

RESULTS 2023





EXECUTED BY





INTRODUCTION	4
SUMMARY OF 2023 MAIN RESULTS	7
LEARN MORE ABOUT RADAR VERDE	10
METHODOLOGY	13
FULL RESULTS SLAUGHTERHOUSES	21
FULL RESULTS RETAILERS	29



INTRODUCTION

attle ranching is an essential activity for the country. However, it contributes directly to the deforestation of the Brazilian Amazon as it is the activity that most harms the forest to create cattle pastures, which already cover at about 90% of the total deforested area, of which 90% is illegal, <u>according to a study carried out by the Amazon 2030 project</u>. The region also shelters 43% of Brazil's cattle herd⁽¹⁾, according to data disclosed from the Brazilian Institute of Geography and Statistics (Instituto Brasileiro de Geografia e Estatística – IBGE).

Therefore, the fight against deforestation requires that companies in the beef chain that have not yet adopted measures to control their direct and indirect suppliers and invested resources in environmental preservation are encouraged to be more responsible, with the risk of being deprived by consumers who increasingly adopt more conscious attitudes regarding the environment.

One form of control that the industry currently adopts is the requirement for information on the origin of the cattle through the Animal Traffic Guide (Guia de Trânsito Animal - GTA), provided at the time of sale by the direct supplier, the one who sells animals ready for slaughter directly to the industry. However, there is still no control over indirect suppliers that sell calves and steers for fattening to direct suppliers. According to Radar Verde – a public and independent indicator of transparency and control of the beef production and comercialization chain in Brazil – this is one of the major bottlenecks in monitoring the origin of cattle nowadays.

Since 2022, Radar Verde has been assessing initiatives by slaughterhouses and supermarkets, at every stage of their supply chain, that indicate their level of commitment to ensure that the beef distribution is not related to deforestation in the Brazilian Amazon. It aims to provide consumers and sponsors with information to make decisions that support companies committed to preserving the Amazon.

In order to perform the assessment, Radar Verde annually identifies slaugh-terhouses and retailers operating in the Brazilian Amazon and invites them to answer a questionnaire on their environmental policies and present evidence of their implementation. The questionnaire sent to slaughterhouses approaches the policies applied by companies to verify the farms that supply them with livestock directly and indirectly.

(1) Cattle Herd (Steers and Cows), available at: https://www.ibge.gov.br/explica/producao-agropecuaria/bovinos/br



Photo: Paulo Barreto

Throughout the survey carried out in 2023, 132 slaughterhouses⁽²⁾ were identified in the State Inspection System (SIE) and Federal Inspection System (SIF) records operating in the Brazilian Amazon. We also identified 69 supermarkets which correspond to the 50 largest retail chains, according to the Brazilian's Supermarkets Association (Abras) revenue ranking, and the 19 largest supermarkets in the states of the Brazilian Amazon.

(2) In a survey carried out by the Radar Verde's team in 2023, we analyzed that the slaughterhouses 163 Beef and Frigomarca, although they have different names, belong to the same social name group Frigomarca. Therefore, in order to calculate the Level of Exposure to Deforestation, the cattle purchasing zone that the group covers was considered. In this sense, we inform you that the list of results with the total number has been changed from 133 to 132 slaughterhouses



For this year's assessment, Radar Verde both the information collected through questionnaires and public data available on the companies' websites, thus adopting the following indicators:

■ THE LEVEL OF CHAIN CONTROL

Evaluates policies against deforestation and their performance indicators. In this assessment, we verified the policies and indicators for controlling the origin (direct and indirect) of meat presented in the companies' responses to the Radar Verde questionnaire, as well as their effectiveness proven through an external audit carried out by the company.

■ THE LEVEL OF PUBLIC TRANSPARENCY

Assesses whether the information available on the websites of the mapped companies reveals the policy against deforestation in the beef chain and whether its effectiveness is proven through an external audit carried out by the company. To evaluate this indicator, we considered the questionnaire carried out in the Level of Control.

■ THE LEVEL OF EXPOSURE TO DEFORESTATION

Assesses the level of exposure of slaughterhouses to deforestation. The methodology was developed by the "Amazon Institute of People and the Environment" (Imazon) and is based on information about the purchasing zone of each slaughterhouse and its responsibility with previous deforestation, embargoed areas and risk of future deforestation.



Photo: Paulo Barreto



Photo: Paulo Barreto

SUMMARY OF 2023 MAIN RESULTS

- The Level of Control is obtained from the companies' responses to the questionnaires. The results of the 2023 survey indicate that, the way the chain is currently structured in Brazil, slaughterhouses and retailers do not show the Level of Control they have over beef production.
- None of the 132 slaughterhouses answered the Level of Chain Control questionnaire.
- Considering all the 69 retailers identified, only Assaí Atacadista, Carrefour and GPA answered the Level of Chain Control questionnaire. However, none of these companies authorized the disclosure of their final classification.
- The Level of Public Transparency is the result of the assessment of companies' public data available on their websites. In this indicator, only the slaughterhouse Marfrig and the retailer GPA demonstrated that they have intermediate control of the chain, as can be found in the Full Results section.

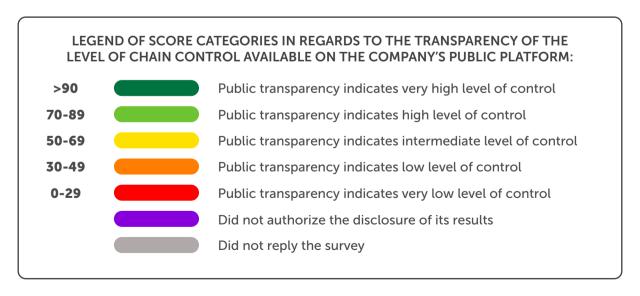


RETAIL

- Considering the 69 retailers, it was possible to assess the Level of Public Transparency of only 47 that had a website (68%). The remaining 22 (32%) did not have a website or it was under maintenance during the analysis period, from July 7th to August 2nd, 2023.
- The retailers with the best results in the Level of Public Transparency are GPA, Assaí, Carrefour and Cencosud Brasil. Overall, 95.65% were classified as having a very low level of control (red); 2.89% had a low level of control (orange); and only 1.44% were classified as having an intermediate level of control (yellow).
- Considering the Level of Public Transparency assessment of the 47 retailers that have a website, only three (Assaí, Carrefour and GPA) audit their direct suppliers. Audits dictate rules that determine whether or not these retailers should continue purchasing from their suppliers, based on their socioenvironmental performance.

Table 1. List of highlighted retailers regarding the Level of Public Transparency performance

RETAILERS (CLASSIFICAÇÃO EM ORDEM ALFABÉTICA)	LEVEL OF CHAIN	LEVEI	OF TRANSPAF	RENCY	
, , , , , , , , , , , , , , , , , , , ,	CONTROL	SUPPLIERS		OVERALL	
		DIRECT INDIRECT		SCORE	
GPA – Grupo Pão De Açucar					
Assaí Atacadista					
Carrefour Comércio e Indústria Ltda.					





SLAUGHTERHOUSES

- Considering the 132 slaughterhouses identified, it was possible to assess the Level of Public Transparency of only 38 (29%) that had a website. The remaining 94 (71%) did not have a website or it was under maintenance during the analysis period, from July 7th to August 2nd, 2023.
- The slaughterhouses with the best results in the Level of Public Transparency are Marfrig, Frigorifico Rio Maria, JBS SA, Masterboi, Minerva, Frigol, Mafrinorte, Fribev, Mercurio, Fortefrigo and Frigorifico Altamira. Overall, 92% were classified in terms of public transparency with a very low degree of control (red); 7% had a low level of control (orange); and only 1% obtained an intermediate control level (yellow).
- The slaughterhouses with the highest Level of Exposure to Deforestation are JBS S/A, (Frialto) Vale Grande Indústria e Comércio de Alimentos S/A, Frigo Manaus, Masterboi LTDA, Minerva, Mercúrio Alimentos S/A, Rio Beef Frigorífico, Amazonboi, Frig S/A and Frigorifico Redentor S/A.

Table 2. List of slaughterhouses with the best performances regarding the Level of Public Transparency

SLAUGHTERHOUSES	LEVEL OF EXPOSURE TO DEFORESTATION (HA)		LEVEL OF CHAIN CONTROL	_	INDIRECT SUPPLIERS BY THE STATE OF THE STATE	-
Marfrig Global Foods S/A		2,503,426				
Fribev – Frigorífico Bela Vista		1,340,958				
Ativo Alimentos Exportadora e Importadora Eireli (Mafrinorte)		2,043,435				
Frigol S/A		1,861,007				
Frigorifico Altamira		486,561				
Frigorifico Fortefrigo Ltda		685,832				
Frigorífico Rio Maria		1,564,952				
JBS S/A		9,666,567				
Masterboi Ltda		3,553,139				
Mercurio Alimentos S/A		3,066,594				
Minerva		3,219,797				



Photo: Paulo Barreto

LEARN MORE ABOUT RADAR VERDE

Created in 2022, Radar Verde is a public and independent indicator of transparency and control of the beef production and comercialization chain in Brazil that aims to give visibility to companies committed to fighting against deforestation in the Brazilian Amazon. It assesses initiatives by slaughterhouses and supermarkets, at every stage of their supply chain, that indicate their level of commitment to ensure that the beef distribution is not related to deforestation in the Brazilian Amazon. The index annually classifies slaughterhouses and supermarkets according to the level of control and transparency over their beef chain.



TDANSDADENCY OF REFE IN THE RDAZILIAN AMAZON

Radar Verde aims to provide relevant information to the end consumer so that they can make decisions on the consumption of deforestation-free beef in their production process, thus supporting companies committed to preserving the Brazilian Amazon, as well as sponsors that are indirectly responsible for the emissions of these companies, in accordance with scope three of the Brazil GHG Protocol Program⁽³⁾.

Radar Verde is an initiative carried out by "O Mundo Que Queremos" Institute (IOMQQ) and "Amazon Institute of People and the Environment" (Imazon), with the funding of the International Climate and Forests Initiative of Norway (NICFI).



The "O Mundo Que Queremos" Institute is an organization focused on socioenvironmental impact projects, currently involved in the main actions to promote and raise awareness about climate change in Brazil



The "Amazon Institute of People and the Environment" (Imazon) is a Brazilian research institution with 32 years of experience, an international reference in studies to promote conservation and sustainable development in the Brazilian Amazon



The International Climate and Forests Initiative of Norway (NICFI), from the Norwegian Ministry of Foreign Affairs, funds projects from civil society, research, higher education and industry organizations working with partners in low- and middle-income countries

⁽³⁾ The Brazil's GHG Protocol Program is an initiative of GVces (Center for Sustainability Studies of "Fundação Getúlio Vargas") for recording and publishing of Greenhouse Gas Emission Inventories (GHG - GreenHouse Gases), through a Public Emissions Registry platform



WHY IS RADAR VERDE NECESSARY?

When an area of forest is destroyed to create new pastures, it directly contributes to deforestation in the Brazilian Amazon. Nowadays, cattle pastures already cover around 90% of the total deforested area in the region, and more than 90% of total deforestation is illegal, *according to a study carried out by the Amazon* **2030** *project*.

In this way, Radar Verde is necessary to encourage the engagement of slaughterhouses and supermarkets to require greater control and transparency from their suppliers in the production of the cattle they sell, since the cattle, from its birth to slaughter, goes through several farms that may be located in deforested areas.

Radar Verde is, for consumers and sponsors, a tool that helps them choose and distinguish reliable companies (slaughterhouses and supermarkets) from those that adopt or support practices that destroy the environment and put the present and future of the Brazilian Amazon at risk.

Foto: Depositphotos





Photo: Depositphotos

METHODOLOGY

ASSESSED COMPANIES

In order to achieve significant representation of two key links in the beef chain, Radar Verde invited slaughterhouses with facilities in the Brazilian Amazon and potential retailers that purchase beef in the region to take part in the research. For the 2023 assessment, 132 slaughterhouses located in the Brazilian Amazon up to December 2022 were identified, which corresponded to approximately 96% of slaughters in the Brazilian Amazon in 2022 according to the Brazilian Institute of Geography and Statistics (IBGE); and 69 retail chains, represented by the 50 largest nationwide according to the revenue ranking of the Brazilian's Supermarkets Association (Abras), as well as up to three of the largest regional chains in each Amazonian state, except from those that were already included in the 50 largest in the country. We found eight regional companies in the list of the 50 largest regional companies. Therefore, we included 19 of them in addition to those already on Abras' list. See Table 3 for further details on these companies. For those companies that were contacted but did not operate in the region, were instructed to inform the situation via email (contato@radarverde.org.br). You will find the complete list of mapped companies at: radarverde.org.br/frigorificos and radarverde.org.br/supermercados. The complete methodology is also available on the Radar Verde website.



Table 3. List of companies subject to Radar Verde assessment at each beef chain link in 2023

Chain link	Object of analysis	Source of information on the chain links and companies' representativeness
SLAUGHTERHOUSES	132 slaughterhouses located in the Brazilian Amazon by December 2022	Data collected by the "Amazon Institute of People and the Environment" (Imazon) from federal (SIFs) ⁽⁴⁾ and state (SIEs) ⁽⁵⁾ inspection systems
SUPERMARKETS	69 largest retail chains according to revenue (50 largest nationwide and the 19 largest in the nine states of the Brazilian Amazon) ⁽⁶⁾	Data collected by the "O Mundo Que Queremos" Institute based on the 2022 revenue ranking of the Brazilian's Supermarkets Association ⁽⁷⁾



Photo: Depositphotos

- (4) Ministry of Agriculture, Livestock and Supply (Ministério da Agricultura, Pecuária e Abastecimento MAPA)
- (5) Registration data in the Brazilian System of Inspection of Products of Animal Origin (Sistema Brasileiro
- de Inspeção de Produtos de Origem Animal Sisbi-POA) of state agencies for agricultural defense
- (6) We considered up to three of the largest regional groups in each Amazonian state, excluding those that were already included in the top 50 nationwide. We found eight regional companies on the top 50 regional list. Therefore, we included 19 of the largest companies in addition to those that were already on the list of the largest nationwide
- (7) Ranking Abras 2022, May 2022, Year 48, no. 547



ASSESSMENT INDICATORS

In 2023, Radar Verde used the following indicators to assess and classify slaughterhouses (Table 4) and retailers (Table 5).

Table 4. Indicators and methods of verification used by Radar Verde to assess slaughterhouses in 2023

Indicators

Methods of Verification and Data Sources

Level of Exposure of Slaughterhouses to deforestation in their respective potential cattle purchase zones (hectares). The indicator demonstrates the extent of the area at risk of deforestation in cattle supply zones

Assessment of the sum of hectares at risk of deforestation estimated in the potential area for the purchase of cattle by the company. The indicator includes:

- Deforested area between 2008 and 2021, revealed by the Project for Monitoring Deforestation in the Brazilian Amazon by Satellite ("Prodes");
- Areas embargoed by "Ibama" for illegal deforestation up to September 2021; and
- Area under risk of deforestation between 2023 and 2025, estimated by "Amazon Institute of People and the Environment" (Imazon), considering the maintenance of the average deforestation rate between 2019 and 2022.

The method of estimating the level of exposure of slaughterhouses to the risks of deforestation is in "Assessment of the Level of Exposure to Deforestation"

The Level of Chain Control:

considers the features of policies against deforestation and performance indicators. Companies with a high level of chain control do not buy and demonstrate that they do not make transactions with farms associated with deforestation, either directly or indirectly. Score from 0 to 100

Assessment of responses to the Radar Verde's questionnaire, which considers the features of policies and indicators of their effective implementation, verified through external audits hired by the company



Indicators

Methods of Verification and Data Sources

The Level of Public Transparency measures the availability of public information on policies against deforestation and performance indicators. Score from 0 to 100 Data collection from public data platforms of slaughterhouses (websites) regarding the Level of Chain Control, considering the information collected by the Radar Verde's questionnaire (above)

Table 5. Indicators and Radar Verde's methods of verification to assess retailers in 2023

Indicators

Methods of Verification and Data Sources

The Level of Chain Control considers the features of policies against deforestation and performance indicators. Companies with a high level of chain control do not buy and demonstrate that they do not make transactions with slaughterhouses without an effective level of chain control. Score from 0 to 100

Assessment of responses to the Radar Verde's questionnaire to be answered by companies, which considers the features of policies and indicators of their effective implementation, verified through external audits

The Level of Public Transparency measures the availability of public information on policies against deforestation and performance indicators. Score from 0 to 100

Data collection from public data platforms of supermarkets (websites) regarding the Level of Chain Control, considering the Radar Verde's questionnaire (above)



ASSESSMENT OF THE LEVEL OF CHAIN CONTROL

Radar Verde evaluates the level of chain control on deforestation through collected information presented in questionnaires sent to slaughterhouses and retailers (Image 1).

The questionnaire sent to the slaughterhouses addresses the policies that the company applies to verify its direct cattle suppliers that sell cattle directly to slaughterhouses (company policies to ensure compliance with socioenvironmental legislation are usually limited to direct cattle suppliers); and indirect cattle suppliers that sell calves and steers to fattening farms that supply cattle for slaughter.

The questionnaire sent to the retailers addresses the policies that the company uses to verify whether their beef suppliers (slaughterhouses) adopt policies for verifying farms, both direct and indirect cattle suppliers.

Em ambos os casos, os questionários solicitam evidências da existência de uma política contra o desmatamento e do desempenho desta política.

Image 1. Cattle and beef commercialization flow between farms and slaughterhouses to supermarkets and companies taking part in the Radar Verde questionnaires

FARMS

2

FARMS

3

SLAUGHTERHOUSES

Questionnaire sent

to slaughterhouses

approaching the

4

SUPERMARKETS

Indirect cattle supplier farms to slaughterhouses (sell calves and steers to fattening farms) Direct cattle supplier farms to slaughterhouses

policies applied by companies to their direct and indirect suppliers Questionnaire sent to supermarkets approaching the policies used by companies with beef suppliers (slaughterhouses) in regards to the verification procedures with their direct and indirect suppliers

Read more about the complete methodology:

<u>radarverde.org.br/metodologia-2023</u>



Photo: Depositphotos

ASSESSMENT OF THE LEVEL OF PUBLIC TRANSPARENCY INDICATOR

In order to assess the Level of Transparency of slaughterhouses and retailers, Radar Verde collects public data available on the company's website. The data collected refers to the policy to control deforestation in the beef production chain and its effectiveness, identified through external audits performed by the companies. For this purpose, Radar Verde considers the same questionnaires that measure the Level of Chain Control, which verifies the policies and indicators that companies implement to track the origin of the beef.

In order to assess the level of chain control of companies that buy beef (slaugh-terhouses and retailers), Radar Verde takes into consideration the commitments and practices they apply to their direct and indirect suppliers. The aspects are measured by the companies' environmental policy, which corresponds to 20% of the assessment, and by the score and coverage of the external audit that verifies the proper policy implementation, equivalent to up to 80% of the assessment.

In the end, Radar Verde classifies companies (both slaughterhouses and retailers) according to the effectiveness of its socioenvironmental policy, measured by the Level of Public Transparency and the Level of Chain Control.



ASSESSMENT OF THE LEVEL OF EXPOSURE TO DEFORESTATION INDICATOR

Radar Verde survey assess the Level of Exposure to Deforestation of every slaughterhouse located in the Brazilian Amazon that has state inspection systems (SIE) and federal inspection systems (SIF), corresponding to approximately 96% of cattle slaughter in the region according to the Brazilian Institute of Geography and Statistics (IBGE) (2023)⁽⁸⁾.

In order to calculate the level of Exposure to Deforestation, the potential cattle purchase zone of each slaughterhouse was overlapped with the risk variables: deforestation, risk of future deforestation and embargoed areas. This overlap allowed the final definition of the level of exposure to deforestation, which corresponds to the sum of the following areas, within each potential purchase zone:

- Deforested area between 2008 and 2021, disclosed by the Deforestation Monitoring in the Brazilian Amazon by Satellite Project (Monitoramento do Desmatamento da Floresta Amazônica Brasileira por Satélite – PRODES);
- Embargoed areas by Ibama due to illegal deforestation, up to September 2021;
- Area with potential risk of deforestation between 2023 and 2025, forecasted by Imazon, considering the maintenance of the average deforestation rate between 2019 and 2022

These factors can represent risk as it follows:

■ EMBARGOED AREAS DUE TO ILLEGAL DEFORESTATION

In case slaughterhouses buy cattle from these areas, they could face legal action and harm their reputation.

■ RECENT DEFORESTATION OUTSIDE OF EMBARGOED AREAS

Even if deforestation has occurred in the past, purchasing cattle from these areas can be considered as direct or indirect support for illegal deforestation, as more than 90% of deforestation in the region has been illegal, around 90% of the area deforested in agricultural use are pastures and impunity prevails. A study showed that Ibama monitored only 1.3% of deforestation alerts between 2019 and 2020.⁽⁹⁾

(8) Quarterly Animal Slaughter Survey, Table 1092, available through the link: https://sidra.ibge.gov.br/tabela/1092
(9) Coelho-Junior, M. G., Valdiones, A. P., Shimbo, J. Z., Silgueiro, V., Rosa, M., Marques, C. D. L., Oliveira, M., Araújo, S., & Azevedo, T. (2022). Unmasking the impunity of illegal deforestation in the Brazilian Amazon: a call for enforcement and accountability. Environmental Research Letters, 17(4), 041001. https://doi.org/10.1088/1748-9326/AC5193



■ RISK OF FUTURE DEFORESTATION

The areas most at risk of deforestation between 2023 and 2025 should be a concern for slaughterhouses, as if they continue to purchase cattle from these regions, without strict origin control (including from indirect suppliers), they could be accused of contributing to future deforestation. The operation of companies in these zones can affect their ability to raise fundings, maintain and conquer markets.

SCHEDULE

The following schedule of activities related to the methodology was used for the 2023 survey:

JUNE

Official release of the year 2 of Radar Verde's survey assessments.

JULY

Questionnaires submission to mapped companies in order to assess their Level of Chain Control. At the same time, from July 7th to August 2nd, the mapped establishments were evaluated by the Radar Verde team regarding their Level of Public Transparency.

AUGUST

Deadline for questionnaire responses. Companies that submitted the questionnaire and the Term of Consent duly signed were evaluated regarding their Level of Chain Control.

OCTOBER

Feedback and consideration for companies taking part in the Level of Chain Control and the conclusion of the seven-day deadline for answering the authorization to disclose the results.

NOVEMBER

Disclosure of Results of 2023 Radar Verde survey.

FULL RESULTS SLAUGHTERHOUSES



Radar Verde results of each slaughterhouse will be presented in a table with four pieces of information:

- 1. Company name in alphabetical order.
- 2. Level of exposure to the risk of deforestation (hectares) in their respective potential cattle purchase zones (hectares). In case of companies with several slaughterhouse facilities in the region, the level will be the sum of the areas at risk of deforestation.
- 3. Color corresponding to its classification in the Level of Beef Chain Control assessment, which companies voluntarily took part in, according to the legend below.
- 4. Color corresponding to its classification in the Level of Transparency of Chain Control assessment, which considers companies' public data, according to the legend below.

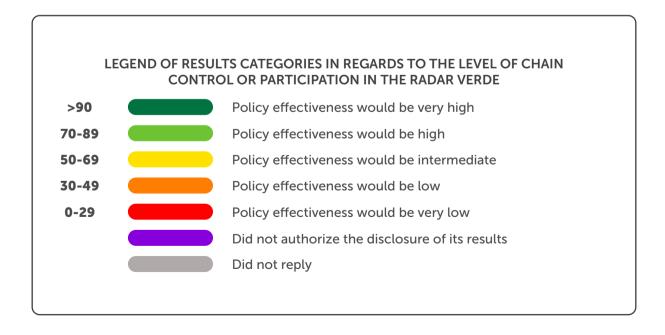




TABLE 6. MAPPED SLAUGHTERHOUSES IN 2023 (IN ALPHABETICAL ORDER)

		Г			
SLAUGHTERHOUSES	LEVEL OF EXPOSURE TO DEFORESTATION (HA)	CONTROL		EVEL O	
		LEVEL OF CHAIN CON	DIRECT SUPPLIERS	INDIRECT SUPPLIERS	OVERALL SCORE
Abatedouro de Bovinos Sampaio Ltda — ME	782,193				
Abatedouro e Frigorífico São Francisco	325,896				
Abatedouro Independência	555,072				
Abatedouro Monte Cristo	237,536				
Abatedouro RO	748,730				
Abatedouro São Jorge	34,263				
ABF Boi Norte	236,498				
Agra Agroindustrial De Alimentos S/A	259,201				
Agropam – Agricultura E Pecuaria Amazonas S/A	713,172				
Alexandrino	197,272				
Alimentos A.M.I. Eireli – Epp	23,229				
Alvorada	507,920				
Amazonboi	2,994,099				
Amazônia Alimentos	88,426				
Ativo Alimentos Exportadora e Importadora Eireli (Mafrinorte)	2,043,435				
Aracarnes	62,695				



SLAUGHTERHOUSES	LEVEL OF EXPOSURE TO DEFORESTATION (HA)	CONTROL		EVEL O	
		LEVEL OF CHAIN CON	DIRECT SUPPLIERS	INDIRECT SUPPLIERS	OVERALL SCORE
Arrudão	97,660				
Beef D'ouro	1,126,820				
Boi Bom	412,552				
Boi Brasil	1,460,602				
Boi Verde	55,888				
Bonanza	245,745				
Bovinorte	2,620,591				
C R O Ribeiro	330,791				
Carnes Boi Branco Ltda	658,827				
Casfrisa	98,289				
Comcarne Comercial de Carne Ltda(Fribal)	834,000				
Cooperativa dos Produtores de Carne e Derivados de Carne	149,920				
Distriboi	2,398,251				
Fribev – Frigorífico Bela Vista	1,340,958				
Frical Frigorífico Ltda — Epp	115,234				
Frican	251,707				
Frig S/A	2,812,062				
Frigo 10 Ltda	401,468				
Frigo Manaus	4,247,987				
Frigoari – Frigorífico Ariquemes	1,596,220				
Frigoboi	495,624				
Frigobom	507,032				
Frigocal	227,200				
Frigodhias	43,539				
Frigoestrela S/A	255,077				
Frigol S/A	1,861,007				
Frigoli Alimentos(Nome Atual: Frigonosso)	333,529				
Frigolider	424,168				
Frigomarca	2,372,000				



SLAUGHTERHOUSES	LEVEL OF EXPOSURE TO DEFORESTATION (HA)	Y
	LEVEL OF CHAIN CONTROL DIRECT SUPPLIERS INDIRECT SUPPLIERS OVERALL SCORE OVERALL SCORE	111000
	972,181	
Frigonelore	70,230	
Frigonort	358,433	
Frigonorte Acre	52,057	
Frigoporto	546,080	
Frigoraça	1,481,563	
Frigordo Indústria, Comércio Importação e Exportação	112,942	
Frigorífico 2R	352,208	
Frigorífico Agro Açailândia	308,792	
Frigorífico Alemão	67,013	
Frigorífico Altamira	486,561	
Frigorífico Amazonas	293,000	
Frigorífico Araticum	269,289	
Frigorífico Areia Branca	717,010	
Frigorífico Castanheira	900,184	
Frigorífico Dallas	875,485	
Frigorífico Dona Raimunda	26,566	
Frigorífico Fortefrigo Ltda	685,832	
Frigorífico III Irmãos	54,383	
Frigorífico Jatobá	5,602	
Frigorífico Krause	215,586	
Frigorífico Modelo	518,129	
Frigorífico Monte Verde Ltda (Nome Atual: Grancarnes)	1,631,768	
Frigorífico Norte Carnes	451,378	
Frigorífico Nosso Ltda	1,481,561	
Frigorífico Pantanal	119,198	
Frigorífico Paraíso	629,305	
Frigorífico Peso Do Boi	161,649	
Frigorífico Redentor S/A	2,764,050	



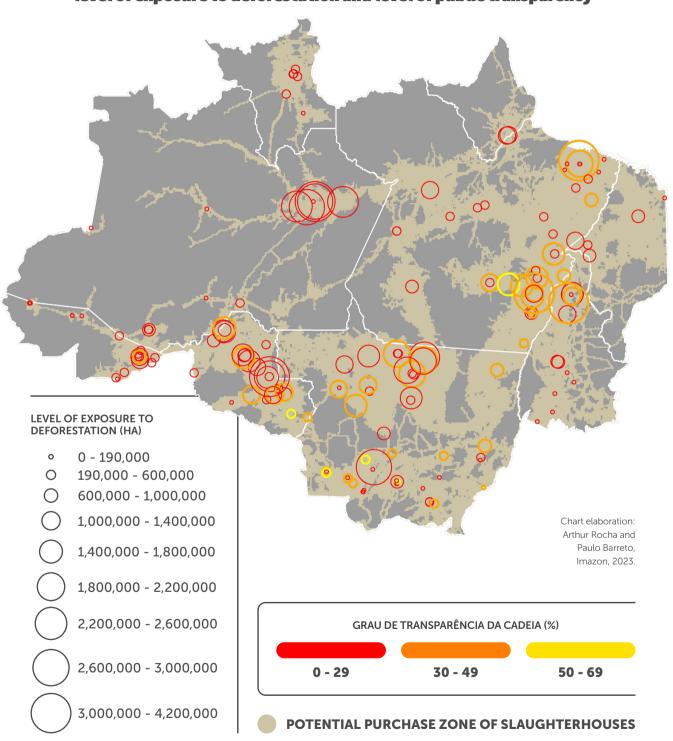
SLAUGHTERHOUSES	LEVEL OF EXPOSURE TO DEFORESTATION (HA)	TROL		EVEL O	
		LEVEL OF CHAIN CONTROL	DIRECT SUPPLIERS	INDIRECT SUPPLIERS	OVERALL SCORE
Frigorífico Rio Bonito	13,591				
Frigorífico Rio Maria	1,564,952				
Frigorífico Roma	262,050				
Frigorífico Rondonia	477,463				
Frigorífico Rondonópolis Ltda	45,418				
Frigorífico Rs Ltda Epp	172,736				
Frigorífico Santa Cruz (Antigo Frigorífico BN)	435,691				
Frigorífico São José (Nome Atual: Ouro Verde)	165,406				
Frigorífico São Sebastião	52,634				
Frigorífico Savana	4,323				
Frigorífico Sita	462,127				
Frigorífico Valencio Ltda	1,413,526				
Frigorífico Ypê	160,176				
Frigosena	246,775				
Frigotefé	12,439				
Frigovale do Guapore	72,408				
Frigovan	389,925				
Frigoverde	250,527				
Frinort Tomé-Açu (Parafrigo)	272,215				
Frisacre Frigorífico Santo Afonso Do Acre Ltda	1,346,337				
Golden Imex Eireli (Bmg Food's)	1,111,033				
Indústria Frigorífica Boa Carne Ltda	446,623				
Irmãos Gonçalves, Comércio e Indústria Ltda	1,353,352				
J.V. Pessoa (Rio Branco)	291,115				
J.P.	7,898				
Jafrig Frigorífico Ltda	472,721				
JBS S/A	9,666,567				
LKJ – Frigorífico Ltda	1,452,623				
Mafrico	2,259,483				



SLAUGHTERHOUSES	LEVEL OF EXPOSURE TO DEFORESTATION (HA)	CONTROL		EVEL O	
		LEVEL OF CHAIN CON	DIRECT SUPPLIERS	INDIRECT SUPPLIERS	OVERALL SCORE
	134,012				
Marfir – Companhia de Desenvolvimento de Roraima	401,468				
Marfrig Global Foods S/A	2,503,426				
Masterboi Ltda	3,553,139				
Mat. Frig. Amazonia Empreendimentos (Friaap)	1,055,704				
Matadouro Bela Vista	536,000				
Matadouro Braga Empreendimentos Ltda (Frimap)	1,104,646				
Matadouro e Frigorífico Aliança	587,102				
Matadouro Juba	37,123				
Mercurio Alimentos S/A	3,066,594				
Mfb Matadouro Frigorífico Bezerra	243,845				
Minerva	3,219,797				
Naturafrig Alimentos Ltda	112,589				
New Beef Company	326,843				
Nova Carne	10,581				
Nutrifrigo Alimentos	14,657				
Organizações G.C. Ltda.	403,308				
Pantaneira Indústria e Comércio de Carnes e Derivados	138,862				
Plena Alimentos Ltda	608,543				
R.C. Moreira Costa – Frical	1,212,169				
R. Batista	2,277				
R.E. Ribeiro Soares – ME	1,138,904				
Refúgio	73,876				
Rio Beef Frigorífico	3,063,956				
Sf Indústria E Comércio De Carnes - Eireli	713,504				
Socipe	90,082				
Total S. A.	1,637,868				
Vale Do Tapajós – Frivata	293,538				
Vale Grande Industria e Comercio de Alimentos S/A (Frialto)	4,251,170				



Chart 1. Slaughterhouses in the Brazilian Amazon: purchasing zones, level of exposure to deforestation and level of public transparency

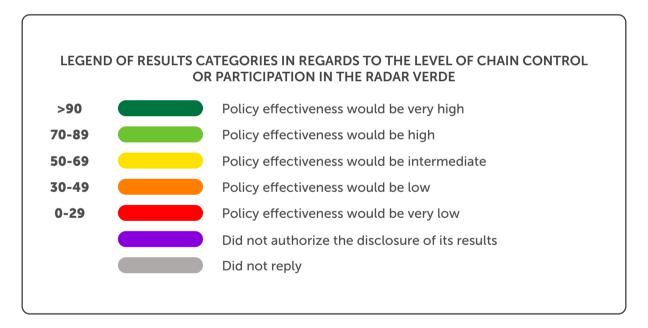


RESULTADOS COMPLETOS RETAIL



The results of each retail will be presented in a table with three pieces of information:

- 1. Company name in alphabetical order.
- 2. Color corresponding to its classification in the Level of Beef Chain Control assessment, which companies voluntarily took part in, according to the legend below.
- 3. Color corresponding to its classification in the Level of Transparency of Chain Control assessment, which considers companies' public data, according to the legend below.



LEGEND OF SCORE CATEGORIES IN REGARDS TO THE PUBLIC TRANSPARENCY OF THE LEVEL OF CHAIN CONTROL AVAILABLE ON THE COMPANY'S PUBLIC PLATFORM:

>90	Public transparency indicates very high level of control
70-89	Public transparency indicates high level of control
50-69	Public transparency indicates intermediate level of control
30-49	Public transparency indicates low level of control
0-29	Public transparency indicates very low level of control



TABLE 07. MAPPED RETAILERS IN 2023 (IN ALPHABETICAL ORDER)

RETAILERS (CLASSIFICAÇÃO EM ORDEM ALFABÉTICA)	LEVEL OF CHAIN	LEVEI	_ OF TRANSPAF	RENCY
, , , , , , , , , , , , , , , , , , , ,	CONTROL	SUPP	PLIERS	OVERALL
		DIRECT	INDIRECT	SCORE
A. Angeloni e Cia. Ltda				
A.C.D.A. Importação e Exportação Ltda				
A.R. Filho & Cia. Ltda				
A.S. Aguiar e Cia. Ltda				
Aloizio Rocha da Silva				
AM/PM Comestíveis Ltda				
Assaí Atacadista				
Atacadão Dia a Dia S/A				
Atakarejo				
Bistek Supermercados Ltda				
Brasil Distr. Indústria e Com. de Produtos Alimentícios Ltda				
Carrefour Comércio e Indústria Ltda				
Casa Santa Ltda				
Cema Central Mineira Atacadista Ltda. (Villefort)				
Cencosud Brasil Comercial S/A				
Cia. Beal de Alimentos				
Comercial Zaffari Ltda				
Comercial Zaragoza Imp. Exp. Ltda				
Companhia Sulamericana de Distribuição				
Companhia Zaffari Comércio e Indústria				
Coop - Cooperativa de Consumo				
Costa Atacadão (Grupo JC)				
Covabra Supermercado Ltda				



RETAILERS (CLASSIFICAÇÃO EM ORDEM ALFABÉTICA)	LEVEL OF CHAIN	LEVEI	OF TRANSPAR	ENCY
(CEASSII ICAÇÃO EM ORDEM ALI ABETICA)	CONTROL	SUPP	LIERS	OVERALL
		DIRECT	INDIRECT	SCORE
D'avó Supermercados Ltda				
Del Moro & Del Moro Ltda				
Dma Distribuidora S/A				
Formosa Supermercados & Magazine Ltda				
Frios Vilhena Imp. e Exp. Ltda				
Giassi e Cia. Ltda				
Giga BR Distribuidor E Atacadista Ltda				
GPA – Grupo Pão de Açucar				
Grupo Super Nosso				
Hilário José Weiller – Epp				
Irmãos Domingos Ltda – 162				
Irmãos Muffato S/A				
Jad Zogheib & Cia. Ltda				
Juba Supermercado Ltda				
Koch Hipermercado S/A				
L & G Alimentos do Brasil Ltda				
Líder Comércio e Indústria Ltda				
M.a. Silva e Silva Ltda				
Mart Minas Distribuição Ltda				
Mateus Supermercado S/A				
Mundialmix Comércio de Alimentos Ltda				
Pague Menos Comércio de Produtos Alimentícios Ltda				
Quartetto Supermercados Ltda				
Rachel Loiola Ltda				
Realmar Distribuidora Ltda				
Rmc Comércio De Alimentos Ltda				
São Cristovão Investimentos E Participações S/A				
Savegnago Supermercados Ltda				
Sdb Comércio De Alimentos Ltda (Grupo Pereira)				
Silva E Barbosa Comércio de Alimentos Ltda				
Sonda Supermercado Exp. Imp. Ltda				
Supermercado A Luzitana Ind. Com. Ltda				
Supermercado Bahamas S/A				
Supermercado Biasi Ltda				
Supermercado Cidade Ltda				
Supermercado Nordestão Ltda				



RETAILERS (CLASSIFICAÇÃO EM ORDEM ALFABÉTICA)	LEVEL OF CHAIN CONTROL	LEVEL OF TRANSPARENCY		
		SUPPLIERS		OVERALL
		DIRECT	INDIRECT	SCORE
Supermercado Superpão S/A				
Supermercados ABC				
Supermercados BH Comércio De Alimentos S/A				
Supermercados Cavicchiolli Ltda.				
Supermercados Irmãos Lopes S/A				
Supermercados Jaú Serve Ltda				
Tenda Atacado Ltda				
Torre e Cia. Supermercados S/A				
Unidasul Distribuidora Alimentícia S/A				
V.M.J. Comércio de Produtos Alimentícios Ltda				

SHOULD YOU HAVE ANY QUERIES,
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