Establishing a Purchase Control System

Beef Toolkit
Briefing Note 04

Version 1.0

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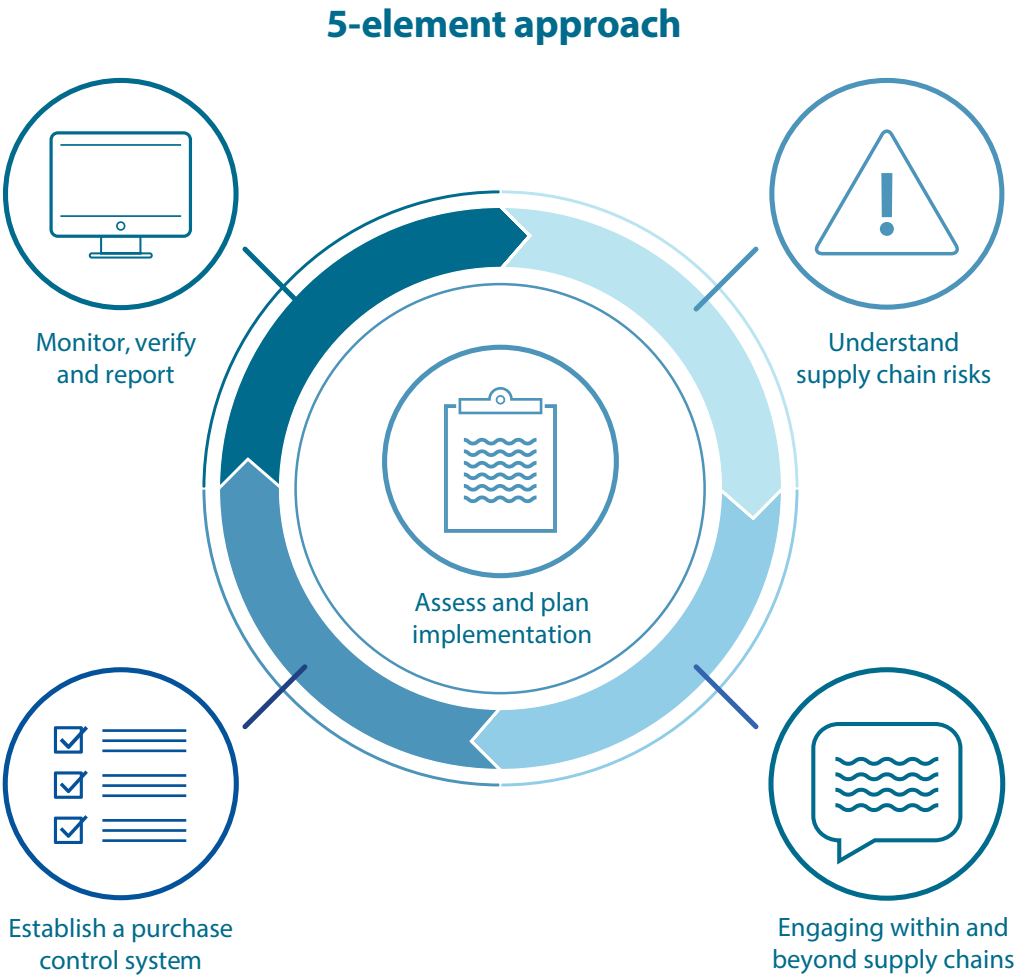


Figure 1 - A 5-element approach for sourcing environmentally and socially sustainable beef

Key Points

- Purchase Control Systems operationalise legal, social and environmental screening of beef producers
- Automatic purchase control systems can alert meatpackers to policy and compliance irregularities
- By flagging policy breaches and defining pathways to both prevent purchasing from non-compliant suppliers and to positively address issues of non-compliance, meatpackers can accelerate the implementation of responsible sourcing policies on the ground

Purpose of this briefing note

This briefing note is part of the Responsible Sourcing: A Beef Toolkit guide, a 5-element approach for sourcing environmentally and socially sustainable beef (**Figure 1**), and Establishing a Purchase Control Systems is one of them. Companies that purchase beef may have responsible sourcing policies in place that define social and environmental principles and criteria for their sourcing. Purchase control systems can help screen for non-compliance against those policies, enabling buyers to take appropriate action and thus deliver on their policy commitments.

The briefing note outlines key steps and tested tools that companies in the beef sector can take to effectively translate policy requirements into systems that flag non-compliance at production level.

This can then trigger actions to not only ensure policy compliance but also to foster positive change. The focus is on companies buying directly from producers and builds on tools and approaches that are being used in Brazil for monitoring and assessing beef producers. The information presented in this document is also useful for downstream companies as it provides a better understanding of the challenges their cattle suppliers face, and also what is possible to expect from them, since it sheds light on the potential solutions for implementing responsible sourcing policies with the help of purchase control systems. Moreover, this briefing note aims to provide a basis for dialogue between upstream and downstream companies on goals and agendas.

The main topics covered are:

1. **Definition of purchase control system**
2. **Key steps and tools for implementing these systems (including determining the minimum requirements, setting a monitoring system and reintegrated suspended suppliers)**
3. **Key challenges during the system implementation and use, and potential solutions**

01 What is a purchase control system?

Purchase control systems (PCS) aim to verify the compliance of a purchase against a company's purchasing policy. They are practical tools that allow companies to monitor and verify defined criteria during the purchasing process.

Usually this relies on basic information from the cattle suppliers, like the ID number of the cattle supplier and/or any geographical reference to the farm of production. In Brazil's context, the CPF (an individual taxpayer identification number) and the CNPJ (the number for a business entity) are the ID numbers that link to the supplier, whilst the CAR number (the Rural Environmental Registry) and the Animals Transit Guide (GTA) refer to the farm[1]. With that information, a cross-check of the public data (manual or automatic) allows companies to identify suppliers with non-conformities. The details on this process will be presented in the following sections.

Identifying these non-conformities enables purchasing to comply with commitments, but it may also enable collaboration between the company and non-conforming suppliers in order to address non-compliances and enable performance improvement.

The PCS approach identifies a system that can be used by upstream companies to scrutinize cattle ranchers. However, this approach is also useful for downstream companies, since it provides a basis for them to assess their suppliers' PCS as a way to monitor progress against their own commitments.

02 Key steps and tools for implementing purchase control systems

The following flowchart (**Figure 2**) shows the steps to implement a PCS.

Figure 2: Key steps to set a purchase control system

2.1 Defining databases to check minimum requirements

A PCS aims to screen cattle producers based on policy criteria, triggering specific actions depending on the producers' performance. The minimum requirements usually cover legal requirements and beef buying company commitments, for example halting deforestation and upholding human rights in the supply chain. The requirements are set considering the following:

- The technical feasibility of incorporating monitoring as part of the standard procedure for purchasing from beef producers
- The financial impacts on the business
- The impacts they will have on producers and supply chains (potentially positive and negative)
- The support necessary for producers to meet all the criteria

After defining the minimum criteria, it is crucial to identify the available databases related to each purchasing criteria and to assess these databases in terms of:

- **Reliability:** is the source recognised as reliable by the stakeholders interested in the topic? Does it meet or is it comparable to criteria established by any standard/certification initiatives and public commitments?
- **Frequency of update:** is the frequency of data updates enough to be used in an automatic system?
- **Format of the data:** is the data easily accessible for use in terms of format and storage?

Also, the company will need to check if the public data is enough to assess the criteria or if additional measures (. e.g. field verification or specialist consultation) are needed to evaluate the criteria.

These systems can be audited by third parties, such as auditing companies or by official government audits. In Brazil, the Public Prosecutor's Office publicly audits meatpackers that source cattle in the Amazon using the Protocol for Monitoring Cattle Suppliers in the Amazon[2].

2.1.1 The Case of Brazil

In Brazil, large meatpackers have set criteria related to deforestation and social and environmental violations.

To assess these criteria meatpackers are cross-checking cattle suppliers against official lists and against geographic information.

Cross-referencing, through tabular analysis, can include checking suppliers against:

- Governmental lists of areas embargoed by the Brazilian Institute of the Environment and Renewable Natural Resources, IBAMA or by the states' environmental institutions, called "Órgãos Estaduais de Meio Ambiente (OEMAs)"
- The Slave Labour List of the Brazilian Government;
- Rural Environmental Registry (CAR)[3];
- Rural Environmental Licensing (LAR), where applicable;
- Animal Transit Guide ("Guia de Trânsito Animal – GTA" in Portuguese);

Geographic analysis can also include checking farms against:

- Overlays with Prodes[4]
- Overlays with Indigenous Territories
- Overlays with Protected Areas

Together, these criteria comprise an analysis of territorial and non-territorial information. If producers are flagged as breaching any of the above-mentioned criteria, an automatic system can prevent the purchase from going through.

Due to the Cattle Agreement (Compromisso Público da Pecuária - CPP) and the Terms for Adjustment of Conduct (Termo de Ajustamento de Conduta - TAC[A]), many slaughterhouses, including the three biggest operating in Brazil (Marfrig, JBS, Minerva), have put together purchase control systems that follow the framework presented above[B].

It is important to note that so far these geographic criteria are applied for the Amazon only, and that for other biomes, like the Cerrado, only the lists (Embargoes List and Slave Labour List) and CAR are being verified. However, Marfrig is already expanding the whole system to the Cerrado, which is expressed in their Partnership Objectives, as detailed in **Box 1**:

Box 1 – Mafrig's commitment on Cerrado

1

D2. Expand the monitoring system used in Amazon biome and adopt the purchase policy adapted to Cerrado biome

Achieve 100% of the direct suppliers in Cerrado biome covered by Marfrig's monitoring system

Deadline: 2022

D2.3 Develop and validate the criteria to block non-compliant direct suppliers

Marfrig's purchase policy revised and adapted to cover the suppliers in the Cerrado biome

Deadline: 2023

Source: https://www.marfrig.com.br/static/pdf/sustentatbilidade/plano-marfrig-verde/Marfrig_Sustainability_BOA.pdf

[A] Cattle Agreement (Compromisso Público da Pecuária - CPP) is a public commitment signed by meatpackers and promoted by Greenpeace, and the Terms for Adjustment of Conduct (Termo de Ajustamento de Conduta - TAC) is a legally binding action plan to come into compliance with the law, signed between the public prosecutors' office and each slaughterhouse.

[B] Amigos da Terra (AdT), 2020. Tac da carne no Pará e Compromisso Público da Pecuária - A Importância da Rastreabilidade da Carne na Redução dos Desmatamentos na Amazônia. Available at: **https://www.amigosdaterra.org.br/wp-content/uploads/2020/08/ADT-tac-compromissos_final.pdf**

In 2020, the Monitoring Protocol for Cattle Suppliers in the Amazon[11] was launched with the aim of harmonizing existing commitments on the cattle sector in the Amazon. It considers all the cited criteria mentioned above. This protocol is applied to the signatories of the Cattle Sector TAC (Pará), the Legal Beef TAC (Legal Amazon) and the Beef Public Commitment (Amazon biome), in other words, meatpacking and retail companies and uses a binary approach in which beef suppliers operating there are assessed for deforestation[C].

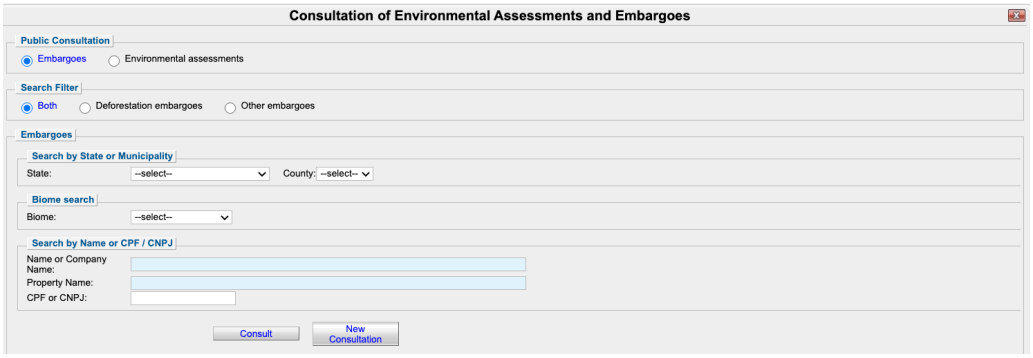
In addition to those criteria, the protocol includes productivity criteria that help to address the risk of cattle triangulation[D]

Some of the public databases are displayed in **Box 2, 3,** and **4**.

Box 2 – Databases to assess deforestation

2

IBAMA makes available a list of farms and farmers that have breached environmental legislation in some way, including illegal deforestation. In Brazil, it is forbidden to source from embargoed areas until they normalise their situation. Meatpackers can crosscheck their cattle suppliers against this list. The embargo information is updated daily, using site visits by law enforcement agencies.



IBAMA spots farms where illegal deforestation has been identified through satellite images, flyovers and field visits. However, the IBAMA's list only covers the farms that have been through the whole process of IBAMA's surveillance. For this reason, Prodes, which also monitors the Brazilian Amazonian forest and Cerrado by satellite, can be used to detect situations where there might be deforestation..

The difference is that IBAMA database can be searched with the supplier's ID, while the Prodes database requires the polygon or point location of the farm.

https://servicos.ibama.gov.br/ctf/publico/areasembargadas/ConsultaPublicaAreasEmbargadas.php

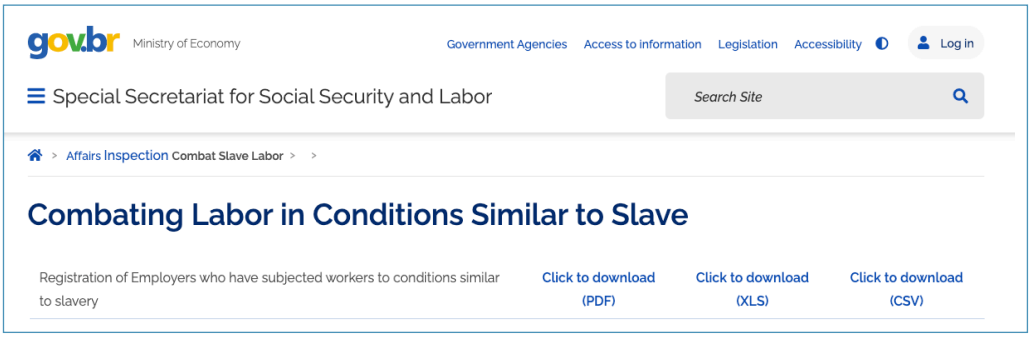
[C] Brazilian Coalition on Climate, Forests and Agriculture, 2020. Beef Chain Traceability in Brazil - Challenges and Opportunities" - Final Report and Recommendations. Available at: **http://www.coalizaobr.com.br/boletins/pdf/Beef-Chain-Traceability-in-Brazil-challenges-and-opportunities_final-report-and-recommendations-v2.pdf**

[D] 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.(…) At the time a lot is sold to a meat-packer, 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' (…)" (4th Council for the Environment and Cultural Heritage with participation of meat industry and retailers, and Imaflora's support, 2020).

Box 3 – The list of slave labour

3

The Brazilian Government makes available a public list of farms (and other enterprises) where their agents have liberated workers from practices characterised as slave labour or slave-like labour conditions. Meatpackers and downstream meat buyers can crosscheck their cattle suppliers against this list, which is usually updated monthly. This is one, but not the only way, to avoid forced labour in the beef supply chain, since it could be happening in farms not visited by the Public Ministry through their surveillance operations.

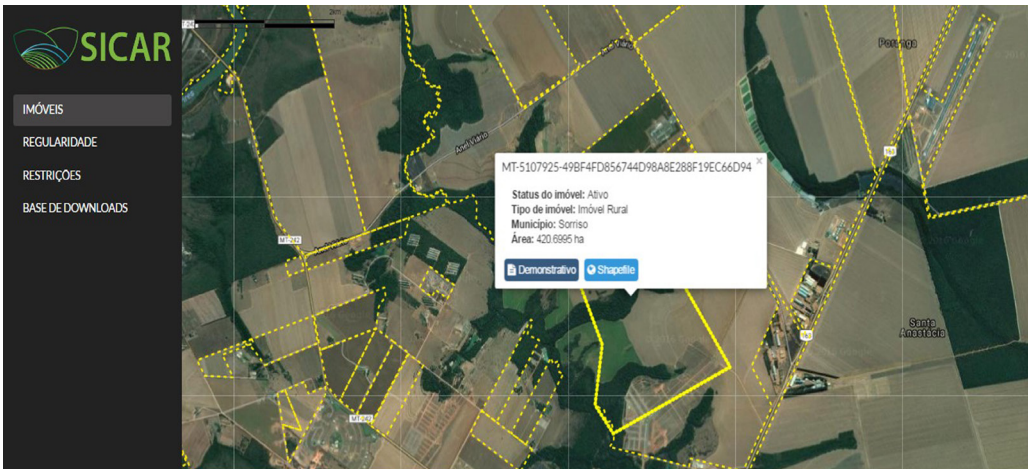


https://www.gov.br/trabalho/pt-br/assuntos/fiscalizacao/combate-ao-trabalho-escravo

Box 4 - Rural Environmental Registry: the first step to comply with The Brazilian Forest Code

4

To be compliant, all rural properties in the country have to be enrolled in the Rural Environmental Registry (CAR, in Portuguese). This is an electronic registration of the boundaries of rural properties, which can be used as a tool to control, monitor and combat illegal clearing of forests and other types of native vegetation. Proforest's **Assessing compliance with the Forest Code: a practical guide** provides more information on the Brazilian Forest Code



The first step comprises a self-declaration from the landowner on the land's boundaries. Afterwards, the environmental agency must validate the boundaries declared by checking the documentation and neighbours' boundaries. This means that the most reliable information is found in validated CARs, rather than initial declarations. This differentiation can be checked on the CAR Platform.

https://www.car.gov.br/#/

Summary of existing tools to cover responsible sourcing requirements in the Brazil context:

Potential requirements	References
No breaches of legal environmental requirements	List of embargoes: official lists of farmers monitored by environmental agencies remotely (GIS information – Prodes) and through field inspections with irregular environmental issues detected. • IBAMA list of embargoes, available at: **https://servicos.ibama.gov.br/ctf/publico/areasembargadas/ConsultaPublicaAreasEmbargadas.php** • Information on embargoes from the Chico Mendes Institute for Biodiversity Conservation (Instituto Chico Mendes de Conservação da Biodiversidade, in Portuguese, is the administrative institute of the Brazilian Ministry of the Environment) available at: **https://www.icmbio.gov.br/portal/geoprocessamentos/51-menu-servicos/4004-downloads-mapa-tematico-e-dados-geoestatisticos-das-uc-s** • State environmental agencies list of embargoes
Not involved with illegal deforestation or land conflicts in the Amazon	Amazonia Protege List: official list of farmers with law processes related to illegal deforestation and land conflict, based on GIS information (Prodes data), **http://www.amazoniaprotege.mpf.mp.br/**
No deforestation in the Amazon biome	Prodes Amazônia: official information on Amazon deforestation http://terrabrasilis.dpi.inpe.br/app/map/deforestation . This platform only presents accumulated deforestation information. Data for specific years can be downloaded at: **http://terrabrasilis.dpi.inpe.br/en/home-page/** and requires GIS capability to be analysed. Deforestation Detection System (Sistema de Detecção do Desmatamento em Tempo Real – DETER, in Portuguese): daily deforestation alerts are presented by the Real-Time which is used by law enforcement agencies in Brazil. **http://www.obt.inpe.br/OBT/assuntos/programas/amazonia/deter**
No conversion in the Cerrado biome	Prodes Cerrado: official information on natural habitat conversion at the Cerrado Biome, **http://www.dpi.inpe.br/fipcerrado/** Cerrado Deforestation Polygon Assessment Tool (Cerrado DPAT): compilation of deforestation detected by the systems PRODES-Cerrado and DETER-Cerrado, **https://www.cerradodpat.org/#/**
No forced labour	Dirty list of forced labour: official list of farmers monitored by public agencies with forced labour-related issues detected, **https://www.gov.br/trabalho/pt-br/assuntos/fiscalizacao/combate-ao-trabalho-escravo**
Compliance with the Brazilian Forest Code	Every single rural property needs to be enrolled in the Environmental Registry (CAR) System. Companies can request an active CAR number. Registries available at: **http://www.car.gov.br/publico/imoveis/index**
No overlays with indigenous territories	Information on indigenous territories available at: FUNAI: public agency responsible for indigenous issues, **http://www.funai.gov.br/index.php/shape** Instituto Socioambiental (ISA) Platform: a compilation of data on indigenous land **https://terrasindigenas.org.br/**
No overlays with settlements and quilombola territories	Information on settlements and quilombola territories available at: INCRA: public agency responsible for settlements http://certificacao.incra.gov.br/csv_shp/export_shp.py

2.2 Setting a monitoring system

Automatic systems, using publicly available data (such as the ones discussed above), are usually the best option for companies which source from a vast number of suppliers. However, it requires investment in IT (information technology) solutions.

After defining the databases to be used, it is best to set out how the monitoring system will work (**Figure 3**).

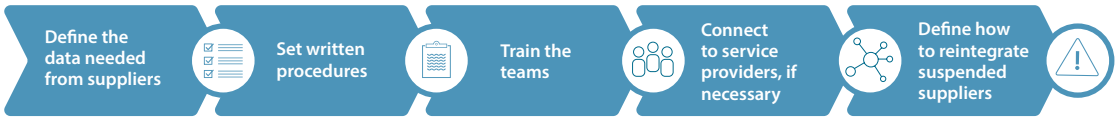


Figure 3: Key task to set a monitoring system

A Identify what supplier data is necessary to assess the databases (e.g. supplier identification number, farm geographical coordinates).

B Set written procedures linked to the system, defining:

WHO -
Roles of collecting suppliers' data, running the analysis, analysing suspended suppliers, reintegrating suppliers;

HOW -
Documents to be completed and validated, and actions to be taken;

WHEN -
Step-by-step flow;

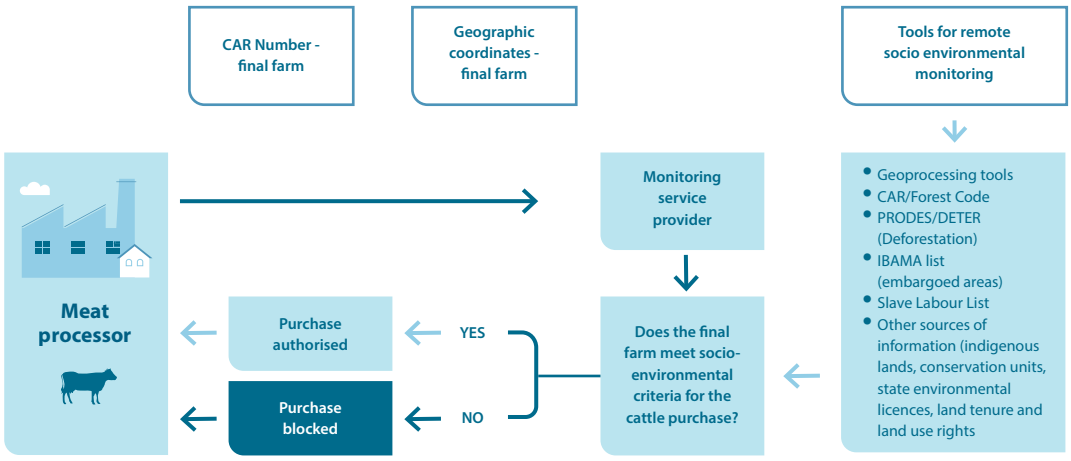
WHY -
Supporting material explaining the requirements.

C Train both sustainability and commercial teams according to the defined procedure.

D Link the monitoring system to the supplier's existing management system. In the case of an automatic system provide by a third-party organisation, check if there will be any need to connect the provider's system with companies' systems, such as invoice systems or contracts systems, to guarantee the flow of information (**Figure 4**). In this case, it is important to check if there is sensitivity in terms of data sharing.

E Before the system starts running, define what will happen to a supplier if found to be non-compliant. Non-compliant suppliers should be engaged and investigated further (see section 2.3) before any decisions are made around suspension. Consider that false positives can happen, so the engagement of non-compliant suppliers should allow them to appeal if they believe the system is wrong.

Figure 4 illustrates a flow of information between the meatpacker and the Geographic Information System – GIS – service provider. This is a generic flowchart; there are cases in which other service providers also participate in the flow of information.



Source: ***The Proforest Briefing Note 09: Socio-environmental monitoring of the cattle sector in Brazil****, where 'final farm' means the last farm before the slaughterhouse.*

Figure 4: Flow of information between the company and the service provider

There are several service providers in Brazil that support companies to set their purchase control system. They provide a platform where the company procurement/sustainability team inserts the supplier's data (for example, the ID, or the ID and the farm geo-reference), and the platform cross-checks the public databases.

It is important to note that purchase control systems are unlikely to be sufficient to fully cover the commitments set by the company. This is due to the fact that they only cover direct suppliers (see Briefing Note 1 'Understanding the Beef Supply Chain') and also due to gaps in publicly available data. Therefore, the company needs to define complementary means of monitoring and verification, which can include setting a framework to engage and analyse indirect suppliers (see an example in **Box 5**) in combination with the purchase control system.

Once the monitoring system is set, cattle suppliers can be assessed.

Box 5: JBS blockchain **5**

JBS is establishing a blockchain system to trace cattle to the farm where they were raised. This system will cross-reference information about the company's suppliers with livestock transportation data. More information is available at:

https://jbs.com.br/juntospelaamazonia/en/initiatives/jbs-green-platform/

The **Operational Guidance on Monitoring and Verification** of the Accountability Framework Initiative is a good reference to build a complete monitoring & verification system and **Briefing Note 09: Socio-environmental monitoring of the cattle sector in Brazil** from Proforest explores general aspects of monitoring systems in the beef sector.

The Collaboration on Forests and Agriculture's (CFA) **Regional Guidance for Advancing Deforestation-Free and Conversion-Free Beef, Leather,and Soy Supply Chains in the Brazilian Amazon and Cerrado and the Gran Chaco of Argentina and Paraguay** is another reference that sets aligned definitions that could inform the company's policy development and consequently the PCS development.

2.3 Reintegrating suspended suppliers

Having clarity on what happens when a non-compliance is flagged is instrumental to support fast decision-making when implementing policy commitments. Decision-making flowcharts usually help with this process.

Non-compliance typically leads to automatic suspension of purchases. However, simply blocking purchases and de-listing non-compliant suppliers can create additional hurdles for meatpackers who need to procure raw material volumes and will then face a reduction in supply. Nor does it solve the social or environmental issues on the ground, since cattle producers can find alternative cattle buyers with less stringent policies. Therefore, when a beef producer is flagged by the purchase control system, it is good practice to try to ascertain the following:

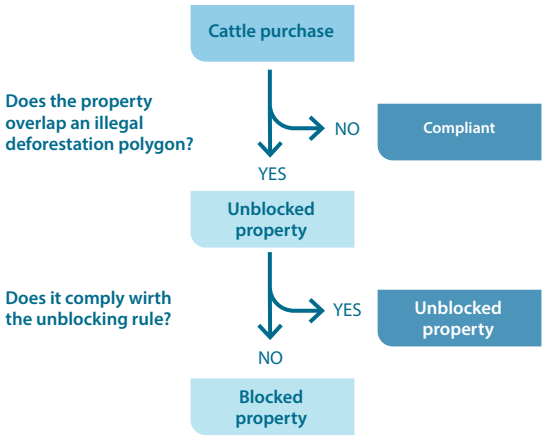
- What is the issue identified?
- What are the possible root causes?
- Is the non-compliance confirmed by further scrutiny, e.g. through an individual assessment of automatic detections, or even a site assessment to verify gross breaches? (Bear in mind that for issues that can be identified using satellite images, site assessment is usually the second-best option. It is easier to be certain of the extent and relative location of deforestation via GIS, than on the ground.)
- Is it an issue that can be solved in the short to medium term (e.g. the first step towards compliance with the Brazilian Forest Code: getting registered into the Rural Environmental Registry)?

Depending on the case, the best approach for achieving a company's sourcing needs and sustainability goals should be to engage with the non-compliant cattle supplier, providing support so they can go on to achieve full compliance. An action plan with measurable indicators and a reasonable timeline for bringing the supplier into compliance with the buyer's corporate policy can be mutually agreed.

The **Monitoring Protocol for Cattle Suppliers** in the Amazon suggests requirements to resume purchasing from suspended suppliers. The buyer should monitor the implementation of the action plan, reassess the supplier's compliance, and reintegrate the cattle supplier into the supply chain once the minimum criteria are met (see an example on Box 6).

Box 6 - Example for Unblocking Non-Compliant Properties Regarding Embargo's Criteria

6



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

Source: https://www.beefontrack.org/categoria/monitoring-protocol/

03 Key challenges and potential solutions

Challenges	Potential avenues to be explored
Engaging procurement teams. Sustainability requirements increase the complexity of purchasing decisions, so it is crucial that procurement teams understand the importance and value of this, and are completely on board with its implementation.	• **Buy in, support, and communication from the leadership about companies' commitments** • **Clearly explain responsible sourcing criteria on the internal corporate policy** • **Include activities in the job description of procurement teams, as well as KPIs linked to responsible sourcing programme targets** • **Make sure that everyone involved in responsible sourcing activities have enough time, capacity and a clear mandate.** • **If possible, automate the screening of minimum social and environmental criteria and the decision to allow purchase or not, to support and make procurement more efficient**
Non-compliant farmers or farms can breach the system by sharing misleading data with meatpacker	• **Ensure that the information from the property owner is the one being captured by the system. The list of IBAMA embargoes and the MPT Slave Labour List are both related to the property owner; however, that is not always the same person with whom the commercial transaction is made**
	Run additional checking to identify the risk of triangulation, like: • **Checking compliance from the additional landowners for the same farm of sourcing, from relatives to the supplier, and lessees.** • **Considering if the ratios of cattle production: production area are within the average of the sector.**
Lack of clear criteria outside the Amazon	• **Set clear criteria according to the different regions of sourcing.** • **Proforest and Imaflora are developing a voluntary protocol for the Cerrado by June 2021, that can support companies to move forward with the Cerrado monitoring.**
The complexity of the cattle supply chain (e.g. thousands of farms, spot market, difficult access) makes it a **challenge for meatpackers to engage with farmers** on any continuous improvement programme or to support their reintegration process	• **Prioritise suppliers using scorecard methodologies and risk registers** • **Consider developing or engaging on landscape and sectoral initiatives. Joining forces, on a pre-competitive basis, to overcome those difficulties are potential paths to deal with complexities of the supply chain.**

The usefulness of purchase control systems for downstream companies

These good practices and resources are mainly directed at upstream companies that are already working to align their systems to their customers' needs. Downstream actors can assess their upstream suppliers' PCS as an indicator to track progress on their own commitment and can build on these systems with their own requirements, aligned with those of their suppliers. They should ensure alignment on the minimum requirements for beef producers and what goes beyond that will be subject to commercial negotiations. A minimum level of disclosure should be agreed by the slaughterhouse around their purchase control systems, and aggregate results can help downstream companies monitor the implementation of their own commitments on beef sourcing. Responsibilities differ according to the company's position in the supply chain: the purchase control system needs to be implemented by those upstream companies in direct contact with farmers, and this will help downstream companies deliver on their commitments.

Although purchase control systems may not be sufficient to assess companies' full commitments, they are important tools for implementing responsible sourcing practices, as they enable standardised means of assessment, and if automated they can run assessments for large supply bases efficiently.

Learn more and help us improve

More information is provided in the references below and at **www.beeftoolkit.net**

Please also share with us information that will improve this Briefing Note (via **beeftoolkit@proforest.net**).

Acknowledgments

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Pedro Amaral (**Mars**)

Photo credits

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References

1 Animals Transit Guide (GTA) is a form required by the government that has to inform the cattle's movement from a farm to another one or to the slaughterhouse. It is used to track animal sanitation and health, and has been used as a reliable source of geographical information, since it includes details of the property of origin of the animals like supplier ID, farm ID, municipality and state. The model of GTA can be find at the link **https://www.gov.br/agricultura/pt-br/assuntos/sanidade-animal-e-vegetal/saude-animal/transito-animal/arquivos-transito-internacional/ModelodeGTA.pdf**

2 4th Council for the Environment and Cultural Heritage with participation of meat industry and retailers, and Imaflora's support, 2020. Monitoring Protocol for Cattle Suppliers in the Amazon. Available at: **https://www.beefontrack.org/public/media/arquivos/1597065710-guidelines_compliance_monitoring_protocol.pdf**

3 As a first step to comply with the Forest Code, producers need to enrol in the Rural Environmental Registry (CAR, in Portuguese). For more information, please see: **Assessing compliance with the Forest Code: a practical guide.**

4 The PRODES is a Brazilian government's project that monitors clear cut deforestation in the Brazilian Legal Amazon, and produce annual deforestation rates for the region since 1988. The Prodes for Amazon and Cerrado biomes can be assessed through the following link: **http://terrabrasilis.dpi.inpe.br/en/home-page/**

5 Indigenous territories are by federal law protected territories assigned to indigenous peoples, who can produce (cattle, included) on them. Information on Indigenous territories can be found on: **http://www.funai.gov.br/index.php/indios-no-brasil/terras-indigenas**.

6 Cattle Agreement (Compromisso Público da Pecuária - CPP) is a public commitment signed by meatpackers and promoted by Greenpeace, and the Terms for Adjustment of Conduct (Termo de Ajustamento de Conduta - TAC) is a legally binding action plan to come into compliance with the law, signed between the public prosecutors' office and each slaughterhouse.

7 Amigos da Terra (AdT), 2020. Tac da carne no Pará e Compromisso Público da Pecuária - A Importância da Rastreabilidade da Carne na Redução dos Desmatamentos na Amazônia. Available at: **https://www.amigosdaterra.org.br/wp-content/uploads/2020/08/ADT-tac-compromissos_final.pdf**

8 Replace with: The protocol was developed by 4th Council for the Environment and Cultural Heritage, with participation of meat industry and retailers, and Imaflora's support and was based on the following documents: Term for Adjustment of Conduct of Pará State (2009), Term of Adjustment of Conduct of Legal Amazon (2010), G4 Cattle Agreement - Minimum criteria for operations with cattle and bovine products on an industrial scale in the Amazon biome (2009) and Proposal for harmonised geomonitoring protocol of meatpackers (2009 – non-public document).

9 Brazilian Coalition on Climate, Forests and Agriculture, 2020. Beef Chain Traceability in Brazil - Challenges and Opportunities" - Final Report and Recommendations. Available at: **http://www.coalizaobr.com.br/boletins/pdf/Beef-Chain-Traceability-in-Brazil-challenges-and-opportunities_final-report-and-recommendations-v2.pdf**

10 "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.(…) 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' (…)" (4th Council for the Environment and Cultural Heritage with participation of meat industry and retailers, and Imaflora's support, 2020).

11 The protocol was developed by 4th Council for the Environment and Cultural Heritage, with participation of meat industry and retailers, and Imaflora's support and was based on the following documents: Term for Adjustment of Conduct of Pará State (2009), Term of Adjustment of Conduct of Legal Amazon (2010), G4 Cattle Agreement - Minimum criteria for operations with cattle and bovine products on an industrial scale in the Amazon biome (2009) and Proposal for harmonised geomonitoring protocol of meatpackers (2009 – non-public document).

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