the cattle spent the last phase of their lives.

We present monitoring data¹² below for the three largest meat producer groups, which can clearly illustrate the complexity of the systems for supporting decision-making and the determinant role of the companies that provide that support to them:

JBS

According to the latest CPP audit reports, this company splits its analysis system into two processes. The first begins with registering the ranches that wish to do business with JBS through its integrated system for registering suppliers. All of the group's meatpacking plants use this tool to verify whether or not the potential supplier appears on lists for the IBAMA embargo and the Labor Inspection Sub-secretariat (SIT), which issues the slave labor list.

12. The data presented were extracted from audit reports from 2017, all available on the companies' sites. It was decided to use reports with data from that year, since they were available for all the organizations (DNV-GL, 2018a, 2018b; Grant Thornton, 2018).

The second analysis process is performed using geospatial technology tools, which verify the overlapping of deforestation polygons produced by the PRODES system, and any overlap of the property with conservation units and indigenous lands. Agrottools¹³ has been contracted by JBS since 2013 for this verification stage and issues a daily report on ranches registered in the system, classifying them as “blocked” or “approved.”

JBS does not have a mechanism in its supplier control system that addresses indirect suppliers.

Marfrig

Even though Marfrig did not sign the TAC with the MPF in the state of Pará, it is presented as an example, because it is the second largest meat sector group and its plant in Pará is highly significant in cattle slaughter and beef production. In addition, in 2010 it signed a TAC that applies to the state of Mato Grosso.

According to the latest CPP audit reports, the company has its own system for consulting the IBAMA embargo lists, with which it verifies if the Individual Taxpayer Number (CPF) or Corporate Taxpayer Number (CNPJ) registered to the seller appears on that list. The decentralized consultation is done by the employee who negotiates the cattle purchase transaction, through the TAURA internal control system, which blocks purchases from sellers who are on the list of areas embargoed by IBAMA and also from potential suppliers that are on the “slave labor” list.

For verifications that require geospatial intelligence, such as verifying that the property does not have deforestation identified by the PRODES system and that its limits do not overlap those of conservation units and/or indigenous lands, Marfrig contracted the Geoflorestas geotechnology company¹⁴. The organization does not have a system in place for monitoring its indirect suppliers.

13. <https://www.agrottools.com.br/> 14. <https://geoflorestas.com.br/>

Minerva

This company works in the meat sector and in exporting live cattle, and its business is supplied, albeit not exclusively, with cattle from the Amazon biome.

According to the latest reports from the CPP audits, the company has a system for registering potential suppliers in which all documents about a property and its owner are inserted. Should the supplier not own the area, documents are requested to confirm his or her link with the original area of the cattle he or she wishes to sell to the meatpacking plant. During this stage, the system runs a first check to see if the CPF and/or CNPJ for the potential supplier shows up on the IBAMA embargo lists and on the “slave labor” list issued by the Labor Inspection Sub-secretariat (SIT). Analyses that require geospatial technologies are performed by the NicePlanet geotechnology company¹⁵ to monitor purchase transactions. It is important to note that NicePlanet redoes its verification of the item on areas embargoed by IBAMA and/or other environmental agencies at the state and municipal level and also verifies the georeferenced polygon that was embargoed by the appropriate agency. The Minerva group does not have a control system capable of monitoring its indirect suppliers.

Comparison between the monitoring systems adopted by meatpackers

The control tools adopted by meatpackers may vary, but their procedures are very similar, and consist of a first stage with automated checking to detect if the supplier is on the IBAMA embargo and slave labor lists issued by the federal government. A second phase involves geospatial monitoring focusing on criteria dealing with deforestation and invasions of indigenous lands and conservation units (Table 2).

15. <https://www.niceplanet.com.br/>

Specifically regarding monitoring the IBAMA embargo lists, it should be highlighted that in 2018, the MPF reemphasized the need for monitoring and verification procedures to include data on both the individual person and/or corporate entity regarding the shapefile polygon, both provided by IBAMA on official lists (MPF Pará, 2018a).

The outsourced stage for companies providing geomonitoring services is considered the most complex one and demands specific knowledge and technologies to be carried out, since it is not merely a checking of lists with the CPF and CNPJ blocked by official government agencies.

During this activity mistakes may occur in clearing (or removing restrictions from) a supplier whose property does not comply with the purchasing policies of companies and their commitments, as is the case with the TAC and other agreements.

It is important to note that all companies providing geomonitoring services use exactly the same databases and information publicly available for consultation and/or downloads on sites for IBAMA, the Ministry of the Environment (MMA), National Indian Foundation (FUNAI), SEMAS, Ministry of the Economy (Labor Secretariat) and INPE.

The companies providing geomonitoring services and the meatpackers' purchasing and sustainability departments need to work quite closely together, since, on the one hand the service providers generate the information that will inform decision-making regarding purchases, and on the other, the meatpackers apply the criteria for purchases.

Service providers identify if the property overlaps any conservation units and/or indigenous lands, and if the georeferenced polygons for embargoed areas provided by IBAMA and those for deforestation identified by PRODES are covering the same area of the property.

All the decisive criteria used for determining the suitability of a supplier are the responsibility of service providers and such providers may make mistakes that allow a noncompliant ranch to be considered a qualified supplier. Thus, the meatpackers need to adopt specific procedures to verify if the analyses delivered by their service providers are accurate.

Table 2: TAC and CPP criteria and who does the checking for each meat company

	JBS	Marfrig	Minerva
List of areas embargoed by IBAMA	JBS	Marfrig	Minerva and NicePlanet
Polygon for area embargoed by IBAMA	Not identified	Not identified	NicePlanet
Deforestation	Agrotools	Geoflorestas	NicePlanet
Conservation units	Agrotools	Geoflorestas	NicePlanet
Indigenous lands	Agrotools	Geoflorestas	NicePlanet
Slave labor list	JBS	Marfrig	Minerva and NicePlanet
Responsible for clearing the ranches	JBS	Marfrig	Minerva
Responsible for blocking the ranches	Agrotools	Geoflorestas	NicePlanet

Source: Data from the current report based on surveys from the 2017 audits.

One of the most frequent means for getting around criteria for deforestation, areas embargoed, conservation units and indigenous lands is to alter property limits, so that the criteria listed above are no longer present “inside” the property.

Limits for properties are currently defined in their Rural Environmental Registries (CAR) and the great majority of rural properties in Brazil already have these. However, the CAR is still in the initial phase of being validated by state governments, which allows property limits (geometry corresponding to the property perimeter) to be edited at the convenience of the area owner or even the technical person responsible for making the registry.

As an example of the importance of the work that the companies that offer geomonitoring services perform for meatpacking companies, one should note that they are the only ones that can identify if the polygon delimiting the area of the property has had its limits changed so that it will not be identified as having deforestation or an overlap with conservation units or indigenous lands. In other words, their work requires considerable technical expertise together with a set of historical map data, whether obtained from CAR or from their own databases accumulated over years of providing services for different companies in different areas.

The case above is also useful to illustrate the importance of work in partnership between the two parties, because in an automatic analysis lacking many details, a property already supplying cattle may deforest inside its property making use of the artifice of “trimming” the boundaries of its CAR. A subterfuge of this nature cannot be identified simply by consulting the official databases, and it is only possible to identify irregularities of this type through simultaneously consulting the databases accumulated by the companies providing geomonitoring services.

Essentially, the TAC and CPP criteria must be applied while always considering that the central objective of all this monitoring effort is to reduce deforestation and guarantee that the beef production chain does not cause or increase such damage to the environment. Automatically checking if criteria have been met is not enough for achieving this goal. Meatpackers and their service providers must join together to develop a strategy for preventing purchases of cattle from areas with deforestation and other irregularities, and overcome the daily pressure of purchasing buying the largest amount of cattle.

With the smaller meatpacking plants (i.e. all except the three giants in the sector), the companies that provide geomonitoring services almost completely assume the job of analyzing suppliers¹⁶. Even the control and management systems of these meatpacking plants may be inextricably linked with those of the service providers, from which they extract information about the approval or rejection of a potential registered supplier and the reason for a blocked request, when that occurs.

The companies that provide geomonitoring services to the meatpacking companies play a critical role, mainly in achieving success with the commitments assumed, and in reducing deforestation. That would justify an independent monitoring and classification system to work at a level above the services provided by those companies, for the purpose of evaluating the support systems that inform decision-making by the meatpacking companies.



¹⁶. Information obtained by Amigos da Terra from consultations with meatpacking plants.




RESULTS OF THE TAC AND CPP AUDITS



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The results of audits of both the TAC and the CPP display the performance of the control systems that the meatpacking companies adopt and also show that the monitoring and audit methodologies adopted make a difference in the final result. Table 3 presents the audit results for 2016 and 2017, for the two commitments signed.





















Table 3: Relative value of non-conformities found in each audit system in terms of data from 2016 and 2017

	TAC 2016	CPP 2016	TAC 2017	CPP 2017	GEO Company
JBS	19%	0%	8,3%	0%	Agrotools 
Marfrig	Did not sign	0%	Did not sign	0%	GeoFlorestas 
Minerva	0%	0%	0,3%	0%	NicePlanet 

Note: The TAC analyzes the number of cattle purchased and the CPP looks at the number of purchases carried out that do not meet requirements in the agreement. Source: Data from the current report based on surveys of the audits (2019)

The following page presents the results of the Pará TAC audits for the years 2017 and 2018 regarding cattle purchased in 2016 and 2017, respectively. Table 4 presents the number of cattle acquired per meatpacking plant, the percentage of irregularities of those establishments, and the service providing companies responsible for geomonitoring purchases during the reference periods.

Table 4: TAC results in the 2017 and 2018 audits.

	2017					2018				
	# animals	Audited	Irreg.	% Irreg.	Geo Company	# animals	Audited	Irreg.	% Irreg.	Geo Company
JBS (4)	610.269	610.269	118.459	19,1%		541.454	301.207	24.907	8,3%	
Mercúrio (3)	381.772	381.772	1.328	0,3%		538.226	505.416	1.128	0,2%	
Minerva	181.008	181.008	—	0%		304.361	297.000	776	0,3%	
Marfri-norte	164.280	164.280	518	0,3%		177.318	155.693	0	0,0%	
Xinguará	163.573	163.573	—	0%		177.070	152.064	85	0,1%	
Frigol	160.791	160.791	27.969	17,4%		271.591	271.591	50.830	18,7%	
Master-boi	127.837	127.837	39.684	31%		147.885	147.885	5.508	3,7%	
Rio Maria	123.864	123.864	—	0%		127.760	93.571	19	0,0%	
Agro-export	96.614	96.614	—	0%		93.490	88.369	—	0,0%	
Forte-frigo	74.056	74.056	6.222	8,4%		122.370	122.370	18.687	15,3%	
Totais	2.084.064	2.084.064	194.180	9,3%		2.501.525	2.135.166	101.940	4,7%	

Geo Company: **Agrotools**  **Niceplanet** 

Source: Data collected from surveys of audits by Amigos da Terra Technical Team (2019).^{17,18}

Table 4 presents data from the most significant meatpackers in the sector (number slaughtered equal to or greater than 50 thousand head of cattle for 2016 and 2017). These ten meatpackers alone, in the 2017 audit accounted for almost 200 thousand irregular head of cattle, confirming the importance of monitoring the cattle's origin. The fact that these are the meatpackers with the best practices in the state suggests that those that have not yet signed the TAC may have even larger numbers of noncompliant cattle.

¹⁷. The data in the table were compiled by the Amigos da Terra technical team based on the MPF report entitled "Detalhes dos principais resultados auditados ("Details of main results audited") (MPF Pará, 2018b), in the events promoted by the MPF for disseminating audit results, held Belém on March 9, 2018 and November 12, 2019, and on sites for the geomonitoring companies (Agrotools, 2019; NicePlanet, 2019).

¹⁸. One should note that the Marfrig plant located Pará and slaughtering around 150 thousand cattle/year is not in Table 4 because the company had not signed the TAC as of the date this report was published.

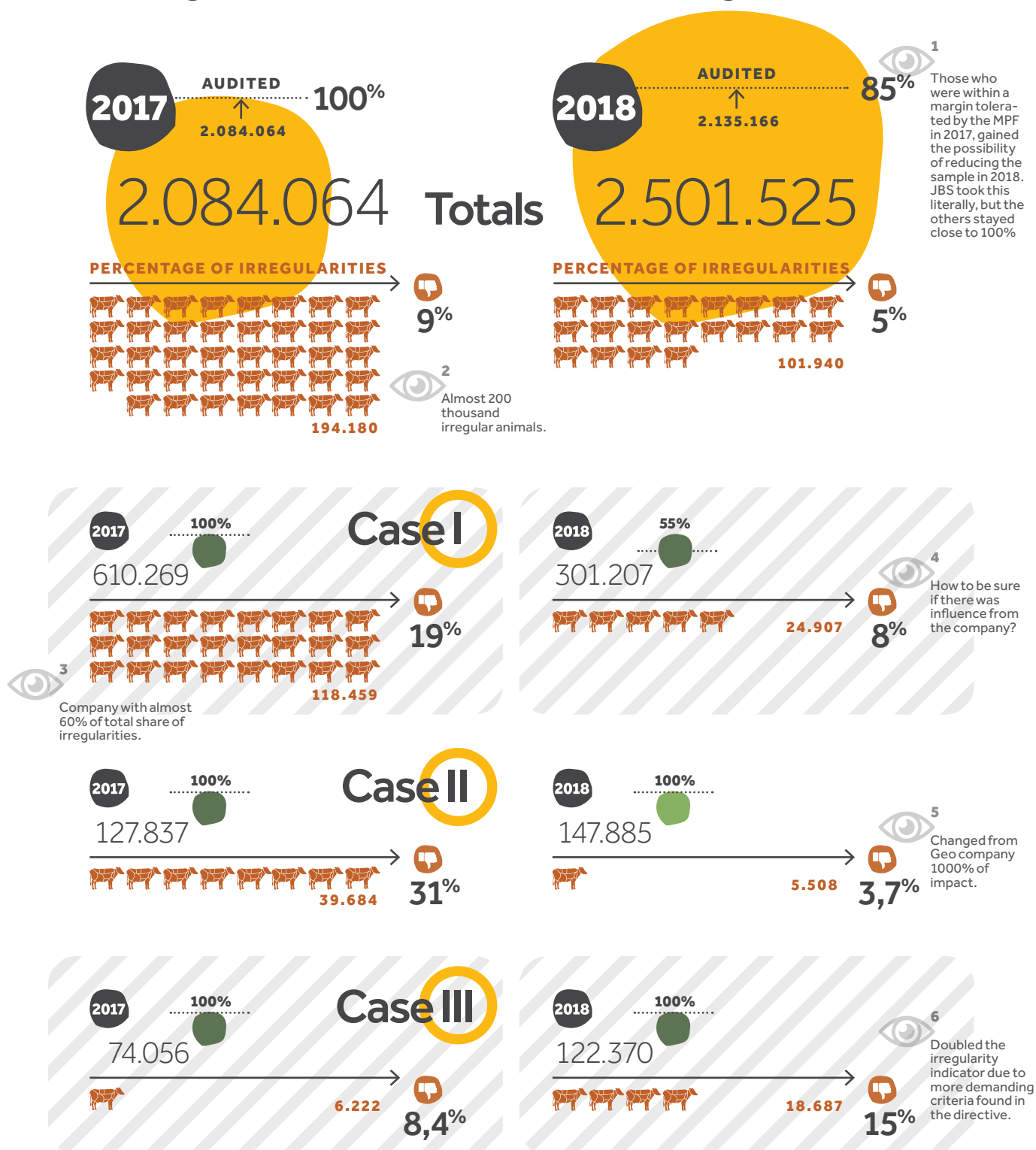
The differences between the volume of irregularity for 2016 and 2017 in the case of JBS, were surprising. There are two probable justifications for the 2017 results being different from the 2016 findings: change in purchase criteria for the meatpacking company with an increase in rigor for its analyses, or simply a reduction in the number of irregularities due to the protocol defined by the MPF for audits performed in 2018, which, among other changes, established the possibility of an audit being performed with a sample composed of 50% of cattle purchased from the largest suppliers and 5% coming from the remaining suppliers.

That sampling stratification for 2017 does not seem to have been enough to obtain a quantity representing all the JBS suppliers. A sizable share of the small properties that supply the company's industrial plants may not have been duly covered by the sampling, which may have generated a non-compliant number quite different from the one found for the previous year. The same did not occur with Frigol, which, upon performing a 100% audit of data for the same years (2016 and 2017), kept its non-compliance rate stable. Both possibilities, noted above to explain the difference in irregularities related to the JBS case, need to be better investigated to confirm if activity by the company and/or the audit methodology established by the MPF had any influence on the findings.

For the purposes of this report, the number of properties and their areas involved in that irregular productive process was not investigated, but determining the extent of the problem in terms of hectares or square kilometers is quite relevant in the search for solutions to deforestation.



Figure 4: Total of audits and notes regarding 3 cases with significant variations in the level of irregularities.



Geo Company: Agrotools Niceplanet Equivalent to 5 thousand irregular animals 🐄 = 5 thousand
 Note: Companies that have not yet signed the TAC may have even larger numbers of animals not in compliance with the law.



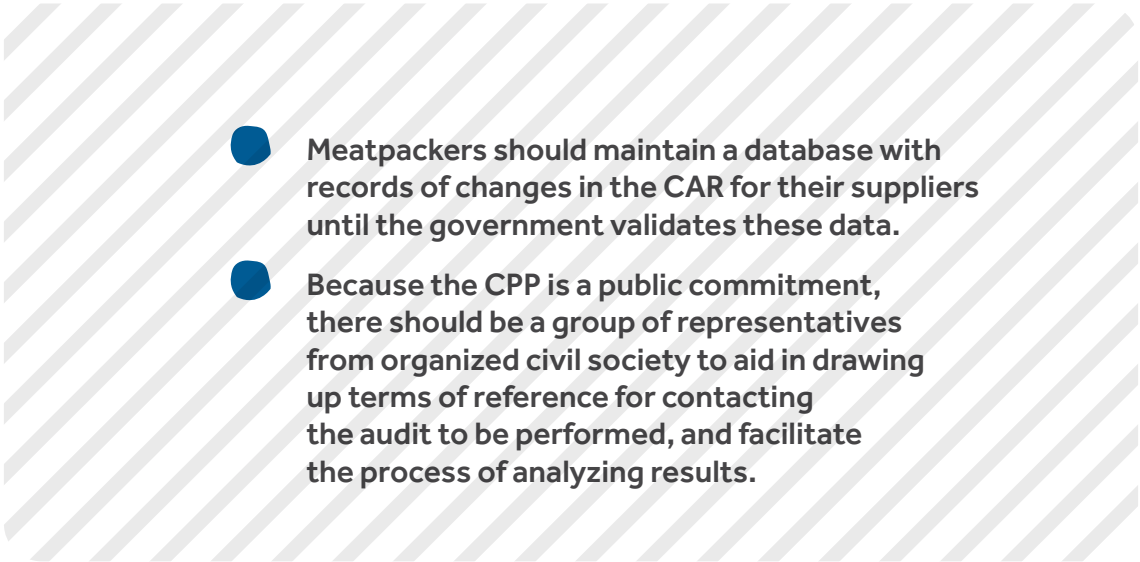
FINAL CONSIDERATIONS

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This report was produced with data and results of the audits done at the meatpackers that signed the TAC and/or CPP in 2017 and 2018, in order to assess their deliveries on their commitments.

Main recommendations:

- Based on the experience with audits performed as part of the Beef TAC in Pará, the other MPFs in the states that have set up the TAC should implement annual monitoring systems to assess the performance of the signatories.
- To guarantee more reliable results, the CPP audit should include a procedure similar to that of the TAC to assess whether cattle suppliers meet commitment requirements.
- The monitoring companies contracted by meatpackers play a crucial role in the companies' socio-environmental performance. Those monitoring companies also need to undergo thorough analytical processes, as does the TAC audit. It is important for the meatpackers to retain a professional who can regularly perform independent analyses of the supplying properties in order to assess the results presented by the companies contracted to perform geomonitoring services.

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- Meatpackers should maintain a database with records of changes in the CAR for their suppliers until the government validates these data.
 - Because the CPP is a public commitment, there should be a group of representatives from organized civil society to aid in drawing up terms of reference for contacting the audit to be performed, and facilitate the process of analyzing results.

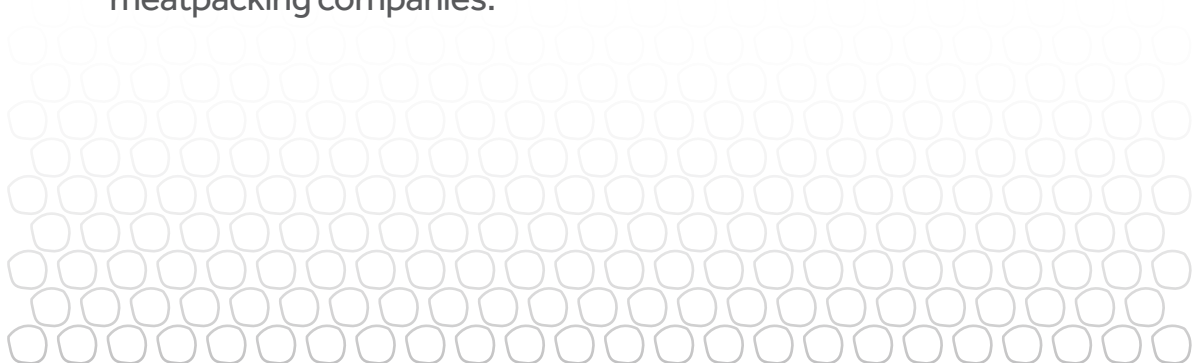
Both agreements are important in the effort for containing deforestation in the Amazon; however, after ten years, one can find significant differences between them. As seen throughout this paper, because it involves a larger number of meatpackers and has a more robust auditing methodology, the TAC presents more effective and reliable results in meeting its terms, especially considering that the MPF performs a process for reviewing and discussing the data before they are validated and published. Things are different with the CPP, especially in the current context where Greenpeace has withdrawn from the group that manages the CPP, meaning that the “commitment” has become simply another traditional business audit.

Analysis of the data by the Amigos da Terra team has highlighted the important role of the monitoring companies contracted by meatpackers to avoid the purchase of cattle originating from “noncompliant” ranches. The independent audits, with the TAC and CPP, were the answer to the challenge of monitoring processes and practices by the signatory companies. They are, in fact, good tools; however, they must have their processes updated, expanded and also controlled.

The performance of meatpackers is being assessed and the next step should be to evaluate the companies providing geomonitoring services and audits, especially considering their highly relevant role in informing policies and practices for socio-environmental responsibility for their clients. These geomonitoring organizations also serve large banks, retail chains, grain traders, food industries and other major agriculture and livestock producers. It was thus concluded that applying some mechanism for evaluating systems, practices and governance by these monitoring organizations would be appropriate.

After ten years of existence for the TAC and CPP and their efforts in controlling deforestation and social injustices, the lesson learned is that protocols and/or written agreements alone do not guarantee the results they seek to achieve. Therefore, robust tools are needed for the purpose of monitoring and evaluating their application and also for assessing results so that the necessary adaptations for continuous improvement of business practices may continue to advance.

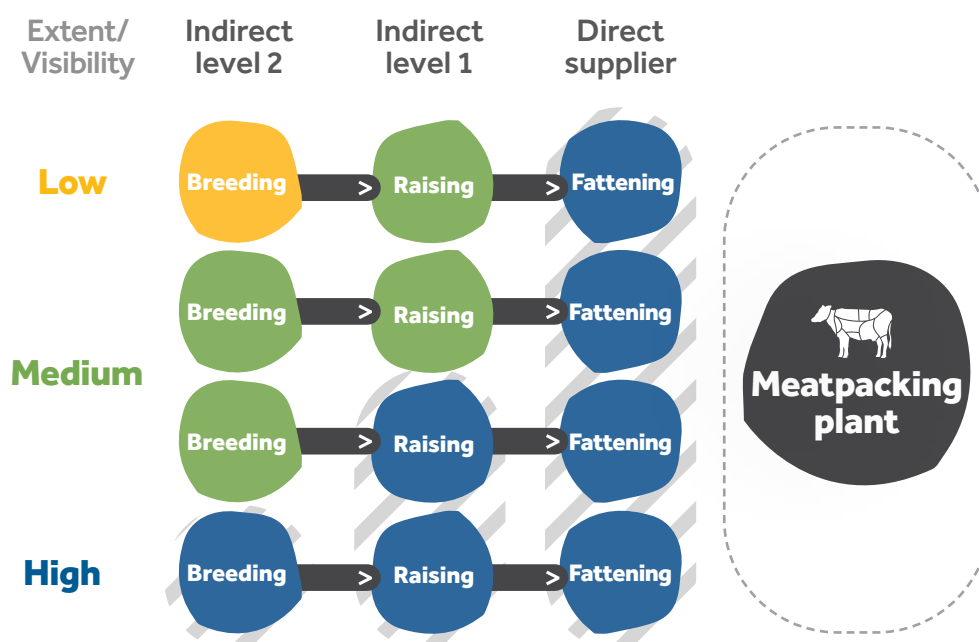
There is an evident need to expand the reach of the audit concept and establish participatory systems for evaluating the performance of companies that have a high level of externalities being produced, as happens with organizations in the ranching and beef sector. Thus, the relevant stakeholders in the ranching sector need to focus on building a system for evaluating and classifying the geomonitoring companies that provide services for meatpacking companies.



APPENDICES

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Appendix 1: Possibilities for flow of cattle inside the supply chain and degree of visibility



Source: Adapted from Briefing 09 on Produção Responsável e Compra Responsável do Proforest – Monitoramento Socioambiental da Pecuária no Brasil (Responsible Production and Purchasing with Proforest – Socioenvironmental Monitoring of Ranching in Brazil).

Appendix 2: Terms and Definitions

Rural Environmental Registry (Car, Cadastro Ambiental Rural). In 2010, the Brazilian government made it mandatory that all rural properties be mapped and registered in a database, known as the CAR (Cadastro Ambiental Rural or Rural Environmental Registry). The CAR database holds geospatial data on property boundaries as well as environmental information on rural agricultural production. This database is intended to be a strategic tool for controlling, monitoring, and reducing deforestation in Brazil. From a supply chain perspective, the CAR represents an effective tool for increasing transparency of ranch-level practices.

Animal Transit Guide (GTA, Animal Transportation Permit). In 2006, the Brazilian government passed legislation requiring documentation to monitor the movement of livestock. The official document for animal transport in Brazil is the GTA (Animal Transportation Permit or Animal Transit Guide). The GTA contains information about the age and gender of animals, vaccination history, the origin, destination and purpose of their transport, as well as information about the buyer and seller. Until recently, the GTA has been used almost exclusively for phytosanitary purposes, but has significant potential for supporting improved traceability and enhanced supply chain assurances for Brazilian and international value chain actors.

Appendix 3: Acronyms and Abbreviations

CAR. Rural Environmental Registry
CPP. Public Commitment on Cattle Ranching
EMBRAPA. Brazilian Livestock and Agricultural Research Corporation
FUNAI. National Indian Foundation
GTA. Animal Transportation Permit
IBAMA. Brazilian Environment and Natural Resources Institute
INPE. National Institute for Space Research
ICMBio. Chico Mendes Institute for Biodiversity Conservation
MPF. Federal Prosecution Office
OEMAs. State Environmental Agencies
PRODES. Program for Calculating Amazon Deforestation
SEMAS. State Secretariat of Environment and Sustainability
SICAR. Rural Environmental Registry System
SIE. State Inspection Service
SIF. Federal Inspection Service
SIT. Labor Inspection Sub-secretariat
TAC. Terms of Adjustment of Conduct

Appendix 4: List of current TAC signatories in Pará

AgroExport (Moju)

AgroExport (Tailândia)
BR Comércio de Carnes
Casfrisa
Coagro

ForteFrigo

Frigobel
Frigol (Água Azul do Norte)
Frigorífico Aliança
Frigorífico Altamira
Frigorífico Arrudão
Frigorífico Ribeiro
Frigorífico Rio Maria
Frigorífico Santa Cruz (Altamira)
Frigorífico Santa Cruz (Ananindeua)
Frigorífico Santa Cruz (Marabá)

Frigorífico São Francisco

Frigosul – Cruzeiro do Sul

JBS (Eldorado dos Carajás)¹⁹

JBS (Marabá)

JBS (Redenção)

JBS (Santana do Araguaia)

JBS (Tucumã)

M. R. Souza Junior

Mafrinorte - Ativo Alimentos

Masterboi

Mercúrio Alimentos (Castanhal)

Mercúrio Alimentos (Xinguara)²⁰

Minerva Foods

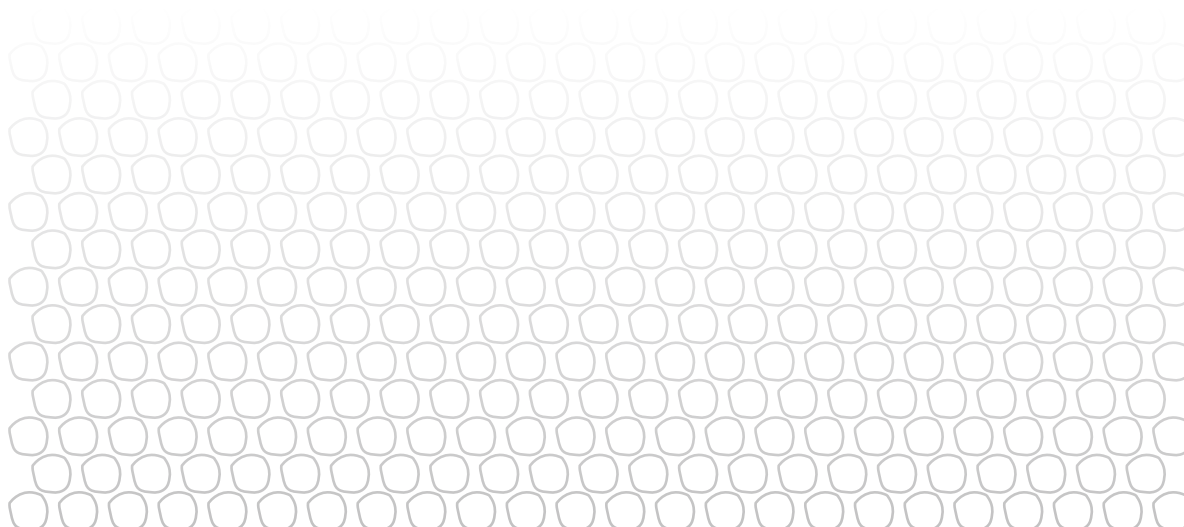
Socipe

Wellard Brasil

Xinguara

Note: The meatpacking plants in **green** were cited in table 4.

Source: Data obtained from Monitac (2020), site http://monitac.oeco.org.br/wordpress/?page_id=162, in 13 Feb. 2020.



¹⁹. According to Monitac, this meatpacking plant is inactive. ²⁰. Monitac does not count the Mercúrio plant in Ananindeua, probably because it operates only as warehouse, and slaughtering does not occur there. However, according to the MPF (2019), it was audited in 2018, and was thus included in Table 4 of the current report.

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