RADAR VERDE

TRANSPARENCY OF BEEF IN THE BRAZILIAN AMAZON

2022 INDICATOR

CONTROL EVALUATION OVER THE BEEF PRODUCTION CHAIN

Imazon

O MUNDO que queremos

RADAR VERDE

TRANSPARENCY OF BEEF IN THE BRAZILIAN AMAZON

EXECUTED BY

Imazon

O MUNDO que queremos

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INTRODUCTION

Chances are that the beef you consume comes from farms where, one day, was the Amazon Forest. Cattle raising is the main driver of deforestation in the region. Cattle pastures currently cover about 90% of the total deforested area and more than 90% of new deforestation is illegal. At least 93 million of more than 218 million of beef cattle raised in Brazil are located in the states of Acre, Amapá, Amazonas, Mato Grosso, Pará, Rondônia, Roraima, Tocantins and Maranhão[1].

The Amazon is home to the largest tropical forest in the world, which provides several services to humankind. Due to its carbon stock, the forest is vital to the climate balance on the planet. It is also essential to the origin of rainfall in the significant part of the continent, housing one of the wealthiest diversities in the world. Additionally, forest products have an economic potential that has not yet been explored. For all that and more, the sustainable use of the Amazon is one of the biggest challenges in Brazil.

Consumers play an important role and can help stop deforestation in the world's largest tropical forest by demanding that supermarkets and slaughterhouses the guarantee that the beef they sell does not originated from irregularly deforested lands. However, to guarantee the origin of beef, the entire production chain must be monitored, starting from the ranches where the calf is born, following all of the ways it goes through, until the beef is served at our dining tables.

For that reason, Imazon (Amazon Institute of People and the Environment) and O Mundo Que Queremos Institute, funded by NICFI (Norway's International Climate and Forest Initiative) and iCS (Institute for Climate and Society), have developed a new public indicator for transparency and control of the production chain and marketing of beef in Brazil: **RADAR VERDE**.

It is an indicator that will annually show which slaughterhouses and supermarkets have demonstrated better control and transparency in the production chain of the beef they sell. **RADAR VERDE** will be a tool for consumers to choose where they want to purchase the beef they consume and for society to better understand the beef origin using the evaluation of control over its production chain.

(1) Brazilian Institute of Geography and Statistics (IBGE) – Municipal Livestock Survey (2022)

WHO WE ARE

RADAR VERDE is a partnership between Imazon and O Mundo Que Queremos Institute, funded by the Norway's International Climate and Forest Initiative (NICFI) and the Institute for Climate and Society (iCS).

O Mundo Que Queremos Institute is an organization aimed at projects that generate social and environmental impact, currently engaged in key actions across Brazil to spread and raise awareness on climate changes

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Imazon (Amazon Institute of People and the Environment) is a Brazilian research institution with 32 years of research, international reference in studies that promote preservation and sustainable development of the Amazon

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NICFI (Norway's International Climate and Forest Initiative), from the Ministry of Foreign Affairs in Norway, funds civil society organization's projects on research, higher education and the industry, which work with partners in low- and medium-income countries

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The Institute for Climate and Society is a philanthropic organization that promotes prosperity, justice and low carbon development in Brazil, working as a bridge between international and national funders and local partners

1

GET TO KNOW RADAR VERDE

RADAR VERDE is an indicator that shows consumers which slaughterhouses and supermarkets have better control and transparency over their beef chain. With the index, end consumers can understand the level of control that the slaughterhouse and/or retailer has over deforestation in the Amazon during its production cycle.

RADAR VERDE displays, by means of a public index, the commitment of slaughterhouses and supermarkets in every step of their supply chain, to guarantee that the beef they sell is not related to the Brazilian Amazon deforestation.

WHY IS IT NECESSARY?

Cattle raising in the Amazon is strongly associated with deforestation. Planted pastures currently cover about 90% of the deforested lands, and more than 90% of the total deforestation is illegal, **according to a study carried out by the Amazon 2030 project**[(2)].

LINK TO THE STUDY

RADAR VERDE is necessary to encourage the engagement of slaughterhouses and supermarkets in demanding better control and transparency from their suppliers. Once the calf is born to its slaughter and beef processing, it goes through many ranches, and some of them can be located in irregularly deforested lands.

Within that chain, there are direct and indirect suppliers. A direct supplier is the one that sells cattle ready to be slaughtered directly to the industry. Indirect ones are those who sell cattle to direct suppliers.

(2) BARRETO, Paulo. *Políticas para desenvolver a pecuária na Amazônia sem desmatamento* [Policies to develop livestock farming in the Amazon with no deforestation]. 2030 Amazon Initiative. Aug 2021

However, the slaughterhouses currently accesses only information from direct suppliers when receiving cattle through the Animal Transit Guide (GTA). Thus, one of the major bottlenecks in monitoring the origin of cattle is with indirect suppliers, since the industry only receives the data corresponding to those that supply directly.

It is necessary to guarantee methodologies for monitoring, transparency and control over supply chains to reach indirect suppliers. This way, clear information on the origin of the cattle that arrived at the slaughterhouse is obtained, making sure the cattle did not come from properties illegally deforested, with environmental embargo, slavery work, overlapping Conservation Units and/or Indigenous Territories.

RADAR VERDE, for its turn, evaluates these companies' social and environmental policy and converts the evaluation into an index, according to its own published methodology, so that it is, for consumers, a clear and user-friendly tool that will help them identify the companies with best practices.

2

GENERAL APPROACH

RADAR VERDE indicates, once a year, the policies of two key connections in the chain that link beef consumers to livestock farms: slaughterhouses, which slaughter the cattle, and supermarkets, which sell the beef to end consumers.

In this first edition, **RADAR VERDE** considered the existence of business policies against deforestation and the effectiveness of such policies, that is, the potential they have to effectively contribute to the reduction of deforestation, as well as the level of implementation and the possibility of verifying such policies.

According to the consent of these companies, the result can be accessed by all stakeholders, from consumers to investors, so they can make choices that value best performing companies.

3

METHODOLOGY

Slaughterhouses and retailers (supermarkets) identified by **RADAR VERDE's** team were invited to answer a questionnaire regarding the social and environmental policies to fight deforestation in the Brazilian Amazon adopted in the beef production chain and marketing. The policies and their performance level were identified and rated resulting in an index that will be of public domain, and that can be extensively disclosed on mainstream and social media.

How the companies (slaughterhouses and retailers) of the beef production chain performing in the Brazilian Amazon were identified

SLAUGHTERHOUSES

Imazon (Amazon Institute of People and the Environment) mapped 113 active slaughterhouses under Federal (SIF) and State (SIE) Inspection Service located in the Brazilian Amazon.

However, a large part of the contact information of the mapped companies is not disclosed or is not updated on public platforms, so that, of the universe of 113 active slaughterhouse groups identified in the Brazilian Amazon region, only 90 of them could be effectively contacted to participate in **RADAR VERDE**.

RETAILERS

In order for the sample to be more representative, we included the 50 largest supermarkets in Brazil according to the list of Abras (Brazilian Association of Supermarkets). We also included the 19 largest supermarkets in the states of the Brazilian Amazon. With that, we amounted 69 invited companies.

Who was invited to participate in Radar Verde

Livestock chain companies identified as performing in the Brazilian Amazon and retailers that sell the products of these companies (considering their size and location), according to the methodology presented at the end, were invited by email and/or telephone to participate in the initiative.

If they do not work in the region and are contacted by **RADAR VERDE's** team, they could provide clarifications via email **contato@radarverde.org.br**.

LINK TO THE EMAIL

The questionnaire characteristics and the scoring system

The companies contacted and that agreed to participate, by signing a term, answered **RADAR VERDE's** questionnaire. Analyzing each company's answers resulted in a total score from 0 to 100. (Table 1)

TABLE 1 • CLASSES OF RESULTS OF RADAR VERDE AND RESPECTIVE SCORES

CLASSES OF SCORE	COLOR SCALE	PERFORMANCE OF THE POLICY DEMONSTRATED BY THE COMPANY
>90		The score indicates that the effectiveness of the policy would be very high
70-89		The score indicates that the effectiveness of the policy would be high
50-69		The score indicates that the effectiveness of the policy would be intermediary
30-49		The score indicates that the effectiveness of the policy would be low
>0-29		The score indicates that the effectiveness of the policy would be very low

The questionnaire addressed issues to identify the social and environmental policies of the company and the way their governance is conducted, as well as to identify the level of development of such policy on the monitoring of the legality of their (direct and indirect) beef cattle suppliers and their commitment against deforestation in the states of the Brazilian Amazon, based on the following aspects:

- **Ensuring the supplier's participation in the Environmental Regularization Program**
- **Ensuring that supplier farms are not on the lists of embargoed areas published by Ibama, ICMBio and state environmental agencies**
- **Ensuring that the farms do not overlap with Indigenous Territories (IT) recognized by declaratory ordinance issued by the Ministry of Justice or by an act of FUNAI**
- **Ensuring that farms do not overlap with federal, state and municipal Conservation Units (CU)**

- **Ensuring that suppliers do not have a first degree judicial conviction, and until this is not reformed by higher levels, due to invasion of IT, agrarian violation, land-grabbing and/or deforestation and other agrarian conflicts**

- **Requiring an environmental license**

The themes exemplified above indicate, together with others, fundamental aspects to identify the policy and its performance level regarding the companies' commitment to fighting deforestation in the Brazilian Amazon, allowing the compliance of their direct and indirect suppliers to be verified through the enforcement of a well-established, robust and verifiable social and environmental policy.

Questionnaires were divided into large blocks (see annex 1) with diagnostic questions to build a company profile and its classification according to the score obtained. The total score considered the policy's characteristics and its implementation's performance, considering direct and indirect suppliers, whereas 100 (one hundred) is the maximum possible score for the characteristics of the policies and the performance of their execution.

The final score was weighted and the score referring to the policy's characteristics is worth 20% of the total (10% for each step of the chain) and the score for its performance is worth 80% (40% for each step of the chain). This score was framed in descriptive bands of the performance level of the policies adopted against deforestation (Table 2). The adoption and publication of independent audits by companies had a relevant score in the policy and performance item. Performance was measured by the percentage of purchases in compliance with the policies, based on independent audits.

STEPS OF THE ANALYSIS

The following table shows RADAR VERDE'S survey process

TABLE 2 • RADAR VERDE'S EVALUATION STEPS

1 RADAR VERDE'S CONCEPT PRESENTATION

OBJECTIVE: Inform Radar Verde's purpose, deadlines, and open the opportunity for clarification of questions

HOW IT WAS DONE: Contact by phone and forwarding the material by e-mail to the previously listed establishments. At the end of the presentation of the project, the contact info of the legal representative of the company, who must sign the consent form for participation in Radar Verde, and of the person responsible for completing the questionnaire, granting the contact of the team member of Radar Verde's team to clarify any questions, was requested

WHO DID IT: Radar Verde's Team

WHEN (DEADLINE): After meeting with sector managers to present the project

2 CLARIFICATIONS OF EVENTUAL QUESTIONS

OBJECTIVE: Inform Radar Verde's purpose, expected deadlines, and open the opportunity for clarification of eventual remaining questions

HOW IT WAS DONE: At the end of the project presentation, a moment was made available for the respondent to clarify their doubts (for example: information about the evaluation deadline, elucidation of which evidence is considered valid for the questions, form of evaluation, etc.)

WHO DID IT: Radar Verde's Team

WHEN (DEADLINE): After meeting with sector managers to present the project

3 CLOSING OF DATA COLLECTION

OBJECTIVE: Finalize the data collection stage

HOW IT WAS DONE: After signing the consent form, the questionnaire was sent and, after 45 days, the data was collected, gathering the questionnaires in Excel as well as the evidence received

WHO DID IT: Radar Verde's Team

WHEN (DEADLINE): 45 days after sending questionnaires

4 DATA ANALYSIS AND ORGANIZATION

OBJECTIVE: Account for the score of each company and assign an index according to the performance of the policies, measures and actions adopted against deforestation in the Amazon

HOW IT WAS DONE: The responses to the questionnaire and their evidence (when necessary) were accounted for the ranking of each company in the score to be released by Radar Verde

WHO DID IT: Radar Verde's Team

WHEN (DEADLINE): June to September (2022)

5 DISCLOSING RESULTS

OBJECTIVE: Publish the general index with the classification of each participating company that authorized the disclosure of their score. Additionally, disclose the companies that were identified as performing in the Brazilian Amazon but that did not participate in the survey, withdrew from the survey, or did not authorize the disclosure of their results

HOW IT WILL BE DONE: The disclosure will take place by exposing the index in a report and online platforms (websites, social media, etc.) and TV

WHO DID IT: Radar Verde's Team and o ((eco)) team

WHEN (DEADLINE): December (2022)

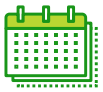
The list of companies identified as performing in the Brazilian Amazon according to the indicated methodology, but that did not participate in the survey, withdrew from the survey, or did not authorize the disclosure of their results, will be disclosed at the end of the survey. Companies that adhered to **RADAR VERDE** and did not send answers with clear evidence or descriptions for a given question will have the respective question's score reset to zero.

Not answering the question will also imply zero score for that question.

FIGURE 5 • SIMPLE FLOW OF EVALUATION

COMPANY IS INVITED TO PARTICIPATE IN THE EVALUATION

It is necessary to sign a consent form before sharing data through the questionnaire



DEADLINE OF 45 DAYS TO SUBMIT THE QUESTIONNAIRE AND EVIDENCE

Answers with generic links and no clear description or evidence will get a score of zero

EVALUATION OF QUESTIONNAIRES BY RADAR VERDE'S TEAM

Companies that do not send the questionnaire within the deadline will have their score reset to zero (0) and rank zero

CLASSIFICATION OF COMPANIES AND DISCLOSURE OF RESULTS

ANNEX 1 • EVALUATION CRITERIA

Below are the tables with the distribution of topics present in the questionnaires and their criteria. For topics identified as "characterization", companies that adhered to **RADAR VERDE** and answered the questionnaire were not required to answer these questions, which did not affect their score. Scores were only assigned to questions on the topics indicated using the "score" criterion. Large blocks of questionnaires and evaluation criteria:

TO SLAUGHTERHOUSES

EVALUATION CRITERIA		TOPIC
	1	**Objective**
	2	**Score methodology**
CHARACTERIZATION	**3**	**Company's identification**
CHARACTERIZATION	**4**	**Company's general information**
SCORE	**5**	**Social and environmental corporate responsibility policy**
	5.1	**The characteristics of the social and environmental corporate responsibility policy including against deforestation in the farms that supply cattle in the states of the Brazilian Amazon**
CHARACTERIZATION	**5.2**	**About the verification of compliance with social and environmental policy, including against deforestation in the farms that supply cattle**
SCORE	**5.3**	**About audits**
CHARACTERIZATION	**5.4**	**About reporting channels**
CHARACTERIZATION	**6**	**About adding blocked suppliers back again**

CHARACTERIZATION: This is a topic that does not generate scores, but contextualizes fundamental information about the company, which is why we kindly request the engagement of participating companies
SCORE: This is a topic for which a score is assigned and – therefore – generates a score

TO RETAILERS

EVALUATION CRITERIA		TOPIC
	1	Objective
	2	Score methodology
CHARACTERIZATION	3	Company's identification
CHARACTERIZATION	4	About the existence of retailer's policy on social and environmental corporate responsibility against deforestation
CHARACTERIZATION	5	The characteristics of the social and environmental corporate responsibility policy of the company against deforestation
SCORE	5.1	What the retailer demands from slaughterhouses that supply beef
	5.1.1	About the social and environmental policy
CHARACTERIZATION	5.1.2	About criteria for slaughterhouses to add blocked farms back again to the list of cattle suppliers
SCORE	5.2	About the characteristics of the social and environmental corporate responsibility policy of the company against deforestation
CHARACTERIZATION	5.3	About the community regarding the beef origin

CHARACTERIZATION: This is a topic that does not generate scores, but contextualizes fundamental information about the company, which is why we kindly request the engagement of participating companies
SCORE: This is a topic for which a score is assigned and – therefore – generates a score

TABLE 3 • RESULTS METHODOLOGY

The final score corresponds to the sum of the scores for the policy's characteristics and the sum of the scores for the proven implementation of the policy (by external audits) weighted. Policy characteristics have a 20% weight and implementation performance has an 80% weight, according to the formula below

FINAL SCORE = ((A+B)*C*0.2) + (D*E*0.8)

POLICY + **IMPLEMENTATION**

POLICY
Methodology implemented for monitoring and controlling the company's suppliers

IMPLEMENTATION
Practices adopted and that demonstrate the effectiveness of the company's policy (example: external audits)

THE FINAL SCORE OF EACH COMPANY IS FRAMED IN DESCRIPTIVE BANDS OF THE PERFORMANCE LEVEL OF THE POLICIES ADOPTED AGAINST DEFORESTATION – THE RADAR VERDE INDEX

SCORING CLASSES	COLOR SCALE	PERFORMANCE OF THE POLICY DEMONSTRATED BY THE COMPANY
>90		The score indicates that the effectiveness of the policy would be very high
70-89		The score indicates that the effectiveness of the policy would be high
50-69		The score indicates that the effectiveness of the policy would be intermediary
30-49		The score indicates that the effectiveness of the policy would be low
>0-29		The score indicates that the effectiveness of the policy would be very low

HOW IS THE CALCULATION FOR SLAUGHTERHOUSES DONE?

WEIGHS 20% — WEIGHS 80%

FINAL SCORE = ((A+B)*C*0.2) + (D*E*0.8)

POLICY + IMPLEMENTATION

The POLICY evaluation corresponds to the questionnaire and policy coverage

	QUESTIONS	SCORES
A	3.2	12
	3.3	– 1*
	3.4	3
	3.5	– 0.25*
	3.6	3
	3.7	3
	3.8	2
	3.9	3
	3.10	3
	3.11	2
	3.12	2
	3.13	2
	3.14	2
	3.15	2
	3.16	15
	3.17	10
	3.19	3
	3.20	10
	3.21	3
	3.22	2
B	5.1	8
	5.1.2	10
	TOTAL	**100**

** For each year of delay from 2008*

The IMPLEMENTATION evaluation is based on the external audit score presented by the company and the weight of the external audit coverage

- D — EXTERNAL AUDIT SCORE
- E — WEIGHT OF THE EXTERNAL AUDIT COVERAGE

The score is obtained for:

Direct + Indirect

SCORE 0.5 — SCORE 0.5

RADAR VERDE INDEX (FINAL SCORE)

C — POLICY COVERAGE

It is related to the percentage of units to which the company policy applies. For example: Company X applies the policy to only half of its slaughterhouse units, so the coverage score will be 0.5

HOW IS THE CALCULATION FOR RETAILERS DONE?

WEIGHS 20% | WEIGHS 80%

FINAL SCORE = ((A+B)*C*0.2) + (D*E*0.8)

POLICY + **IMPLEMENTATION**

The POLICY evaluation corresponds to the questionnaire and policy coverage

	QUESTIONS	SCORES
A	3.2	5
	3.2.1	– 0.5*
	3,3	1.5
	3.3.1	– 0.25*
	3.4	1.5
	3.5	1.5
	3.6	1.5
	3.7	1.5
	3.8	1.5
	3.9	1.5
	3.10	1.5
	3.11	1.5
	3.12	1.5
	3.13	1.5
	3.14	5
	3.15	5
	3.16	1.5
	3.17	4
	3.18	1.5
	3.19	1.5
	3.20	5
	3.20.1	5
	3.20.3	4
	3.23	1
	3.29	0.5
	3.30	0.5
	3.31	0.5
	3.32	0.5
	3.33	1
	3.34	1
	3.35	1.5
	3.36	9.5
	3.37	9.5
	3.38	1.5
	3.39	1.5
	3.40	9.5
	3.41	5
	3.42	1
	3.43	1.5
	3.44	0.5
	TOTAL	**100**
B	3.45	SIM
	3.45.1	100
	TOTAL	**100**

** For each year of delay from 2008*

The IMPLEMENTATION evaluation is based on the external audit score presented by the company and the weight of the external audit coverage

- D — EXTERNAL AUDIT SCORE
- E — WEIGHT OF THE EXTERNAL AUDIT COVERAGE

The score is obtained for:

Direct + Indirect

SCORE 0.5 | SCORE 0.5

RADAR VERDE INDEX (FINAL SCORE)

C — POLICY COVERAGE

It is related to the percentage of units to which the company policy applies. For example: Company X applies the policy to only half of its slaughterhouse units, so the coverage score will be 0.5

4

PARTICIPATING COMPANIES

RETAILERS

Establishments that sell beef directly to consumers.

For supermarkets to be able to guarantee that the beef they sell to consumers does not come from farms with illegal deforestation, from invaded conservation areas or from illegally occupied public lands, they must have policies for the responsible purchase of beef and require slaughterhouses (from whom they purchase beef) proof of compliance with these rules.

The result of the **RADAR VERDE** indicator will show to what extent supermarket policies are solid and capable of guaranteeing social and environmental monitoring of all connections in the beef production chain. This will be possible through an index that classifies the effectiveness of the policy and implementation of such companies' social and environmental programs on their supply chain.

To answer the questionnaire about the efficiency of their beef purchase policies, **RADAR VERDE** has invited 69 supermarkets, 50 of which correspond to the largest retailers in the country, according to the 2021 ranking of the Brazilian Association of Supermarkets (ABRAS) and the others correspond to local retailers within the states of the Brazilian Amazon.

CHECK OUT BELOW THE LIST OF RETAILERS

1. A Angeloni & Cia.
2. ACDA Importação e Exportação
3. AR Filho & Cia.
4. AS Aguiar & Cia.
5. AM/PM Comestíveis
6. Assaí Atacadista
7. Atakarejo Distribuidor de Alimentos e Bebidas

8 Big[3]
9 Carrefour
10 Casa Nossa
11 Cema Central Mineira Atacadista
12 Cencosud Brasil (Grupo)
13 Cia. Beal de Alimentos (Festval)
14 Comercial Zaffari
15 Comercial Zaragoza Importação e Exportação
16 Companhia Sulamericana de Distribuição
17 Companhia Zaffari Comércio e Indústria
18 COOP – Cooperativa de Consumo
19 Covabra Supermercado
20 D'avó Supermercados
21 Del Moro & Del Moro
22 DMA Distribuidora
23 Formosa Supermercados & Magazine
24 Frios Vilhena
25 Giassi e Cia.
26 Gmgb Holding E Participações (Supermercados Mambo)
27 GPA
28 Grupo DB
29 Hilário José Weiller (Ouro Verde)
30 Irmãos Boa
31 Irmãos Muffato & Cia.
32 Jad Zogheib & Cia. (Confiança Supermercados)
33 Juba Supermercados
34 Koch Hipermercado
35 L&G Alimentos do Brasil
36 Líder Comércio E Indústria
37 Luiz Tonin Atacadista e Supermercados
38 MA Silva e Silva
39 Mart Minas Distribuição
40 Mateus Supermercados
41 Multi Formato Distribuidora (Supermercado Super Nosso)
42 Mundialmix Comércio de Alimentos
43 Organização Verdemar
44 Pague Menos Comércio de Produtos Alimentícios
45 Quartetto Supermercados

(3) During 2022, BIG Group merged with Carrefour Group, and in this report both companies respond as one

46 RMC Comércio de Alimentos
47 Rachel Loiola & Cia.
48 Realmar Distribuidora (Extrabom)
49 São Cristóvão Investimentos e Participações (Big Box Supermercados)
50 Savegnago Supermercados
51 Sdb Comércio de Alimentos (Comper)
52 Silva e Barbosa Comércio de Alimentos
53 Sonda Supermercados Exportação e Importação
54 Supermercado A. Luzitana
55 Supermercado Bahamas
56 Supermercado Cidade
57 Supermercado Cometa
58 Supermercado Guará
59 Supermercado Nordestão
60 Supermercado Paulista
61 Supermercado Queiróz
62 Supermercado Superpão
63 Supermercados BH Comércio de Alimentos
64 Supermercados Cavicchiolli (Supermercado São Vicente)
65 Supermercados Irmãos Lopes
66 Supermercados Jaú Serve
67 Torre e Cia. Supermercados
68 Unidasul Distribuidora Alimentícia
69 VMJ Comércio de Produtos Alimentícios (Mega Supermercado)

SLAUGHTERHOUSES

Companies that perform beef cattle slaughter and processing. To guarantee that the beef that comes from their – direct and indirect – suppliers has not been through farms that promote deforestation in the Brazilian Amazon, it is up to them to develop and execute responsible purchase policies.

RADAR VERDE has identified 146 active slaughterhouses with the Federal Inspection Service (SIF) or State Inspection Service (SIE) located within the Brazilian Amazon. Those slaughterhouses belong to 113 companies listed below (each company can have one or more slaughterhouses).

CHECK OUT BELOW THE LIST OF SLAUGHTERHOUSES

1 163 Beef Indústria e Comércio de Carnes
2 Abatedouro de Bovinos Sampaio
3 Abatedouro Independência
4 Abatedouro Monte Cristo
5 Abatedouro Ro
6 Abatedouro São Jorge
7 Agrafoods
8 Agropam – Agricultura E Pecuária Amazonas
9 Alexandrino
10 Alvorada
11 Amazonboi
12 Amazônia Alimentos
13 Arrudão
14 Ativo Alimentos
15 Beef D'ouro
16 Boi Bom
17 Boi Brasil
18 Boi Verde
19 Bovinorte
20 Carnes Boi Branco
21 Casfrisa
22 Comcarne Comercial de Carne (Fribal)
23 Cooperativa dos Produtores de Carne e Derivados de Gurupi
24 CRO Ribeiro
25 Fribev – Frigorífico Bela Vista
26 Frical Frigorífico
27 Frican
28 Frig
29 Frigo 10
30 Frigoboi
31 Frigobom
32 Frigocal
33 Frigodias
34 Frigoestrela
35 Frigol
36 Frigoli Alimentos
37 Frigolider
38 Frigomil Frigorífico Mil

39 Frigonelore
40 Frigonort
41 Frigoporto
42 Frigordo Indústria Comércio Importação e Exportação
43 Frigorífico 2r
44 Frigorífico 3m
45 Frigorífico Agro Açailândia
46 Frigorífico Alemão
47 Frigorífico Altamira
48 Frigorífico Araticum
49 Frigorífico Areia Branca
50 Frigorífico Castanheira
51 Frigorífico Dona Raimunda
52 Frigorífico Fortefrigo
53 Frigorífico Frigoraça
54 Frigorífico Jatobá
55 Frigorífico Krause
56 Frigorífico Monte Verde
57 Frigorífico Norte Carnes
58 Frigorífico Nosso
59 Frigorífico Pantanal
60 Frigorífico Paraiso
61 Frigorífico Redentor
62 Frigorífico Rio Maria
63 Frigorífico Roma
64 Frigorífico Rondônia
65 Frigorífico Rondonópolis
66 Frigorífico Rs
67 Frigorífico São José
68 Frigorífico Savana
69 Frigorífico Valencio
70 Frigorífico Ypê
71 Frigosena
72 Frigotefé
73 Frigovale do Guapore
74 Frigovan
75 Frigoverde
76 Frinorte Tomé-Açu
77 Frisacre Frigorífico Santo Afonso do Acre
78 Golden Imex
79 Indústria Frigorífica Boa Carne

80 Intercontinental Foods – Comércio de Alimentos
81 Irmãos Gonçalves Comércio e Indústria
82 JBS
83 JP
84 JV Pessoa (Rio Branco)
85 LKJ – Frigorífico
86 Mafrico
87 Mafrimar
88 Marfrig Global Foods
89 Masterboi
90 Matadouro Braga Empreendimentos (Frimap)
91 Matadouro E Frigorífico Aliança
92 Matadouro Frigorífico Amazônia Empreendimentos (Friaap)
93 Matadouro Juba
94 Mercurio Alimentos
95 Mfb Matadouro Frigorífico Bezerra
96 Minerva
97 Naturafrig Alimentos
98 Nova Carne
99 NR Comércio de Frios
100 Nutrifrigo Alimentos
101 Organizações GC
102 Pantaneira Indústria E Comércio de Carnes e Derivados
103 Plena Alimentos
104 R Batista
105 RC Moreira Costa (Frical)
106 RE Ribeiro Soares
107 Refúgio
108 Rio Beef Frigorífico
109 SF Indústria e Comércio de Carnes
110 Socipe
111 Total
112 Vale do Tapajós (Frivata)
113 Vale Grande Indústria e Comércio de Alimentos

5

INVITATION TO COMPANIES

RADAR VERDE contacted all the companies that enabled their active phone numbers or emails to invite them to participate in this survey. In all, nine email attempts were made through Dinamize platform between April 14th and July 18th, with releases, deadlines and assisting links regarding the survey. Additionally, **RADAR VERDE's** team called at least three times each one of the companies with their phone numbers on the contact list.

RADAR VERDE's team also had the help of partner organizations, which speak directly with the sectors of interest to announce, disclose and reinforce the invitation to mapped companies. In addition, sustainability professionals of the mapped companies were contacted via LinkedIn to reach as many companies as possible and make them aware of the survey.

69 RETAILERS	TOTAL NUMBER OF COMPANIES THAT...	113 SLAUGHTERHOUSES
4	...provided only contact info by email	**1**
0	...provided only contact info by telephone	**20**
65	...provided contact info by email and telephone	**69**
0	...provided no contact at all	**23**

Radar Verde did not manage to talk to all the companies that enabled their contact info because many of them were invalid

6

RESULTS

RADAR VERDE's results are presented by sectors: slaughterhouses and retailers. Each sector has two lists, on the first list, all slaughterhouses and supermarkets mapped by the survey are listed in alphabetical order and identified according to their status in joining the project, which can be:

(1) Responded to the survey
(2) Did not respond to the survey
(3) Responded, but did not authorize the disclosure of results

The difference between statuses is done through color identification (see table below with illustrative data):

- **RESPONDED TO THE SURVEY**
- **DID NOT RESPOND TO THE SURVEY**
- **RESPONDED, BUT DID NOT AUTHORIZE THE DISCLOSURE OF RESULTS**

MODEL. LIST OF RETAILERS INVITED BY RADAR VERDE

- Usvolupture suntem quasit laut quiberum eosam alitatum
- Derspitatqui imus mitetus aligenda soluptatem
- Onsequos prempor ecteceatur re videndae laceaquo
- Quo et eum ullita volendesto
- Deliquia abo. Imagni dolum quid moluptas
- Acepro torum exces dolut maio et ratibusanto
- Lacesti ncienim ilis elignit et hillesto
- Vero quam rest sum nobitatur molluptum laboriost
- Autamus nonnus
- Sediae laccu que voloren ditiass iminum
- Utaut volupid que earum sequiatem comnihil
- Rehendae seque quam in nemporp
- voluptaturcum rem hil molorro videnis molesequis
- Magnatendi quae volo idiaepr emquiaexerest
- Modiae inumend erferi ium sus et labores dolupta tumqui
- Magnat resedi ut dolorerferum ne derem illore

The second list presents the index assigned to each of the companies, in alphabetical order, that responded to the survey according to the level of control and transparency of their supply chain. The index corresponds to the color classification shown in the methodology (see table below with illustrative data).

MODEL. INDEX OF THE COMPANIES THAT RESPONDED TO THE SURVEY

SCORING CLASSES	COLOR SCALE	PERFOMANCE OF THE POLICY DEMONSTRADED BY THE COMPANY
>90		The score indicates that the effectiveness of the policy would be very high
70-89		The score indicates that the effectiveness of the policy would be high
50-69		The score indicates that the effectiveness of the policy would be intermediary
30-49		The score indicates that the effectiveness of the policy would be low
>0-29		The score indicates that the effectiveness of the policy would be very low

SLAUGHTERHOUSE ○ ● RETAILER

COMPANY	GENERAL SCORE	DIRECT	INDIRECT
○ Namdolupti quia volo bero			
● Usvolupture suntem quasit laut			
● Derspitatqui imus mitetus			
● Onsequos premporuo eteum			
○ Vero quam rest sum nobitatur			

RADAR VERDE

RESULTS

LEGEND

- RESPONDED TO THE SURVEY
- DID NOT RESPOND TO THE SURVEY
- RESPONDED, BUT DID NOT AUTHORIZE THE DISCLOSURE OF RESULTS

TABLE 4. LIST OF RETAILERS INVITED BY RADAR VERDE

None of the companies participating in the RADAR VERDE survey in 2022 authorized the disclosure of their respective indexes

- A Angeloni & Cia.
- ACDA Importação e Exportação
- AR Filho & Cia.
- AS Aguiar e Cia.
- AM/PM Comestíveis
- **Assaí Atacadista**
- Atakarejo Distribuidor de Alimentos e Bebidas
- **Carrefour**
- Casa Nossa
- Cema Central Mineira Atacadista
- Cencosud Brasil (Grupo)
- Cia. Beal de Alimentos (Festval)
- Comercial Zaffari
- Comercial Zaragoza Importação e Exportação
- Companhia Sulamericana de Distribuição
- Companhia Zaffari Comércio E Indústria
- COOP – Cooperativa De Consumo
- Covabra Supermercado
- D'avó Supermercados
- Del Moro & Del Moro
- DMA Distribuidora
- Formosa Supermercados & Magazine
- Frios Vilhena
- Giassi e Cia.
- GMGB Holding e Participações (Supermercados Mambo)
- **GPA**
- Grupo DB

- Hilário José Weiller (Ouro Verde)
- Irmãos Boa
- Irmãos Muffato & Cia.
- Jad Zogheib & Cia. (Confiança Supermercados)
- Juba Supermercados
- Koch Hipermercado
- L&G Alimentos do Brasil
- Líder Comércio e Indústria
- Luiz Tonin Atacadista e Supermercados
- MA Silva e Silva
- Mart Minas Distribuição
- Mateus Supermercados
- Multi Formato Distribuidora (Supermercado Super Nosso)
- Mundialmix Comércio de Alimentos
- Organização Verdemar
- Pague Menos Comércio de Produtos Alimentícios
- Quartetto Supermercados
- RMC Comércio De Alimentos
- Rachel Loiola & Cia.
- Realmar Distribuidora (Extrabom)
- São Cristóvão Investimentos e Participações (Big Box Supermercados)
- Savegnago Supermercados
- SDB Comércio de Alimentos (Comper)
- Silva e Barbosa Comércio de Alimentos
- Sonda Supermercados Exportação e Importação
- Supermercado A. Luzitana
- Supermercado Bahamas
- Supermercado Cidade
- Supermercado Cometa
- Supermercado Guará
- Supermercado Nordestão
- Supermercado Paulista
- Supermercado Queiróz
- Supermercado Superpão
- Supermercados BH Comércio de Alimentos
- Supermercados Cavicchiolli (Supermercado São Vicente)
- Supermercados Irmãos Lopes
- Supermercados Jaú Serve
- Torre e Cia. Supermercados
- Unidasul Distribuidora Alimentícia
- VMJ Comércio de Produtos Alimentícios (Mega Supermercado)

TABLE 5. LIST OF SLAUGHTERHOUSES INVITED BY RADAR VERDE

None of the companies participating in the RADAR VERDE survey in 2022 authorized the disclosure of their respective indexes

- 163 Beef Indústria e Comércio de Carnes
- Abatedouro de Bovinos Sampaio
- Abatedouro Independência
- Abatedouro Monte Cristo
- Abatedouro Ro
- Abatedouro São Jorge
- **Agrafoods**
- Agropam – Agricultura E Pecuária Amazonas
- Alexandrino
- Alvorada
- Amazonboi
- Amazônia Alimentos
- Arrudão
- Ativo Alimentos
- Beef D'ouro
- Boi Bom
- Boi Brasil
- Boi Verde
- Bovinorte
- Carnes Boi Branco
- Casfrisa
- Comcarne Comercial de Carne (Fribal)
- Cooperativa dos Produtores de Carne e Derivados de Gurupi
- CRO Ribeiro
- Fribev – Frigorífico Bela Vista
- Frical Frigorífico
- Frican
- Frig
- Frigo 10
- Frigoboi
- Frigobom
- Frigocal
- Frigodias
- Frigoestrela

- Frigol
- Frigoli Alimentos
- Frigolider
- Frigomil Frigorífico Mil
- Frigonelore
- Frigonort
- Frigoporto
- Frigordo Indústria Comércio Importação e Exportação
- Frigorífico 2r
- Frigorífico 3m
- Frigorífico Agro Açailândia
- Frigorífico Alemão
- Frigorífico Altamira
- Frigorífico Araticum
- Frigorífico Areia Branca
- Frigorífico Castanheira
- Frigorífico Dona Raimunda
- Frigorífico Fortefrigo
- Frigorífico Frigoraça
- Frigorífico Jatobá
- Frigorífico Krause
- Frigorífico Monte Verde
- Frigorífico Norte Carnes
- Frigorífico Nosso
- Frigorífico Pantanal
- Frigorífico Paraiso
- Frigorífico Redentor
- Frigorífico Rio Maria
- Frigorífico Roma
- Frigorífico Rondônia
- Frigorífico Rondonópolis
- Frigorífico Rs
- Frigorífico São José
- Frigorífico Savana
- Frigorífico Valencio
- Frigorífico Ypê
- Frigosena
- Frigotefé
- Frigovale do Guapore
- Frigovan
- Frigoverde

- Frinorte Tomé-Açu
- Frisacre Frigorífico Santo Afonso do Acre
- Golden Imex
- Indústria Frigorífica Boa Carne
- Intercontinental Foods – Comércio de Alimentos
- Irmãos Gonçalves Comércio e Indústria
- **JBS**
- JP
- JV Pessoa (Rio Branco)
- LKJ – Frigorífico
- Mafrico
- Mafrimar
- **Marfrig Global Foods**
- **Masterboi**
- Matadouro Braga Empreendimentos (Frimap)
- Matadouro E Frigorífico Aliança
- Matadouro Frigorífico Amazônia Empreendimentos (Friaap)
- Matadouro Juba
- Mercurio Alimentos
- Mfb Matadouro Frigorífico Bezerra
- **Minerva**
- Naturafrig Alimentos
- Nova Carne
- NR Comércio de Frios
- Nutrifrigo Alimentos
- Organizações GC
- Pantaneira Indústria E Comércio de Carnes e Derivados
- Plena Alimentos
- R Batista
- RC Moreira Costa (Frical)
- RE Ribeiro Soares
- Refúgio
- Rio Beef Frigorífico
- Sf Indústria e Comércio de Carnes
- Socipe
- Total
- Vale do Tapajós (Frivata)
- Vale Grande Indústria e Comércio de Alimentos

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