



MEAT ROADMAP

The path to a
diligent chain
starting in Brazil

Partnership



Implementation



IMPLEMENTATION

Instituto Latino-Americano
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MEAT ROADMAP

Brazil holds the title of being the largest beef exporter globally, a feat attained at the cost of its local biomes, notably the Cerrado and the Amazon, along with their indigenous populations. It is not uncommon for companies in the livestock sector to be caught committing violations of labor, human and environmental rights. Given the significant impact of such a large sector on the country's economy and its international reputation, we have developed this material to elucidate the tools available to producers, slaughterhouses, retailers, wholesalers, investors, and the entire civil society. These tools are intended to encourage and promote diligent conduct at each stage of the livestock chain.





PRESENTATION





The agribusiness sector covers all economic activities related to the trade of agricultural products and appropriately diversifies into several subsectors, including livestock farming, dairy companies, grain producers, pesticide manufacturers, and shrimp farming, among others. Furthermore, this broad sector also involves the activities of retailers, wholesalers, distributors, and exporters.

Specifically, the Brazilian livestock sector stands out as the world's leading beef exporter, as stated in the 2023 Annual Report by ABIEC, with a 27.7% share of global exports in 2022. It also boasts the second-largest cattle herd worldwide, with over 202 million heads, accounting for 12.18% of the global total, trailing only behind India. Regarding beef production and processing, Brazil ranks second, following the United States.

Given its vast scale and importance, the agribusiness sector necessitates stringent safeguards and responsibilities. While meat production is a significant pillar of the Brazilian economy, it unfortunately also represents the largest contributor to global deforestation and the degradation of natural ecosystems.¹ The expansion of pastures, driven by deforestation in Brazilian biomes, especially in the Amazon and Cerrado, not only leads to the loss of native vegetation and local biodiversity but also poses significant threats to local communities. These communities, including indigenous peoples and traditional groups, face encroachments on their lands, undermining their subsistence, health, and leading to potential violent conflicts.

Furthermore, instances of livestock workers enduring conditions akin to slavery are alarmingly frequent. Reports highlight workers facing excessive hours, substandard living conditions, lack of access to basic services, labor debts, restricted freedom, coercion, and physical abuse.²

Given the complex issues in the livestock sector, which contributes significantly to the Brazilian economy yet is linked to potential human rights violations and environmental harm, it's critical and urgent to explore and implement practices, tools, mechanisms, and laws. These should ensure due diligence in human rights and environmental protection within the sector. This need is especially pressing in the context of global efforts to combat climate change effects.³

The financial sector can play a pivotal role in fostering a livestock chain devoid of environmental harm and human rights abuses. This sector's importance becomes evident as it leverages its capabilities to channel financial resources towards livestock businesses that embrace sustainable and socially responsible practices.

In this context, this document is the result of a collaboration between the Instituto Latino-Americano para Justiça Coletiva (Latin American Institute for Collective Justice) and the Instituto Clima e Sociedade (Climate and Society Institute), primary aiming to provide clear, comprehensive guidance for the effective implementation of due diligence throughout the livestock production chain, with a special emphasis on beef in Brazil. The document seeks to raise awareness about the human rights and environmental

challenges associated with livestock farming. It offers practical, actionable advice for producers, companies, and other stakeholders in the meat production chain. Furthermore, it strives to aid in identifying and mitigating potential risks, ultimately fostering a more ethical and transparent agricultural sector.

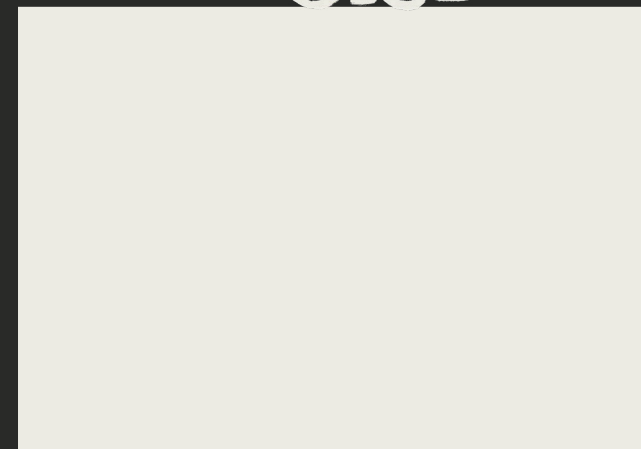


In business contexts, due diligence refers to a company's investigative process to identify and mitigate business risks. According to the OECD Guidelines for Multinational Enterprises, due diligence is framed as a set of risk-based recommendations. These guidelines underscore the necessity for companies to integrate mechanisms that monitor, evaluate, prevent, and mitigate potential harm caused by their operations. Concerning human rights and the preservation of a balanced environment, due diligence encompasses the detection, prevention, mitigation, and potential accountability of companies and financial institutions for adverse impacts on these values. Further details are available in [Devida Diligência: Para Além do Cumprimento da Lei](#). (In Portuguese, "Due Diligence: Beyond Compliance with the Law".)



FOR A DILIGENT LIVESTOCK CHAIN

RISKS,
REGULATIONS,
AND SUSTAINABILITY





Monitoring the risks within Brazil's livestock chain is crucial for several key reasons. Firstly, this sector plays a significant role in the Brazilian economy and employs millions of individuals. Consequently, any issues within its production chain can lead to both direct and indirect economic repercussions on a grand scale.

Regarding the risks in this chain, it's noteworthy that most regulations were initially established to address health concerns exclusively. The objective was to foster a trust-based relationship among animal breeders, the government and civil society regarding the origin and treatment of animals destined for consumption.^{4,5}

Currently, producers, slaughterhouses, retailers, wholesalers, investors, and civil society must monitor not only health risks but also environmental, social, and climate risks, which can lead to reputational, legal, and financial damage.

Livestock farming is closely linked to environmental and climate issues. Unregulated expansion, often involving deforestation and excessive natural resource use, contributes to environmental degradation, biodiversity loss, and increased greenhouse gas emissions, affecting both local biodiversity and global climate change efforts.

The social impact is another critical aspect. Cattle ranching is frequently tied to human rights concerns, such as labor exploitation and disputes over indigenous and rural lands. Ethically managing the livestock chain and respecting human rights is both a moral and legal imperative.

Moreover, as consumer awareness of sustainability and ethics in food production increases, the international market's demand for stringent production standards grows. Neglecting risks in the livestock chain could jeopardize access to international markets and damage Brazil's reputation as a food producer.

In Brazil, the rules and regulations related to livestock farming are established by the three powers of the State: Executive, Legislative and Judiciary. This regulatory complexity can make it difficult to create a unified, simple and transparent system to monitor and track livestock activity. However, the serious impacts resulting from negligence in relation to risks and national and international standards in the conduct and financing of livestock farming highlight the urgent need to adopt more sustainable practices at all stages of meat production.

In the next segments, we will explore in detail the main steps in this chain, as well as the regulations and guidelines in place aimed at ensuring that Brazilian meat can be produced in an environmentally responsible way, respecting human rights and local communities. The quest for more sustainable meat is a responsibility shared by producers, businesses, and consumers, and understanding the measures

and regulations in place is the first step to promoting a livestock industry that is economically prosperous, ecologically healthy and socially fair.



MEAT ROADMAP
FOR A DILIGENT
LIVESTOCK CHAIN



ENVIROMENTAL RISK

Deforestation for pasture expansion, water resource contamination from overuse of chemicals, and greenhouse gas emissions from animal farming.



SOCIAL RISK

Land disputes with local communities, labor rights violations, poor working conditions in farms and slaughterhouses, and food security issues for nearby communities.



LEGAL RISK

Failing to adhere to environmental, labor, or animal welfare laws can lead to legal actions and substantial fines.



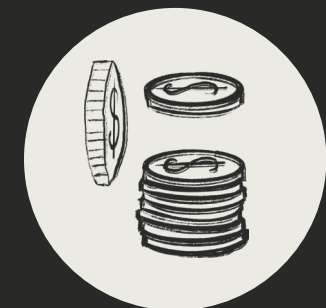
REPUTATIONAL RISK

Exposure of unsustainable or unethical farming practices can tarnish company and brand reputations, leading to customer and investor losses.



CLIMATE RISK

Livestock production's susceptibility to climate change, including extreme weather impacting livestock feed and water availability and disease proliferation.



FINANCIAL RISK

Beyond the aforementioned risks, which all carry financial consequences, producers reliant on operational financing face additional risks. Financial institutions may tie credit availability to proof of socio-environmental compliance.



THE PASTURE





THE RURAL PROPERTY

IN THE PASTURE, WHERE LIVESTOCK FARMING BEGINS ITS PRODUCTION CHAIN TO PLAY AN IMPORTANT ROLE IN THE GLOBAL ECONOMY AND FOOD SUPPLY, IT IS ESSENTIAL TO UNDERSTAND THE LAWS AND REGULATIONS THAT GUIDE THESE ACTIVITIES TO ACHIEVE LEGALITY AND GOOD SOCIO-ENVIRONMENTAL PRACTICES TO BALANCE THE PRODUCTION OF MEAT WITH ENVIRONMENTAL PRESERVATION, ANIMAL WELFARE AND SOCIAL RESPONSIBILITY.

IN THIS WAY, WE WILL EXPLORE EXISTING BRAZILIAN LEGISLATION THAT PLAYS A FUNDAMENTAL ROLE IN PROMOTING ENVIRONMENTAL BALANCE AND SOCIAL RESPONSIBILITY IN LIVESTOCK FARMING. TO DO THIS, WE WILL ADDRESS THE MAIN PHASES OF THE PRODUCTION CHAIN, OFFERING A COMPREHENSIVE, BUT NOT EXHAUSTIVE, VIEW OF THE REGULATIONS THAT GUIDE EACH PHASE. WE WILL HIGHLIGHT THE IMPORTANCE OF ADHERING TO THESE GUIDELINES TO BUILD A MORE SUSTAINABLE AND ETHICAL FUTURE IN THE MEAT INDUSTRY.



In the livestock breeding and grazing phase, it is crucial to ensure the activity's compliance with national legislation, starting with the rural property. This implies **possession of a valid property title** and compliance with all local and state laws. **Everyone involved in the meat production chain should consider this as a starting point to ensure diligent practice that mitigates potential risks related to human rights and the environment.**

To prevent the property from originating from land grabbing, it is necessary to verify the documentation at the competent Property Registry Office, since the existence of registration of the property, even if it is just the purchase and sale contract, is an indicator positive of the legality of its origin and acquisition. In addition to the registry records, it is important to check the location of the property, as it is essential to ensure that the rural property does not overlap with protected areas that do not allow this type of use, such as **Indigenous Territories** and some categories of **Conservation Units**. In this sense, it is also recommended to observe whether the rural property is in an area duly regularized by the Federal, State or Municipal Public Administration. This will help ensure compliance and sustainability of livestock farming.

- Conservation Units are divided into two main groups, according to their basic objective:
 - A. Full Protection Conservation Units: their basic objective is to preserve nature, not allowing the direct use of their natural resources.
 - B. Sustainable Use Conservation Units: their basic objective is to make nature conservation compatible with the sustainable use of part of its natural resources.



ANIMAL HEALTH CONTROL

Additionally, it is advisable to consult the Rural Environmental Registry (CAR) to check the property's compliance. THE CAR⁶ is a public registry that contains environmental information on rural properties and is mandatory for all rural properties with an area equal to or greater than one hectare, located in a rural area. In the CAR, detailed information must be found on the location, area, use and coverage of the soil, as well as the presence of permanent preservation areas and legal reserves, in addition to the activities carried out on the property. Through this information, it becomes possible to identify possible environmental irregularities and take the necessary measures to correct them.

Brazil's first law establishing control and monitoring over livestock activities was the Animal Health Defense Service Regulation, passed in 1934. This legislation required the mandatory reporting of any diseases to the official veterinary service, aiming to safeguard healthy herds from contamination.

In 2007, the Ministry of Agriculture, Livestock, and Supply (MAPA) introduced the **Guia de Trânsito Animal** (in Portuguese, Animal Transit Guide – GTA), a document designed to track and monitor the movement of animals within the livestock chain. **The GTA, mandatory for transporting live animals, must include details such as origin, destination, species, age, and the number of animals being transported.** Thus, a tool initially created for sanitary control has also become instrumental in monitoring and tracing animals for environmental compliance in livestock farming.

In 2018, MAPA introduced the Sistema de Identificação e Certificação de Bo-

vinos e Bubalinos (Cattle and Buffalo Identification and Certification System – SISBOV), an electronic system for tracking the origin and quality of beef and buffalo meat. Initially intended to be mandatory, the system became voluntary due to significant industry pushback. Currently, its use is mandatory only for exports, and even then, it only requires tracking the animal during the last forty days before slaughter or shipment. As a result, while it's crucial to keep animal information up to date to ensure the origin and quality of products from this sector, SISBOV is not required for all animals intended for human consumption in the domestic market.

Sanitary control, originally established solely to prevent contamination and diseases among animals and ensure the safety of human consumption, plays a role that extends beyond mere health concerns. A lack of vigilance in enforcing these standards can lead to environmental degradation, including

the contamination of water, air, and soil.⁷ Research^{8,9} has shown that groundwater contamination with nitrate from animal waste poses significant public health risks and can severely disrupt aquatic ecosystems through eutrophication.¹⁰

Beyond the adverse effects on human health and ecosystems and considering international political developments on climate change – given Brazil's significant role in bovine product exports and as the custodian of key global climate-regulating forests – the imperative for traceability extends beyond mere sanitary control to include deforestation monitoring. Consequently, there is a push for the integration of legal mandates with existing health and property management tools, such as the GTA (Animal Transit Guide) and CAR (Rural Environmental Registry), to establish a compulsory national traceability system. This system would guarantee the origin and quality of beef, encompassing not only

Producers selling to slaughterhouses must have their properties registered in the Rural Environmental Registry, possess approved environmental regularization plans, and comply with labor laws.





the health of the animals and compliance by establishments but also adherence to environmental preservation and conservation laws.

ENVIRONMENTAL AND CLIMATE COMMITMENTS

Given that the conversion of native vegetation for agricultural purposes is the leading source of greenhouse gas emissions in Brazil, it is crucial for the entire livestock sector to ensure compliance with environmental obligations.

In this regard, the Brazilian Federal Constitution, particularly Article 225, mandates that behaviors and activities deemed detrimental to the environment will subject violators, whether individuals or corporations, to criminal and administrative penalties. Moreover, since the enactment of the National Environmental Policy (PNMA) in 1981, there has been a clear provision for the liability of polluters, both direct and indirect, for environmental harm. The PNMA outlines several tools that can significantly aid in enhancing the environmental responsibility of the livestock industry, including:

- I. Assessment of Environmental Impacts;
- II. Licensing and review of activities with actual or potential pollution;
- III. Federal Technical Register of Potentially Polluting Activities and/or Environmental Resource Usage.¹¹

Therefore, ensuring that the property and the livestock producer adhere to the PNMA guidelines is crucial. This includes conducting proper environmental impact assessments, preparing the necessary reports, and obtaining the required licenses to ensure compliance within the livestock sector.

Verifying the compliance of rural properties is immensely important because civil liability for environmental damage repair is inherently connected to the property, following the legal principle of **propter rem obligation**. This implies that responsibility extends beyond the individual who caused the

damage to include the current owner of the property where the damage occurred. In essence, the obligation for environmental remediation is attached to the property itself, not solely to its current owner, and will thus be passed on to subsequent owners.

However, the responsibility for environmental restoration is not limited to the owner or holder of the rural property alone. In a landmark ruling by the STJ (Superior Court of Justice) in Special Appeal 1.114.490/SP, Justice Herman Benjamin declared, 'A polluter is anyone who directly or indirectly causes environmental damage



CONAMA Resolution No. 237 of 1997 established environmental licensing as both a legal mandate and a tool for environmental oversight by public authorities. This comprehensive document, which includes instruments like preliminary environmental impact studies, enables the monitoring of the implementation and operation of activities that either utilize natural resources or are deemed effectively or potentially polluting. Beyond regulating such activities, licensing plays a crucial role in the management of protected areas and legal reserves. This is particularly significant as the boundaries of these preserved areas are not detailed in the Forest Code but are instead defined by CONAMA Resolutions No. 302/2002, 378/2006, and 428/2010, dated March 20, 2002.

or benefits from it,' emphasizing that 'liability for environmental damage is objective, meaning it does not require proof of the individual's fault.'

Furthermore, the Forest Code stipulates in Article 12 that **every rural property must preserve a portion of its land with native vegetation as a Legal Reserve (RL)**. It also clarifies that areas designated as 'Legal Reserve' should not be confused with 'Permanent Preservation Areas' (APP). Additionally, properties within the Legal Amazon territory¹² must adhere to specific percentages for the RL:

- a. 80% for properties located in forest areas.
- b. 35% for properties situated in Cerrado regions.
- c. 20% for properties in the general fields area.

In all other regions of Brazil, rural properties are required to preserve a legal reserve comprising 20% of their total area. To remove native vegetation, authorization from the state environmental agency is necessary, which must be applied for through the Rural Environmental Registry (CAR). **Following the approval of the Forest Code, any removal of native vegetation after July 22, 2008, without proper authorization from the relevant authority, exceeding the legal reserve limits, or not falling under any legal exemption, is deemed illegal deforestation.** Such illegal deforestation incurs penalties, including fines, confiscation of equipment and machinery, and possible imprisonment, whether these penalties are applied separately or in combination.



Breeding Phase: This initial stage involves raising animals from birth until they reach a certain developmental milestone. It's crucial for ensuring the calves' health and proper nutrition. Special attention is given to pregnant cows during the calving phase, which includes the birthing process, caring for newborn calves, and providing colostrum—the nutrient- and antibody-rich first milk from the mother. This phase is dedicated to fostering the healthy growth of calves, setting the foundation for subsequent stages.

Growth and Weaning Phase: In this phase, calves, typically weaned at six to eight months, transition to solid diets and are known as "weaned calves". They continue their growth and development but are not yet ready for slaughter. The emphasis is on achieving healthy weight gain and growth, often involving dietary supplements to fulfill their nutritional requirements and prepare them for the next stage.

Fattening Phase: Also referred to as the finishing phase, this is the last stage before slaughter. Having progressed through the earlier phases, animals are now primed for rapid weight gain, efficiently converting feed into meat. This phase, often conducted in feedlots or enhanced pastures, focuses on high-energy, concentrated diets to boost weight and encourage intramuscular fat development, enhancing the meat's flavor and texture. The goal is to reach the optimal weight and condition for slaughter, optimizing the quality of the meat produced.



Currently, document verification, which confirms the authorization from the relevant authorities, and monitoring via georeferencing are the primary methods employed to combat illegal deforestation in Brazil. Beyond deforestation, several practices are crucial for fostering more sustainable livestock and grain production chains, which feed the livestock. These practices include:

- I. **Minimize the use of fertilizers and pesticides, particularly those detrimental to wildlife and plant life;**¹³
- II. **Recovering degraded pastures;**¹⁴
- III. **Implement crop-livestock-forestry integration;**¹⁵
- IV. **Sustain managed forests;**¹⁶
- V. **Employ suitable management practices, like no-till farming;**¹⁷
- VI. **Utilize renewable energy sources, including solar and wind power;**¹⁸
- VII. **Enhance water-use efficiency and adopt advanced irrigation systems;**¹⁹
- VIII. **Preserve natural habitats, such as forests and water springs;**²⁰
- IX. **Refrain from using water-polluting fertilizers and pesticides;**²¹
- X. **Protect the riparian zones of rivers and lakes.**²²

By embracing sustainable practices, rural producers can play a pivotal role in mitigating climate change effects and safeguarding the environment. These practices not only boost productivity and profitability but also lower operating expenses. Given the substantial impact of converting native vegetation to livestock farming on Brazil's greenhouse gas emissions, it is crucial for the entire agricultural production chain to take responsibility for environmental compliance on farms. A blend of stringent regulations, effective oversight, and incentives for sustainable practice adoption is vital to ensure responsible production chains. This approach will significantly contribute to environmental preservation and the mitigation of climate change.

LIVESTOCK FARMING AND THE CHALLENGES OF THE CLIMATE CRISIS

Scientists estimate over a 50% chance that global temperatures will rise to or surpass a 1.5 °C between 2021 and 2040, as detailed in the Sixth Assessment Report by the Intergovernmental Panel on Climate Change.²³ This projection is based on comparisons with global temperatures from the pre-industrial era, specifically between 1850 and 1900, before the widespread use of coal, oil, and gas. Expected consequences of this warming include more frequent extreme weather events, alterations in rainfall patterns, biodiversity loss, and other significant impacts.

Globally, the energy sector is the primary source of Greenhouse Gas (GHG) emissions due to fossil fuel combustion. However, Brazil presents a different emission profile. According to the Greenhouse Gas Emissions and Removals Estimation System (SEEG), the most significant GHG emissions in Brazil come from the Land Use Change and Forests category,²⁴ in first place, followed by the Agriculture sector.²⁵

To fully grasp the impact of Brazilian livestock farming on the climate crisis, it's crucial to consider not only the direct greenhouse gas emissions, such as methane released by cattle but also the emissions from deforestation and conversion of native vegetation, which are prevalent in the Land Use Change and Forests sector.

Brazilian biomes, including the Amazon, Cerrado, and Atlantic Forest, play a crucial role in carbon sequestration through their forests and vegetation. Deforestation leads to the release of stored carbon from biodiversity and soil as carbon dioxide (CO₂), a primary greenhouse gas, thereby contributing to global warming and climate change.

From another angle, continuing with '*business as usual*' across all sectors, while ignoring the global temperature rise, will have significant repercussions on



livestock farming. The 2023 Intergovernmental Panel on Climate Change (IPCC) report highlights that climate change will adversely affect the health and productivity of animals and livestock.

The IPCC report further warns that with escalating global warming, the challenges posed by climate change will become increasingly intricate and harder to manage. A complex interplay of climate and non-climate risks will lead to compounded general and cascading risks across various sectors and regions. For instance, climate-induced food insecurity and supply chain disruptions will exacerbate with rising temperatures. These challenges will be further complicated by non-climatic factors such as urban expansion competing with agricultural land, pandemics, and conflicts, potentially leading to humanitarian, political, and economic crises.²⁶ Hence, proactive engagement from all stakeholders in the livestock production chain is essential to prevent or mitigate such crises.

THE RURAL PRODUCER AND THE FINANCIAL SECTOR

The World Bank has established the Environmental and Social Policy for Investment Project Financing (IPF), which outlines a series of guidelines aimed at fostering best practices across various sectors, including agriculture. The primary goal is to encourage the adoption of sustainable agricultural practices by setting standards that ensure projects are environmentally sound, socially inclusive, and economically feasible. These guidelines further stipulate that the Bank's environ-

mental and social assessments will be tailored to the specific characteristics and scale of each project. This approach considers the environmental and social risks and impacts, emphasizing a mitigation hierarchy to address them effectively. The policy states **“The Bank’s environmental and social due diligence will be appropriate to the nature and scale of the project and proportionate to the level of environmental and social risks and impacts, with due regard to the mitigation hierarchy”**.²⁷

The Central Bank of Brazil,²⁸ through **Resolution No. 4327 of 2014**,²⁹ set forth guidelines for financial institutions in Brazil to implement socio-environmental responsibility policies. While not exclusively aimed at agribusiness, **this resolution mandates that financial institutions account for socio-environmental risks in their operations and develop internal policies to manage these risks**. Since its inception, the Resolution has been

updated to incorporate climate risk, enhancing the definition of socio-environmental risk.

In 2021, the Brazilian Central Bank issued another resolution, **No. 140/2021**, underscoring the banking sector's role in enforcing socio-environmental compliance within agribusiness. This resolution stipulates that **rural credit will not be extended³⁰ to producers who are either unregistered or have their registration annulled in the Rural Environmental Registry (CAR), are involved in enterprises within Conservation Units (UC) or have lands in territories occupied and legally recognized as belonging to indigenous or quilombola communities**.

Furthermore, this resolution also prohibits granting rural credit to individuals or entities listed in the 'dirty list of slave labor,' maintained by the responsible ministry, for engaging workers under conditions akin to slavery.



On another development, the **National Monetary Council (CNM)** has incorporated incentives into the 2023/2024 Safra Plan³¹ to reward rural producers. Those who have completed their Rural Environmental Registry (CAR) assessment and those who implement sustainable agricultural practices will benefit. Specifically, the plan offers a reduction of half a percentage point in the interest rate on loans for producers with an evaluated CAR, provided they meet one of the following criteria: 1) participation in the Environmental Regularization Program (PRA), 2) absence of environmental liabilities, or 3) eligibility for the issuance of an environmental reserve quota, among other stipulated measures.³²

Simultaneously, the Brazilian Federal Government has revamped the ABC Plan,³³ now known as Renovagro. This incentive program targets individuals aiming to enhance their agricultural methods by adopting sustainable practices, including:

- » Restoring degraded lands and pastures,
- » Developing and enlarging integrated crop-livestock-forestry systems,
- » Implementing conservation practices for the sustainable use, management, and protection of natural resources.

In essence, **it represents a financial mechanism designed to channel funding towards investment projects that promote practices reducing greenhouse gas emissions in agriculture.**³⁴

In the 2023-2024 Plano Safra, among other provisions, it was stipulated that credit will not be extended to projects on rural properties that are:

- » Subject to a suspended CAR;
- » Located within Conservation Units (UCs), with exceptions for traditional populations and those possessing an authorized Management Plan;
- » Overlapping with indigenous lands;
- » Under an embargo by a competent federal or state environmental agency, as registered in the Ibama database;
- » Situated in undesignated Public Forests, except for properties holding title deeds, those up to four fiscal modules in size, and properties with regularization requests reviewed and approved by Incra;



IN-TEXT LEGAL REFERENCES

- » CR/88 (Constitution of the Brazilian Federal Republic) – art. 225.
- » Law No. 6938/1981 – creates the PNMA (National Environmental Policy).
- » Law No. 12.651/2012 (Forest Code) – art. 4th and §§ (Permanent Preservation Areas), art.12 and section (Legal Reserve) and art. 29 (Rural Environmental Registry).
- » IN No. 42/1999, from the MDA/MMA, addresses the National Plan for the Control of Residues in Products of Animal Origin and the Residue Control Programs in Meat.
- » IN No. 22/2013 and IN No. 9, of 2021, from MAPA – address the Animal Transit Guide.
- » IN No. 51/2018, from MAPA – creates SISBOV.
- » IN No. 160/2022, from MS/ANVISA – establishes the Maximum Tolerable Limits (MTL) for contaminants in food.
- » IN No. 162/2022, from MS/ANVISA – It establishes the Acceptable Daily Intake (ADI), the Acute Reference Dose (ARfD), and the Maximum Residue Limits (MRL) for veterinary medicines in foods of animal origin.





THE INDUSTRY





IN THE INDUSTRY, THIS TERM ENCOMPASSES THE PHASE WHERE CATTLE ARE REMOVED FROM THE FIELD FOR SLAUGHTER AND TRANSPORTED TO SLAUGHTERHOUSES, WHICH SERVE EITHER AS DIRECT SUPPLIERS OR AS PRIMARY PROCESSING ENTITIES IN THE LIVESTOCK CHAIN. IT ALSO REFERS TO THE STAGE WHERE MEAT IS DELIVERED TO THE SECONDARY PROCESSING INDUSTRY. AT THIS JUNCTURE, THE MEAT IS EITHER INTEGRATED INTO VARIOUS PRODUCTS OR ENHANCED WITH VALUE-ADDED ATTRIBUTES.³⁵



COMPLIANCE OF ESTABLISHMENTS

Slaughterhouses represent the initial stage in the production sequence, following the breeding, rearing, and fattening phases of animals in the field. In Brazil, slaughterhouses and any establishments dealing with animal-origin products are subject to mandatory sanitary inspections. The regulations stipulate that 'no industrial establishment or storage facility for animal-origin products may operate within the country without prior registration with the appropriate supervisory body (...).'

Furthermore, the law provides for warnings, fines, and penalties, including the possibility of confiscating goods, suspending operations, or shutting down establishments for non-compliance with hygienic and sanitary standards or obstructing federal, state, or municipal inspections. Once operational licenses are obtained, entities throughout the production chain are required to comply with waste treatment regulations, significantly contributing to the reduction of environmental impacts.



SLAUGHTERHOUSES AND FINANCIAL INSTITUTIONS

In the industry, sectoral alignment is crucial to encourage the adoption of diligent practices in human rights and environmental matters. A key player in this alignment is the financial sector. In a significant step, the Brazilian Federation of Banks (FEBRABAN) issued Regulation **SARB regulation nº 026/2023**,³⁶ which focuses on managing the risk of illegal deforestation in the beef supply chain.

FEBRABAN's SARB Normative No. 26/2023 sets forth rules for managing the risk of illegal deforestation within the beef supply chain. These regulations apply to all financial institutions providing credit to Brazilian slaughterhouses, aiming to **prevent bank financing from supporting activities that contribute to illegal deforestation**. To this end, financial institutions are required to implement a series of measures, including:

- » Mandate that slaughterhouses implement a supply chain traceability and monitoring system, enabling financial institutions to ensure that the cattle procured do not originate from illegally deforested areas.
- » Conduct regular audits to confirm adherence to the traceability and monitoring regulations.
- » Set criteria for extending credit, considering the risk of illegal deforestation.

The regulations set precise deadlines for implementing the required measures. Meatpacking plants and slaughterhouses in the Legal Amazon and Maranhão are mandated to establish the traceability and monitoring system by December 2025. Other financial institutions are required to comply with the regulations by December 2026.

In response to these developments in the financial sector, the Brazilian Association of Meat Exporting Industries (Abiec) has formally committed to the “Boi na Linha” protocol. This protocol outlines socio-environmental criteria for cattle purchases nationwide, despite ABIEC's initial criticism of the pressure exerted.³⁷



SARB Regulation 026/2023, issued by FEBRABAN (Brazilian Federation of Banks), outlines significant criteria. Notably, by December 2025, cattle slaughterhouses in the Legal Amazon and Maranhão must establish a Traceability and Monitoring System. This system is designed to verify that they are not sourcing cattle from areas of illegal deforestation, involving both direct and indirect suppliers. Additionally, these slaughterhouses are required to implement controls for tracking and monitoring their supply chains. This includes verifying that their suppliers do not overlap with protected Conservation Units and Indigenous Lands, a check that must be completed before any animal purchases are made. [Read the full text.](#)



WASTE MANAGEMENT

According to the [Amazônia Real](#) portal, the Morada da Lua farm in Abaetetuba confines over 27,000 cattle within a 400-hectare area. The animal waste is polluting the Curupeté River and its tributaries: Abaeté, Igapó-açu, Bacuri, and Cataiandea. These water sources are crucial for the livelihoods of 180 families.

Locals refer to the slope leading to the Curupeté River's source as "bracinho." This area is particularly vulnerable to pollution, especially during the rainy season. Industrial waste is contaminating both water and soil, posing risks to human health and the environment.

The pollution of the Curupeté River and its tributaries adversely affects the regional community. Beyond the direct health hazards, residents are compelled to seek alternative water sources, leading to increased living costs.

The National Environmental Council (CONAMA) has issued resolutions concerning water bodies and the conditions for discharging liquid waste, referred to as "effluents." These regulations mandate the prior treatment of effluents before disposal, adhering to the conditions and standards outlined in the regulatory framework.

In addition to requiring prior treatment, facilities must regularly collect samples for monitoring, which should be analyzed technically by laboratories accredited by the National Institute of Metrology, Standardization, and Industrial Quality (INMETRO). They must also implement water reuse practices and, if they are potential polluters, submit a Pollution Load Declaration.

Regarding solid waste, the National Solid Waste Policy (PNRS) is crucial, addressing the entire lifecycle of products. PNRS is founded on the **principle of shared responsibility throughout the product lifecycle.**

This principle implies that manufacturers, importers, distributors, retailers, consumers, and public urban cleaning and waste management service providers each have distinct yet interconnected responsibilities. Their collective goal is to minimize the generation of solid waste and pollutants.

This collaborative effort is aimed not just at reducing negative impacts on human health and environmental quality but also at mitigating the effects associated with the lifecycle of these products. Consequently, it's vital for all stakeholders in the livestock chain to adopt measures in line with the PNRS for effective solid waste management.

The Brazilian livestock chain extends beyond cattle breeders to include slaughterhouses, meat producers, and retailers. Consequently, the National Solid Waste Policy (Law No. 12,305/2010) must be considered for products originating from this sector.

The core principle and goal of the PNRS is the **shared responsibility for the life cycle of products.** This means that the roles of manufacturers, importers, distributors, retailers, consumers, and entities responsible for public urban cleaning and solid waste management are interconnected. They are collectively tasked with reducing the volume of solid waste and refuse produced, aiming also to diminish the impacts on human health and environmental quality associated with the life cycle of these products.



COMMITMENTS AND CONDUCT ADJUSTMENTS

After the slaughtering phase and the processing of meat cuts, the so-called secondary processing industries take over. Among the top ten companies listed by Forbes Magazine for the highest market value in Brazil, at least three belong to the livestock sector.³⁸

These secondary processors, due to their size, drive the entire livestock industry, generating significant revenue and production volumes. They select their direct suppliers from among the slaughterhouses and distribute products across the entire retail market. Given their scale and prominence within the industry, they are often linked to a range of negative environmental impacts associated with livestock farming. Numerous studies and investigations have established connections between these major meat sector companies and the deforestation of forests and other Brazilian biomes.³⁹

To address deforestation, particularly illegal deforestation linked to livestock activities, several initiatives have been developed. These include Terms of Conduct Adjustment (TAC), facilitated by the Federal Public Ministry (MPF), and the Public Livestock Commitment (CPP),⁴⁰ a voluntary protocol now supported by major players in the livestock industry, initiated through Greenpeace campaigns.⁴¹

In 2009, 69 companies within the industry signed a Term of Conduct Adjustment (TAC) with the Federal Public Ministry, known as the "Meat TAC." Through this

agreement, they committed not to purchase livestock from properties that fail to adhere to environmental and social legislation.⁴² **Generally, these commitments obligate companies to verify whether the livestock properties they do business with are involved in deforestation, are subject to embargoes by the Brazilian Institute of the Environment and Renewable Natural Resources (IBAMA) or State Environmental Agencies (OEMAs), overlap with conservation units and/or indigenous lands, engage in labor practices akin to slavery, or are associated with other irregularities.**⁴³

Companies that signed the Conduct Adjustment Terms and adhered to the Cattle Supply Monitoring Protocol⁴⁴ have committed to disclosing their results, encompassing the entire chain, as a means of promoting greater transparency for society.

This includes:

- » Publicize the purchasing policies of livestock suppliers;
- » Provide a public summary of the annual audit report, detailing both blocked and non-blocked suppliers;
- » Present evidence documenting the regularization of areas previously blocked due to illegal deforestation.

Additionally, they should:

- » Inform consumers online about the product's origin;
- » Identify the properties and municipalities from which the cattle originate;
- » Comply with the General Data Protection Law (LGPD).

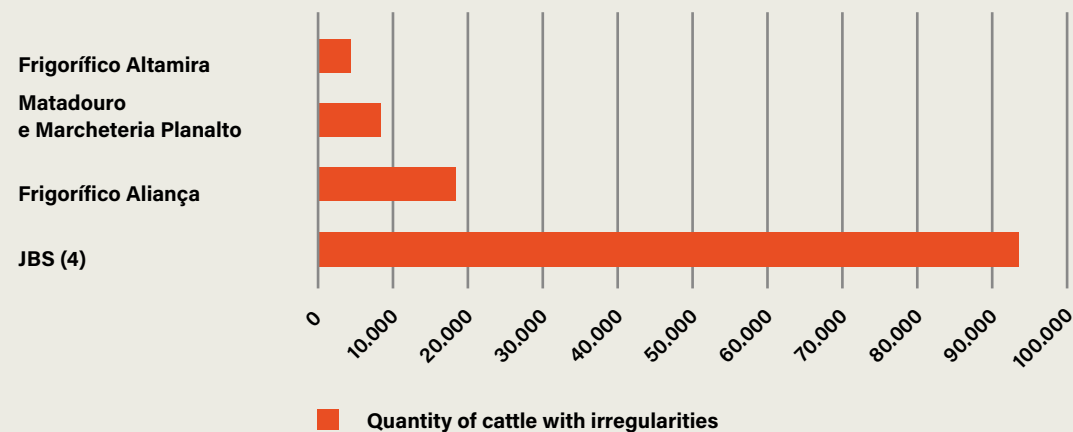
The Superior Court of Justice (STJ), in its ruling on Special Appeal 1.114.490/SP, with Minister Herman Benjamin presiding, declared that **"anyone who acts, fails to act, or benefits from environmental damage is considered a polluter."** He further asserted that **"responsibility for environmental damage is objective,** meaning it does not depend on proving the agent's fault." This implies that merely causing damage through a potentially harmful activity is sufficient for attributing responsibility to the agent, regardless of intent or negligence.





In terms of monitoring the Meat TAC, the Federal Public Ministry (MPF) conducts regular audits to evaluate adherence. The latest report in 2022 revealed that sixteen slaughterhouses had a compliance rate of over 50% regarding their cattle sources, whereas four demonstrated high levels of non-compliance. Despite noticeable improvements in meeting the TAC criteria, a major Brazilian company was repeatedly singled out for its shortcomings. In 2021, it led in terms of the volume of cattle from questionable sources and recorded the highest percentage of irregularities, with 31.99% of its purchases being problematic. By 2022, this figure had dropped to 16.73%.^{45, 46}

Beef TAC Signatories with the Highest Compliance Rates - Number of Cattle



Despite noticeable progress in adhering to TAC criteria, significant companies persist in sourcing cattle from questionable origins, including areas of illegal deforestation. This underscores the continued necessity for mechanisms that strengthen the meat industry's public commitment to sustainable and responsible practices. It also highlights the imperative to establish a mandatory national traceability system, crucial for ensuring transparency and verifying the legitimate origins of beef, thereby aiding in environmental conservation and preservation.

IN-TEXT LEGAL REFERENCES

- » Laws 1283/50 and 7889/89 address the sanitary and industrial inspection of animal-origin products.
- » Law 12,305/10 (National Solid Waste Policy) – Articles 2, 8(V), and 13(I)(i).
- » Law 13,709 – General Data Protection Law (LGPD).
- » CONAMA Resolutions 357/2005 and 430/2011 – Set conditions and standards for the discharge of effluents.
- » SARB 014/2014, FEBRABAN – Regulation for the creation and implementation of socio-environmental responsibility policy.
- » SARB 026/2023, FEBRABAN – Guidelines for establishing and implementing a socio-environmental responsibility policy.





THE RETAIL SCENARIO





RETAILERS PLAY A CRUCIAL ROLE IN THE LIVESTOCK SUPPLY CHAIN, BEING RESPONSIBLE FOR SELECTING THE SLAUGHTERHOUSES THAT SUPPLY THEIR STORES AND FOR SELLING BEEF TO THE END CONSUMER. EVEN WITHOUT DIRECT CONTACT WITH RURAL PRODUCERS, OR WITH VERY LIMITED INTERACTION, THEY OCCUPY A STRATEGIC POSITION THAT ENABLES THEM TO PREVENT ENVIRONMENTAL HARM, SUCH AS DEFORESTATION, AND HUMAN RIGHTS VIOLATIONS AT EARLIER STAGES OF THE SUPPLY CHAIN.



In this context, the Institute of Forestry and Agricultural Management and Certification (IMAFLORA) and the Brazilian Association of Supermarkets (ABRAS), with the guidance of experts, jointly developed the 2022 Monitoring Protocol for Retail Meat Suppliers.⁴⁷ This voluntary protocol provides retailers with a standardized framework to monitor their supply chains, ensuring the meat sourced from the Amazon is free from deforestation and slave labor.

This effort is an extension of the Boi na Linha project (MPF and IMAFLORA)⁴⁸ which has previously developed various monitoring and auditing protocols for the livestock sector in the Amazon, such as the Monitoring Protocol for Amazon Cattle Suppliers and the Audit Protocol for Livestock Commitments in the Amazon.

The document aims to unify and standardize sales procedures among retailers, addressing the issue of disparate protocols that hindered comprehensive analysis of engagement in the socio-environmental responsibility agenda. A key aspect is its design for applicability to any beef-selling company, regardless of size, whose suppliers include slaughterhouses, meat processors, or distributors in the Amazon.

The Protocol outlines three tiers of requirements for retailers concerning their meat suppliers: the essential level requires suppliers (both direct and indirect) to regularly update the traceability of the originating rural properties; complementary, stage in which the retailer implements its own traceability monitoring system based on the criteria of the Amazon Cattle Suppliers Monitoring Protocol (PMFGA), through invoices issued by the supplier; and advanced, in which the retailer, in addition to complying with the previous steps, carries out audits (own or contracted) of suppliers to verify the effectiveness of the monitoring applied.



ENHANCEMENT OF RETAIL COMMITMENTS REGARDING
THE AMAZON CATTLE SUPPLIER MONITORING PROTOCOL (PMFGA)
IN THE BOI NA LINHA PROGRAM

| COMMITMENT LEVEL | COMMITMENT TO MONITORING SUPPLIERS |
|------------------|---|
| ESSENTIAL | Commitment to the 11 PMFGA criteria , which include measures against illegal deforestation, demonstrated through the monitoring of direct suppliers. |
| SUPPLEMENTARY | Commitment to adhering to the 12 PMFGA criteria , encompassing zero deforestation, applied in the monitoring of direct suppliers. |
| ADVANCED | Commitment to the 11 PMFGA criteria , including actions against illegal deforestation, with proven effectiveness in monitoring indirect suppliers. |
| | Commitment to the 12 PMFGA criteria , aiming for zero deforestation, implemented in the monitoring of indirect suppliers. |

Reproduction (Boi Na Linha/Retail Monitoring Protocol)

The document also outlines criteria for processing collected data in compliance with the General Data Protection Law (LGPD). It provides a guide for accurately completing the required traceability information in the protocol, along with a model for managing monitoring objectives based on the level of requirement.

Private initiatives aimed at increasing transparency regarding livestock activities are being developed, one example being Radar Verde.⁴⁹ This initiative is a collaborative effort by the Instituto do Homem (Institute of Man) and the Meio Ambiente da Amazônia (Environment of the Amazon –Imazon) in partnership with the Institute O Mundo Que Queremos (The World We Want –OMQQ), among

others. Centered on developing indicators to gauge the presence, effectiveness, and transparency of corporate anti-deforestation policies, the methodology assesses whether the practices of slaughterhouses and major retail chains are consistent with a deforestation-free supply chain, including indirect suppliers not engaged in the Meat TAC. However, certain retailers have chosen not to participate, have criticized the initiative, or have opted not to disclose their data. However, some retailers have declined to participate, criticized the initiative, and/or refused to allow the release of their data.



In 2019, aiming to reduce illegal deforestation in the Amazon, a technical cooperation agreement was established between the Federal Public Ministry (MPF) and twelve prominent food retailers in Brazil.

This collaboration is designed to promote beef suppliers who are dedicated to environmental preservation and to achieve zero deforestation within the meat supply chain. A key aspect of this initiative is the development of consumer information systems to trace the origin of meat, ensuring it does not contribute to illegal deforestation.

The agreement with meat retailers outlines several strategies to curb illegal deforestation in the beef production process, including:

- » Retailers' commitment to sourcing beef exclusively from suppliers who adhere to environmental laws.
- » The requirement for companies to deploy meat traceability systems to verify the legal origin of their cattle.
- » The obligation for retailers to conduct audits of their suppliers to ensure environmental standards are met.

Through these measures, supermarkets have reinforced their pledge to halt purchases linked to deforestation, slave labor, encroachments on indigenous territories, or protected areas. Concurrently, they aim to tackle illegal slaughtering and support the Green Municipalities initiative in the Amazon regions. [Learn More](#)



Several Brazilian civil society initiatives collaborate to monitor and combat the deforestation of native vegetation in Brazil

| INITIATIVE | SUPPORTING ORGANIZATIONS | GOAL |
|--|--|--|
| Deter and Prodes | National Institute for Space Research (INPE) | Monitor deforestation through the Deter real-time deforestation detection system and the Legal Amazon Deforestation Satellite Monitoring Project (PRODES) |
| MAPBIOMAS | A collaborative network consisting of third-sector entities, universities, and technology startups | Annual production of land cover and use mapping, along with monthly monitoring of water surfaces and fire scars, utilizing data from 1985 onwards. |
| Greenhouse Gas Emissions and Removals Estimation System (SEEG) | Observatório do Clima | This initiative encompasses the annual estimation of Brazil's greenhouse gas (GHG) emissions, the production of analytical documents on emission trends, and an internet portal that presents the system's methodologies and data in an accessible and straightforward manner. |
| Boi na linha | Imaflora and MPF | This initiative aims to expedite the fulfillment of commitments made by the beef industry in the Amazon, striving for a supply chain devoid of socio-environmental issues. It seeks to synchronize efforts among livestock producers, slaughterhouses, supermarkets, investors, public entities, and civil society organizations towards adopting best practices. Through monitoring, auditing, and reporting, the initiative enhances transparency and combats deforestation, slave labor, and the unlawful encroachment of public lands. Additionally, it facilitates the exchange of technical knowledge to foster policies and practices that support sustainable livestock farming. |
| Radar verde | Imazon and OMQQ | This indicator is designed to inform consumers about which slaughterhouses and supermarkets maintain greater control and transparency within their meat supply chains. With this index, consumers can determine whether the meat they purchase from evaluated establishments has contributed to Amazon deforestation during its production cycle. |

HUMAN DIGNITY AT WORK

Retailers are subject to a range of labor obligations toward both their own employees and those of their suppliers. These obligations are dictated by various laws and regulations, including the Federal Constitution, the Consolidation of Labor Laws (CLT), environmental statutes, and international laws.

Brazil is a party to multiple international labor conventions, such as the International Labor Organization (ILO) Convention 29 on forced labor and ILO Convention 105 on the abolition of forced labor. These conventions establish baseline standards for workers' rights, encompassing the right to freedom of association, the right to collective bargaining, the right to a fair wage, and the right to safe and healthful working conditions.

Bill 572/2022, currently under review in the National Congress, proposes a set of obligations for companies concerning human rights. If enacted, this legislation will mandate companies to conduct due diligence processes to identify, prevent, monitor, and address human rights violations, encompassing social, labor, and environmental rights.



Essential actions to protect workers' rights in retail and across the livestock chain include:

- » Complying with Brazilian labor legislation.
- » Establishing policies and procedures that safeguard workers' rights.
- » Training employees on their rights and responsibilities.
- » Monitoring suppliers' compliance with labor laws.
- » Taking disciplinary measures against suppliers who fail to comply with labor laws.



CASE OF THE GREEN BRAZIL FARM

During the 1990s, Fazenda Brasil Verde, a rural property in Sapucaia, southern Pará, employed 128 rural workers for various tasks. These men, aged between fifteen and forty, were recruited from various cities in the north and northeast of Brazil with promises of employment. A Ministry of Labor inspection revealed that these workers were subjected to conditions akin to slavery, resulting in the rescue of eighty individuals. This was not an isolated incident; previous inspections in 1993, 1996, and 1997 had also uncovered human rights violations on this farm. The Inter-American Commission determined that the Brazilian State had breached the American Declaration of the Rights and Duties of Man by not preventing conditions resembling slavery. Consequently, the Inter-American Court of Human Rights condemned the Brazilian State for its failure to implement effective measures against such practices. Following this, investigations related to the case (police investigation 2001.39.01.000270-0) were reopened to identify, prosecute, and penalize those accountable.

Retailers who neglect their labor obligations could face civil and criminal liability. Consequences may include fines, compensation, and even imprisonment for those found responsible.

OBSERVANCE OF THE RIGHTS OF INDIGENOUS PEOPLES AND TRADITIONAL COMMUNITIES

Retailers can serve as a pivotal checkpoint for ensuring the livestock industry's compliance with the rights of indigenous peoples and traditional Brazilian communities. The regulations that need to be upheld span across a variety of laws and regulations, including the Federal Constitution, the Civil Code, environmental laws, and international statutes.

The Federal Constitution of Brazil acknowledges the indigenous peoples' original rights to their lands and natural resources. The Civil Code further stipulates that indigenous lands are assets of the Union, granting indige-

nous peoples the right to permanent possession and exclusive use of these lands. Additionally, Brazilian environmental laws forbid the exploitation of natural resources on indigenous lands without prior consent from the indigenous communities.

International laws also recognize a variety of rights for indigenous peoples, including self-determination, land rights, environmental rights, health rights, and the right to prior consultation. Brazil is a party to numerous international agreements concerning indigenous peoples' rights, such as the International Labor Organization (ILO) Convention 169 on Indigenous and Tribal Peoples in Independent Countries and the United Nations Declaration on the Rights of Indigenous Peoples.⁵⁰

Retailers that neglect their responsibilities to uphold the rights and territories of indigenous communities may face civil and criminal liabilities, with potential penalties including fines, compensation for damages, and even imprisonment.

Art. 231, CF: Indigenous peoples are acknowledged for their social organization, customs, languages, beliefs, and traditions, as well as their original rights to the lands they traditionally occupy. It is the responsibility of the Union to demarcate, protect, and ensure respect for all their properties.

Article 68 of the ADCT (Act of the Constitutional Transitory Provisions) states that the remaining quilombo communities occupying their lands are recognized as having definitive ownership, and it is the State's duty to issue them the respective titles.

Key steps to safeguard the rights of indigenous peoples in retail and across the livestock supply chain include:

- » Conduct thorough research to ensure your suppliers are not encroaching upon indigenous territories.
- » Insist that your suppliers implement sustainable practices that honor indigenous peoples' rights.
- » Support organizations dedicated to defending the rights of indigenous communities.
- » Advocate for the respect of indigenous peoples' rights and motivate your friends and family to join the effort.



The jurisprudence of Brazilian courts on corporate environmental and human rights responsibility has evolved significantly in recent years. The Federal Supreme Court (STF) has robustly held companies accountable for detrimental actions, employing principles like objective civil liability and the non-prescription of damage reparations. These rulings mark significant progress in human rights and environmental protection, with the courts playing a pivotal role in fostering a more equitable and sustainable society.

A notable case is Extraordinary Appeal No. 838.284/BA, where the STF held a steel industry company accountable for subjecting its workers to degrading conditions, thus infringing human rights. The Court ruled that the company's liability was irrespective of direct fault or employment ties, invoking objective civil liability. Another case, Extraordinary Appeal No. 929,670/DF, saw the STF holding a Brazilian company liable for human rights violations in Angola, suggesting that companies can also be liable for damages caused overseas. **This emphasizes the global scope of human rights respect, underscoring the accountability of companies for their actions beyond national boundaries.**



THREAT TO URU-EU-WAU-WAU TERRITORY

The Uru-Eu-Wau-Wau Indigenous Land (TIUEWW), situated in Rondônia within the Brazilian Amazon, spans 1,867,117 hectares and hosts a diverse range of ethnic groups. Among its inhabitants are the Jupaú and Amondawa peoples, who speak languages from the Kawahiva group within the Tupi-Guarani family, and the Oro Win people from the Txapakura linguistic family, along with isolated groups known as Jururei and Yvyiraparaquara. The Center for Climate Crime Analysis (CCCA) reports that TIUEWW is undergoing continual invasion, deforestation, and the introduction of economic activities related to livestock breeding and sales. The findings, based on remote sensing, geospatial data collection, and public database traceability, include:

- » Over 20,000 hectares within the Indigenous Land have been illegally cleared;
- » 13,411 hectares are used for cattle breeding and associated livestock infrastructure, making up approximately 66% of the total deforested area within the territory;
- » The illegally managed cattle herd within the territory is estimated to reach 25,482 animals.

Most of the areas used for pasture (71%) are located in the Burareiro region, within the indigenous territory. Some of the production from this pasture area within TIUEWW is known to supply regional slaughterhouses, including those that provide to the Casino Group. [Learn More.](#)





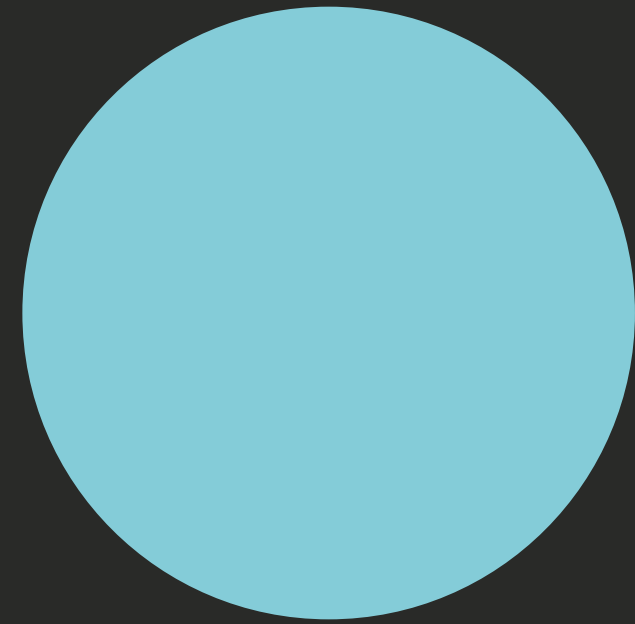
IN-TEXT LEGAL REFERENCES

- » Brazilian Constitution of 1988: Article 7 (pertains to workers' rights), Article 231 (concerns the original rights over traditional indigenous lands).
 - » International Labour Organization (ILO) Convention No. 29: Addresses the prohibition of forced or compulsory labor.
 - » ILO Convention No. 169: Deals with the rights of indigenous and tribal peoples, notably in Articles 1, 3, 6, 13, and subsequent sections.
 - » United Nations Declaration on the Rights of Indigenous Peoples.
 - » Brazilian Penal Code (Decree Law No. 2,848/40): Article 149 (relates to the crime of slave labor and forced labor).
 - » Consolidation of Labor Laws (CLT, Decree-Law No. 5,452/43): Article 505.
 - » Decree No. 7747/12: Establishes the National Policy for Territorial and Environmental Management of Indigenous Lands (PNGATI).
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THE PLATE





AFTER THE INDUSTRIAL PROCESSING PHASE OR THE SALE BY RETAILERS TO END CONSUMERS, BOTH DOMESTICALLY AND INTERNATIONALLY, IT'S CRUCIAL TO CONSIDER THE IMPLEMENTATION OF EFFECTIVE MONITORING AND CONTROL MECHANISMS TO ENSURE COMPLIANCE THROUGHOUT THE ENTIRE LIVESTOCK SUPPLY CHAIN.



BRAZILIAN MEAT ON THE INTERNATIONAL MARKET

The Brazilian Association of Meat Exporting Industries (ABIEC) hosts the "Brazilian Beef Exportometer" on its website. According to ABIEC's general statistics, Brazil exported 2,264,180 tons of products in 2022, including fresh meat, offal, processed meat, and other products.

The trade balance for May 2023, published by the Ministry of Agriculture, Livestock and Supply, indicates that China is the largest importer of Brazilian beef, with purchases amounting to US\$583.23 million. The Asian country accounted for 61.3% of the total export value. Only three other markets recorded imports exceeding US\$20 million: the United States (US\$71.74 million), Chile (US\$45.46 million), and Hong Kong (US\$25.55 million).⁵¹ The European market, although not the main buyer, is a significant importer of Brazilian meat. It is notable in Brazilian exports for historically offering higher prices, especially for prime beef cuts.⁵²

Given that China is currently the largest purchaser of Brazilian beef, it's noteworthy that there has been a gradual shift in the market's approach. Repórter Brasil has documented that, until 2021, the Chinese government had not entered into any agreements concerning forests. However, this began to change at COP26, where China signed the Declaration on Forests and Land Use, committing internationally to forest protection and deforestation reduction. Shortly thereafter, China and the United States signed an agreement to eliminate global illegal deforestation, banning the import of forestry products linked to illegal activities. Later in the year, China issued a joint statement with the European Union,⁵³ reiterating its commitment to more sustainable supply chains.



1. The meeting between Presidents Luiz Inácio Lula da Silva and Xi Jinping in Beijing on April 14, 2023, was marked by a mutual recognition of the significant challenge posed by climate change, which they both acknowledged as one of the paramount issues of our era. In their discussions, Presidents Lula and Xi emphasized that tackling this crisis is pivotal in shaping a future characterized by equitable and shared prosperity for all of humanity.

(...)

11. We congratulate ourselves and are resolute in our commitment to advancing our respective and ambitious endeavours towards a progress in climate, as well as to expanding, deepening, and diversifying our bilateral cooperation on climate issues in areas such as transitioning to a sustainable and low-carbon global economy; the development of smart cities, green infrastructure, the promotion of green industries, renewable energies —ensuring access and support for remote communities—, electric mobility, innovation, research, and the advancement of green technologies, as well as green finance and investments. Furthermore, we aim to collaboratively engage in efforts to combat global deforestation and illegal logging by effectively enforcing our respective laws that prohibit such activities. We are committed to supporting the elimination of these practices through the enforcement of regulations governing illegal imports and exports. Additionally, we will continue to collaborate in the development and sharing of technologies, including leveraging the capabilities of the new CBERS 6 satellite, which will enhance our ability to monitor forest cover more effectively. Moreover, we will actively promote knowledge exchange, the dissemination of best practices, and various other forms of cooperation aimed at the conservation and sustainable management of forests, as well as the regeneration and reforestation of degraded areas.

For the full text of the joint statement, please refer to this [link](#).



In June 2023, the European Union introduced the European Regulation on Deforestation-Free Products, banning the import and sale of products produced on deforested or degraded land. This includes commodities like cattle, cocoa, coffee, palm oil, rubber, soy, and wood. The regulation targets these products because deforestation significantly contributes to biodiversity loss, climate change, and increased greenhouse gas emissions. The aim is to:

- » Minimize the European Union's contribution to global deforestation and forest degradation, thereby aiding in the reduction of worldwide deforestation;
- » Reduce the European Union's impact on greenhouse gas emissions and global biodiversity loss.

Consequently, all suppliers to the European Union must verify that their products are not sourced from deforested land or have not contributed to such degradation. Companies will be given a deadline to comply with this rule, with the regulation being fully enforced from June 2025.

The regulation stands out by providing an expansive definition of forest degradation, which encompasses the conversion of primary forests or naturally regenerating forests into planted forests or other wooded lands. Beyond environmental considerations, companies are required to provide a due diligence statement, confirming their adherence to human rights laws and respect for indigenous peoples.



This regulation is part of a broader initiative that started in 2019, reinforced by the European Green Deal and the European Union's Biodiversity Strategy for 2030, along with the Farm to Fork Strategy. The Farm to Fork Strategy is designed to render food systems more equitable, eco-friendly, and healthy, facilitating the transition to a sustainable food system characterized by:

- » An environmentally neutral or positive impact;
- » Mitigation of climate change and adaptation to its effects;
- » Reversal of biodiversity loss;
- » Assurance of food security, nutrition, and public health, ensuring universal access to sufficient, safe, nutritious, and sustainable food;
- » Food affordability, generating fair economic returns, enhancing the competitiveness of the EU's supply sector, and promoting fair trade.

Public Civil Action Number 1005885-78.2021.4.01.3200, initiated by the Federal Public Ministry, stands as a significant landmark in Brazilian legal proceedings concerning climate-related damages. The defendant in this case is Dauro Parreira de Rezende, and the focus is on civil liability for environmental and climate harm caused by the illicit deforestation of 2,488.56 hectares within Fazenda Santa Luzia and Seringal Redenção, situated in the Agroextractivist Settlement Project (PAE) Antimary, in Boca do Acre municipality.

The plaintiffs support their claims by converting the property's coordinates using the official converter from INPE, confirming Fazenda Santa Luzia's location within PAE Antimary. Furthermore, they introduced a report by IPAM Amazônia, outlining the greenhouse gas (CO₂) emissions generated by the area's deforestation.

On February 25, 2023, a decision was made to reject the counterclaim filed in this case, marking a crucial progression in the lawsuit aimed at holding accountable those engaged in environmentally and climatically detrimental practices. This case marks a significant advancement in Brazilian legal history concerning climate damage and sets an important precedent for future environmental legal challenges. [Read more.](#)

INITIATIVES FOR A CONSCIOUS BRAZILIAN CONSUMER

From the perspective of Brazilian domestic consumers, the Institute for Consumer Protection (IDEC) has endeavored to ensure that consumers are informed about the origin of the meat they consume. Between 2008 and 2009, IDEC inquired with supermarkets and slaughterhouses about their control over the meat production chain. The findings revealed a lack of effort by companies to guarantee the meat's origin and ensure it was not associated with deforestation or forced labor.

In 2010, Brazil saw the launch of the "Carne Legal" campaign⁵⁴ by the Federal Public Ministry (MPF), in collaboration with IDEC and Repórter Brasil. The campaign aimed to educate consumers about meat sourced from companies that breached labor, social, and environmental standards, utilizing media such as television, radio, and social networks. Beyond creating informative materials, this initiative, part of the MPF's Legal Meat Program,⁵⁵ encouraged several slaughterhouses

to sign Terms of Conduct Adjustment (TACs), even before the well-known Meat TAC.

In terms of consumer engagement, citizen science projects seek to enhance the traceability of meat in Brazil. One such project is "From Pasture to Plate," a collaboration between Trase, the Stockholm Environment Institute, UCLouvain, and Repórter Brasil. This app enables Brazilian consumers to trace the origin of beef in the marketplace, offering data on environmental impacts/deforestation, the presence of labor violations akin to slavery at supplying farms, and the number of fines levied against slaughterhouses for hygiene shortcomings or animal welfare negligence. This initiative aids consumers in making more informed decisions at the point of purchase.⁵⁶



CAPITAL MARKETS ENCOURAGING RESPONSIBLE CHAINS

Beyond the banking industry, investors play a significant role in the financial sector. The Brazilian stock exchange has developed the Corporate Sustainability Index (ISE B3), designed to reflect the average performance of stock prices of companies recognized for their commitment to corporate sustainability.

ISE B3⁵⁷ comprises stocks and *units*⁵⁸ exclusively from companies listed on B3 that meet, among other criteria, certain standards explicitly aimed at categorizing companies with high scores on a questionnaire. Questions include: "Indicate the practices through which the company manages the significant negative impacts of its operations on the local community" and "Does the company have a corporate policy for risk management that considers short, medium, and long-term aspects monitored by the Board of Directors?" as well as a high score in the non-governmental entity framework.

While ISE B3 is an admirable capital market initiative, promoting the inclusion of environmentally and socially responsible companies in its portfolio, it is crucial for investors to maintain a critical perspective when evaluating listed companies. A major concern is the inclusion of companies in the index that are implicated in illegal deforestation, conflicts with indigenous peoples, and other human rights violations.

Investors should recognize that being part of ISE B3 does not ensure complete alignment with sustainability values. It is vital for investors to be diligent in their evaluations, considering not only a company's inclusion in indexes but also thoroughly reviewing sustainability reports, environmental and social policies, and the company's reputation concerning ethical matters.

IN-TEXT LEGAL REFERENCES

- » Brazilian Constitution of 1988: Article 7 (pertains to workers' rights), Article 231 (concerns the original rights over traditional indigenous lands).
- » International Labour Organization (ILO) Convention No. 29: Addresses the prohibition of forced or compulsory labor.
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FINAL CONSIDERATIONS





Brazil is undeniably a major player in the livestock sector, ranking as the second-largest beef producer and the top exporter worldwide. Concurrently, the nation leads in global deforestation, jeopardizing ecosystem conservation and adversely affecting the livelihoods of entire communities. This environmental degradation also leads to conflicts with indigenous peoples and traditional communities. Moreover, there have been verified instances where livestock farms have subjected workers to conditions akin to slavery. These issues pose significant risks to the livestock industry, spanning environmental, climate, social, reputational, financial, and legal dimensions.

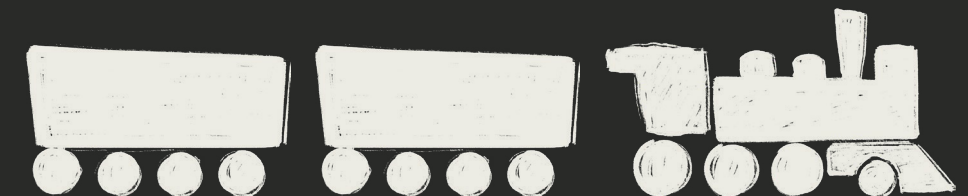
Considering this situation, it is crucial to implement comprehensive measures to ensure socio-environmental compliance throughout the livestock chain. Everyone, from producers to consumers, including slaughterhouses, industries, retailers, wholesalers, and financiers, has a vital role to play. It is

imperative to adopt practices, regulations, and policies that foster diligence regarding human rights and environmental protection. Establishing a mandatory national traceability system is essential for monitoring and ensuring compliance from pasture to plate, thereby ensuring land and environmental regularization along with stringent health practices. Such a system would not only enhance transparency but also promote a more responsible and sustainable livestock sector.

Within the livestock industry, practices such as licensing, waste management, and reducing effluent discharge are crucial for preventing environmental harm. Linking credit to the monitoring of illegal deforestation and environmental responsibility agreements underscores the need for conscientious action. Implementing monitoring protocols throughout the entire chain, from industry to retail, is critical for sustaining ethical practices.

Internationally, agreements and regulations, such as those implemented by the European Union, are instrumental in fostering sustainability and curbing deforestation. Raising consumer awareness through educational campaigns that encourage responsible choices is equally important.

Ultimately, the collective effort of all stakeholders is necessary for a truly sustainable and ethical livestock industry. Coordinated actions among producers, industries, retailers, governmental entities, and financiers can effectively address environmental, social, and legal risks, paving the way for livestock farming to contribute positively to Brazil's sustainable development.





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¹ WRI. **Deforestation Linked to Agriculture**. Available at: <https://research.wri.org/gfr/forest-extent-indicators/deforestation-agriculture?utm_medium=blog&utm_source=insights&utm_campaign=globalforestreview#how-much-forest-has-been-replaced-by-cattle>. Accessed on: 8/29/2023.

² REPÓRTER BRASIL. **Monitor #8: Trabalho escravo na indústria da carne**. Available at: <https://reporter-brasil.org.br/wp-content/uploads/2020/12/Monitor-8_Trabalho-escravo-na-ind%C3%BAstria-da-carne.pdf>. Accessed on: 6/3/2023.

³ To ensure sustainability and the protection of human rights within the intricate web of globalized, cross-border commercial chains, it's crucial to examine the international context. This includes analyzing emerging trends and legislation adopted by various countries, which can significantly influence domestic practices. The publication '**Due Diligence: Beyond Compliance with the Law**,' prepared by ILAJUC, addresses the growing global demands in human rights, environmental protection and climate, focusing on Brazil. The document explores a range of subjects, from the global perspective on supply chains and the role of financial markets, to the development of internal practices and the critical nature of due diligence, as well as providing a comparative analysis of international legislation.

⁴ Foot and mouth disease exemplifies a condition that necessitates herd control due to its significant local economic impact, including financial losses for communities through the culling of infected animals, commercial losses from sanitary barriers, and the costs associated with the virus's high infectiousness. In 2005, Brazil faced an outbreak of foot and mouth disease in the states of Mato Grosso do Sul and Paraná, prompting several countries, including Russia — Brazil's prin-

cipal trading partner at the time — to ban imports of Brazilian meat.

⁵ CORDEIRO DE SÁ, Claudia V. Gonçalves; GARCIA, Diana C. Carvalho; et al. **Impactos do surto de febre aftosa de 2005 sobre as exportações de carne bovina brasileira**. Available at: <<https://www.scielo.br/j/cab/a/dYW9pwzMGRWBgNC5n6HjfTs/?lang=pt&format=pdf#:~:text=Em%202005%2C%20a%20febre%20aftosa,mercado%20do%20Brasil%20na%20%C3%A9poca.>>. Accessed on: 8/20/2023.

⁶ For the purposes of the Rural Environmental Registry (in Portuguese, Cadastro Ambiental Rural – CAR), a 'rural property' is defined as any continuous, undeveloped land area, irrespective of its location, that is intended for or likely to be used in agricultural, livestock, extractive, forestry, or agro-industrial activities, as defined by the Agrarian Reform Law (Law No. 8,629/93). Furthermore, Normative Instruction 2/2014 delineates the categories of property sizes: small properties (up to four fiscal modules), medium properties (four to fifteen fiscal modules), and large properties (more than fifteen fiscal modules).

⁷ Under Normative Instruction No. 42 of 1999 by the Brazilian Ministry of Agriculture and Livestock, and further expanded by Normative Instructions No. 160 and 162 of 2022, the National Plan for the Control of Residues and Contaminants in Animals (in Portuguese, Plano Nacional de Controle de Resíduos e Contaminantes) – PNCRC/Animal was established. This plan targets both producers and rural establishments, aiming to ensure adherence to the maximum permissible levels of chemical residues in animal products as established in Brazil. These limits are set by the National Health Surveillance Agency – Anvisa. The enforcement process involves batch sampling conducted by the Federal

Inspection Service. This procedure facilitates traceability back to the farm of origin, allowing for appropriate actions in case of violations, which can range from re-testing to the embargo of animal batches or products.

⁸ SILVA, Ricardo Pires Moreira da. **Contaminação Ambiental por resíduos da produção animal** (in Portuguese, "Environmental contamination by waste from animal production"). Paper presented at a seminar of the Graduate Program in Veterinary Sciences at the Federal University of Rio Grande do Sul. Instructor in charge: Félix HD González, 2005.

⁹ LEITE FILHO, R.V. **Intoxicação com Nitrito**. Seminar on Metabolic Disorders of Domestic Animals presented as part of the Postgraduate Program in Veterinary Sciences at the Federal University of Rio Grande do Sul, 2014. 7 p.

¹⁰ Eutrophication is a process that occurs when a body of water is overloaded with nutrients, particularly nitrogen and phosphorus. These nutrients can originate from natural sources like sewage, fertilizers, and animal waste, or from artificial sources such as industrial and agricultural runoff. The surplus of nutrients fuels the excessive growth of algae and aquatic plants. This overgrowth can obstruct sunlight and deplete oxygen in the water, leading to the demise of other aquatic plants and animals.

¹¹ The Federal Technical Registry is mandatory for individuals and legal entities involved in potentially polluting activities or those utilizing environmental resources. Given that livestock farming is deemed potentially polluting and is included in the Annex of CONAMA Resolution No. 237, registration in the FTR is required.

¹² The Legal Amazon encompasses a territory spanning nine Brazilian states in the Amazon Basin. Established by the federal government in 1953 through Law No. 1806,

its creation aimed to foster socioeconomic development in the region. As one of Brazil's most biodiverse areas, the Legal Amazon boasts extensive reserves of natural resources, including forests, freshwater, and minerals.

¹³ PERES, Frederico; MOREIRA, Josino Costa. **É veneno ou é remédio? agrotóxicos, saúde e ambiente**. FIOCRUZ Publisher: Rio de Janeiro, 2003. Available at: <<https://doi.org/10.7476/9788575413173>>. Accessed on: 12/3/2023.

¹⁴ EMBRAPA. **Como a recuperação de pastagens pode ajudar ao meio ambiente?**. Available at: <<https://www.embrapa.br/busca-de-noticias/-/noticia/31735518/como-a-recuperacao-de-pastagens-pode-ajudar-o-meio-ambiente>>. Accessed on: 12/3/2023.

¹⁵ WRI BRASIL. **iLPF: Os benefícios econômicos e ecológicos da integração Lavoura-Pecuária-Floresta para o país**. Available at: <<https://www.wribrasil.org.br/noticias/ilpf-os-beneficios-economicos-e-ecologicos-da-integracao-lavoura-pecuaria-floresta-para-o>>. Accessed on: 12/3/2023.

¹⁶ TNC. **A floresta em pé traz ganhos financeiros, e quem diz isso é a ciência**. Available at: <<https://www.tnc.org.br/conecte-se/comunicacao/artigos-e-estudos/a-floresta-em-pe-traz-ganhos-financeiros-quem-diz-isso-e-a-ciencia/>>. Accessed on: 12/3/2023.

¹⁷ EMBRAPA. **Embrapa demonstra vantagens do plantio direto da subsolagem e da integração lavoura-pecuária**. Available at: <<https://www.embrapa.br/busca-de-noticias/-/noticia/3162901/embrapa-demonstra-vantagens-do-plantio-direto-da-subsolagem-e-da-integracao-lavoura-pecuaria#:~:text=As%20principais%20vantagens%20do%20plantio,um%20per%C3%ADodo%20de%20seca%20e>>. Accessed on: 12/4/2023.



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¹⁸ WORLD BANK. **Brazil can be both richer and greener: World Bank Group outlines opportunities for climate action and growth.** Available at: <<https://www.worldbank.org/pt/news/press-release/2023/05/04/brazil-can-be-both-richer-and-greener-world-bank-group-outlines-opportunities-for-climate-action-and-growth>>. Accessed on: 12/4/2023.

¹⁹ EMBRAPA. **Água na agricultura.** Available at: <<https://www.embrapa.br/agua-na-agricultura/sobre-o-tema>>. Accessed on: 12/3/2023.

²⁰ BBC. **Por que o futuro do agronegócio depende da preservação do meio ambiente no Brasil** (in Portuguese, Why Preserving the Environment in Brazil is Crucial for the Future of Agribusiness). Available at: <<https://www.bbc.com/portuguese/brasil-48875534>>. Accessed on: 12/3/2023.

²¹ EMBRAPA. **Panorama da Contaminação Ambiental por Agrotóxicos e Nitrato de origem Agrícola no Brasil: cenário 1992/2011.** Marco Antonio Ferreira Gomes; Robson Rolland Monticelli Barizon.- Jaguariúna, SP : Embrapa Meio Ambiente, 2014.

²² PEQUENO, P. L. de L.; VASCONCELOS, L. P. de; VIEIRA, A. H.; MARTINS, E. P.; LOCATELLI, M.; OLIVEIRA, V. B. V. **Importância das Matas Ciliares**, 2002. Embrapa Rondônia. Available at: <<https://www.embrapa.br/busca-de-publicacoes/-/publicacao/703807/importancia-das-matas-ciliares>>. Accessed on: 12/3/2023.

²³ IPCC, 2023. Summary for Policymakers. In: **Climate Change 2023: Synthesis Report.** A Report of the Intergovernmental Panel on Climate Change. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, H. Lee and J. Romero (eds.)]. IPCC, Geneva, Switzerland, 36 pages. (in press).

²⁴ The 'Land Use Change and Forests' sector encompasses activities related to altering land use patterns, such as deforestation, reforestation, and the conversion of forests into agricultural or urban areas, among other changes.

²⁵ SEEG. **Emissões totais.** Available at: <https://plataforma.seeg.eco.br/total_emissao>. Accessed on: 6/17/2023.

²⁶ IPCC, 2023: Summary for Policymakers. In: **Climate Change 2023: Synthesis Report.** A Report of the Intergovernmental Panel on Climate Change. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, H. Lee and J. Romero (eds.)]. IPCC, Geneva, Switzerland, 36 pages. (in press). Page 15.

²⁷ WORLD BANK. **World Bank Environmental and Social Policy for Investment Project Financing.** Available at: <<https://thedocs.worldbank.org/en/doc/360141554756701078-0290022019/original/WorldBankEnvironmentalandSocialPolicyforInvestmentProjectFinancing.pdf>>. Accessed on: 7/9/2023.

²⁸ Established by Law No. 4595 in 1964, the Central Bank of Brazil is an autonomous federal agency, independent of any ministry, with technical, operational, administrative, and financial autonomy (Complementary Law 179, 2021). Its primary mission is to maintain price stability, along with ensuring the stability and efficiency of the financial system, moderating economic activity fluctuations, and fostering full employment.

²⁹ BANCO CENTRAL DO BRASIL. **Resolução nº 4.327, de 25 de abril de 2014.** Available in << https://www.bcb.gov.br/pre/normativos/res/2014/pdf/res_4327_v1_o.pdf >, accessed on 8/26/2023.

³⁰ The Central Bank of Brazil categorizes rural credit as financing specifically designed for the agricultural sector. Rural producers allocate the funds obtained from this type of credit in various ways on their farms. instance, they may invest in new machinery and livestock, purchase raw materials for crops, or use the funds to market and process their produce. These applications are known as the objectives of rural credit.

³¹ The Safra Plan, initiated in 2003 and updated annually, is a federal initiative aimed at channeling public funds to support Brazilian agricultural producers across all scales — small, medium, and large.

³² According to a report by the SUMAÚMA portal, a significant portion of these financial incentives, including credits from the Safra Plan, predominantly benefit large estates and agribusinesses that continue traditional practices. The report highlights that currently, only 3% of the Safra Plan credits in the Legal Amazon align with the Low Carbon Agriculture Plan (ABC Plan), which conditions loans on practices that result in reduced emissions.

³³ Since the United Nations Conference on Environment and Development, commonly referred to as Rio 92, Brazil has been an active participant in global discussions on the impact of human activities on climate change. In response, the country set greenhouse gas (GHG) emission reduction targets at the Conference of the Parties (COP) 15 and enacted the National Climate Change Policy (PNMC) in 2009. This led to the creation of the Sectoral Plan for Mitigation and Adaptation to Climate Change for the Consolidation of a Low-Carbon Emission Economy in Agriculture, known as the ABC Plan (Low-Carbon Emission Agriculture). Drafted in line with Article 3 of Decree 7390/2010, the ABC Plan is designed to facilitate the adoption of sustainable production technologies, in line with Bra-

zil's commitments to lower GHG emissions within the agricultural sector.

³⁴ BANCO DO BRASIL. **Agricultura de Baixo Carbono (ABC+)** (in Portuguese, Low Carbon Agriculture - ABC+). Available at: <[https://www.bb.com.br/pbb/pagina-inicial/agronegocios/agronegocio---produtos-e-servicos/credito/investir-em-sua-atividade/agricultura-de-baixo-carbono-\(abc+\)?#/>. Accessed on: 7/10/2023.](https://www.bb.com.br/pbb/pagina-inicial/agronegocios/agronegocio---produtos-e-servicos/credito/investir-em-sua-atividade/agricultura-de-baixo-carbono-(abc+)?#/)

³⁵ GVces; WWF-Brasil. **White Paper - Investimento Responsável e o Combate ao Desmatamento nas Cadeias de Pecuária, Soja, Papel e Celulose no Brasil.** São Paulo, p. 100. 2017

³⁶ Other notable FEBRABAN regulations for agribusiness include SARB 020/2018, which outlines procedures for awarding self-regulation seals. These seals publicly recognize institutions committed to compliance practices based on essential societal ethical values, such as inclusion, diversity, and socio-environmental responsibility. Membership is voluntary. Additionally, SARB 014/2014 establishes guidelines for creating and implementing a socio-environmental responsibility policy, aimed at assisting entities in achieving their socio-environmental objectives.

³⁷ CNN BRASIL. **Indústria de carnes adere formalmente ao protocolo boi na linha com foco em critérios ambientais na compra de gado** (in Portuguese, The meat industry now formally follows the 'Beef in Line' protocol, emphasizing environmental criteria in cattle purchases). Available at: <[https://www.cnnbrasil.com.br/economia/industria-de-carnes-ade-re-formalmente-ao-protocolo-boi-na-linha-com-foco-em-criterios-ambientais-na-compra-de-gado/>. Accessed on: 12/5/2023.](https://www.cnnbrasil.com.br/economia/industria-de-carnes-ade-re-formalmente-ao-protocolo-boi-na-linha-com-foco-em-criterios-ambientais-na-compra-de-gado/)



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³⁸ FORBES AGRO. **Forbes Agro100 2022: As maiores empresas do agronegócio brasileiro.** Available at: <<https://forbes.com.br/forbesagro/2023/01/lista-forbes-agro100-2022-as-maiores-empresas-do-agronegocio-brasileiro/>>. Accessed on: 8/20/2023.

³⁹ THE GUARDIAN. **Revealed: new evidence links Brazil meat giant JBS to Amazon deforestation.** Available at: <<https://www.theguardian.com/environment/2020/jul/27/revealed-new-evidence-links-brazil-meat-giant-jbs-to-amazon-deforestation>>. Accessed on: 8/20/2023.

⁴⁰ The Meat TAC and the Public Livestock Commitment (CPP) represent pledges made by companies within the meat supply chain. Through these commitments, the companies agree not to source livestock from properties involved in deforestation, slave labor, or other socio-environmental violations.

⁴¹ IMAFLORA; 4ª C MARA DE COORDENAÇÃO E REVISÃO, MPF. **Protocolo de Monitoramento de Fornecedores de Gado na Amazônia V1.1.** Available at: <https://www.boinalinha.org/wp-content/uploads/2022/08/Protocolo-Monitoramento-Gado_A4_PORTUGUES_1.1_ALT4.pdf>. Accessed on: 8/20/2023.

⁴² GTFI. **Estudo revela os avanços dos 10 anos do TAC na sustentabilidade da carne.** Available at: <Estudo revela os avanços dos 10 anos do TAC na sustentabilidade da carne – GTFI>. Accessed on: 8/29/2023.

⁴³ IMAFLORA; 4ª C MARA DE COORDENAÇÃO E REVISÃO, MPF. **Protocolo de Monitoramento de Fornecedores de Gado na Amazônia V1.1.** Available at: <https://www.boinalinha.org/wp-content/uploads/2022/08/Protocolo-Monitoramento-Gado_A4_PORTUGUES_1.1_ALT4.pdf>. Accessed on: 8/20/2023.

⁴⁴ IMAFLORA. **Protocolo de Monitoramento de Fornecedores de Gado da Amazônia.** Available in <https://www.boinalinha.org/wp-content/uploads/2022/08/Protocolo-Monitoramento-Gado_A4_PORTUGUES_1.1_ALT4.pdf>. Accessed on: 8/17/2023.

⁴⁵ REPORTER BRASIL. **Pelo segundo ano consecutivo, irregularidades colocam JBS entre piores frigoríficos para MPF** (in Portuguese, For the second consecutive year, irregularities have ranked JBS among the MPF's lowest-rated slaughterhouses). Available at: <<https://reporterbrasil.org.br/2022/12/pelo-segundo-ano-consecutivo-irregularidades-colocam-jbs-entre-piores-frigorificos-para-mpf/>>. Accessed on: 10/5/2023.

⁴⁶ MPF/PA. **Apresentação dos Resultados do 4º Ciclo de Auditorias do TAC da Pecuária** (in Portuguese, Results Presentation for the 4th Audit Cycle of the Livestock TAC). <https://www.mpf.mp.br/pa/sala-de-imprensa/documentos/2022/apresentacao_resultados_4o_ciclo_auditorias_tac_pecuaria_pa_15-dez-2022>. Accessed on: 10/5/2023.

⁴⁷ IMAFLORA. **Pela primeira vez, protocolo organiza as demandas dos supermercados para monitoramento de frigoríficos** (in Portuguese, For the first time, the protocol coordinates supermarket demands for slaughterhouse monitoring). Available at: <<https://www.imaflora.org/noticia/pela-primeira-vez-protocolo-organiza-as-demandas-dos-supermercados-para-monitoramento-de-frigorificos#:~:text=coordenador%20do%20imaflora,-O%20protocolo,existentes%20no%20processo%20de%20monitoramento.>>>. Accessed on: 8/1/2023.

⁴⁸ Launched in 2019 through an initiative by Imaflora, in partnership with the Federal Public Ministry, the project acknowledges the complexities within the livestock sector and aims to hasten the fulfillment of commitments made by the cattle industry in the Amazon. It seeks to promote a supply chain devoid of socio-environmental irregularities by aligning livestock producers, slaughterhouses, supermarkets, investors, public entities, and civil society organizations towards common goals.

⁴⁹ RADAR VERDE. **O que é e para que serve o indicador** (in Portuguese, What the indicator is, and what its purpose). Available at: <<https://radarverde.org.br/o-indicador/>>. Accessed on 8/21/2023.

⁵⁰ ONU. **Declaração das Nações Unidas sobre os Direitos dos Povos Indígenas.** Available in <<https://www.gov.br/funai/pt-br/arquivos/conteudo/cogedi/pdf/legislacao-indigenista/legislacao-fundamental/onu-13-09-2007.pdf>>, accessed on 08/24/2023.

⁵¹ MAPA. **Nota à imprensa – Balança Comercial do Agronegócio – Maio 2023** (in Portuguese, Press Release: Agribusiness Trade Balance – May 2023). Available at: <https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwww.gov.br%2Fagricultura%2Fpt-br%2Fassuntos%2Fnoticias%2Fexportacoes-do-agronegocio-atingem-novo-recorde-novembro-de-maio-e-no-acumulado-do-ano%2Fnotaimprensa05_20231.docx&wdOrigin=BROWSELINK>. Accessed on: 8/27/2023.

⁵² CARRARA, Aniela F.; OLIVEIRA, Milena M.; SILVA, Gabriel Bertolino da. **Exportação da Carne Bovina Brasileira para a União Europeia entre 2008 e 2021: A importância para a balança comercial do agronegócio.** Revista de Economia e Agronegócio – REA. ISSN impresso: 1679-1614. ISSN online: 2526-5539. Vol. 20 | N. 2 | 2022.

⁵³ EUROPEAN COMMISSION. **Joint Press Communiqué following the Second EU-China High Level Environment and Climate Dialogue.** Available at: <https://climate.ec.europa.eu/news-your-voice/news/joint-press-communicue-following-second-eu-china-high-level-environment-and-climate-dialogue-2021-10-10_en>. Accessed on: 8/27/2023.

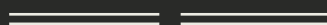
⁵⁴ IDEC. **Carne Legal: Saiba a origem do seu bife** (in Portuguese, Legal Meat: Knowing your steak's origin). Available at: <<https://idec.org.br/em-acao/em-foco/carne-legal-saiba-a-origem-do-seu-bife>>. Accessed on: 8/25/2023.

⁵⁵ MPF. **Carne Legal** (in Portuguese, Legal Meat). Available at: <<https://www.mpf.mp.br/am/carne-legal>>. Accessed on: 8/25/2023.

⁵⁶ DO PASTO AO PRATO. **Quem somos.** Available at: <<https://www.dopastoaoprato.com.br/>>. Accessed on: 8/29/2023.

⁵⁷ B3. **O que é o ISE B3** (in Portuguese, What is ISE B3). Available at: <<https://iseb3.com.br/o-que-e-o-ise#:~:text=O%20objetivo%20do%20%C3%8Dndice%20de,comprometimento%20com%20a%20sustentabilidade%20empresarial.>>>. Accessed on: 8/28/2023.

⁵⁸ *Units* represent a bundle of shares, which can consist of shares from the same category or from different categories, such as common shares and preferred shares.



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