

F0. Introduction

F0.1

(F0.1) Give a general description of and introduction to your organization.

Minerva Foods is the leading beef exporter in South America and has adjacent operations in animal protein processing and sales, and live cattle exports. A Brazilian-based, publicly traded corporation, Minerva Foods has a global presence, exporting to more than 100 countries on five continents. At the end of 2021, the second year of the new coronavirus pandemic, Minerva's net revenue was BRL 26.9 billion.

The Company sources, processes and sells animal protein through an integrated, geographically diversified and flexible business platform comprising 25 beef slaughter plants in Brazil, Argentina, Colombia, Paraguay and Uruguay. In 2021, Minerva Foods expanded into Oceania with the acquisition of two sheep slaughter plants in Australia.

Completing its assets are 14 distribution centers in South America (9 in Brazil, 2 in Chile, 1 in Argentina, 1 in Colombia and 1 in Paraguay), 16 sales offices in key markets (Algeria, Australia, Chile, China, Dubai, Egypt, United States, Hong Kong, England, Italy, Lebanon, New Zealand, Russia, Singapore and Taiwan), one meat processing plant (Minerva Fine Foods) in Brazil and two operating under the Swift brand in Argentina.

Starting a new chapter in its 30-year history, in 2021 the Company refreshed its brand to reflect the evolution that has made Minerva Foods a modern, disruptive and innovative business that is committed to creating a sustainable food future for our planet. Each site now displays the renovated Minerva Foods brand. The Company has a 23% market share in South America with a workforce of 21,215 employees and in 2021 produced and processed 1,001 million metric tons of beef across all regions

As part of its business model, the Company supports the development of more than 21,000 cattle suppliers to meet the requirements of mature markets on issues such as traceability and environmental, labor and land-use compliance.

Minerva is deeply committed to sustainability in such a way that this value is embedded in its institutional culture. To ensure the best prioritization of initiatives and in the development of partnerships, the Minerva Foods ESG (environmental, social and corporate governance) agenda was organized into three pillars: Dedication to the Planet, Prosperity of Our People, and Product Quality and Respect for Life. In April 2021, Minerva Foods unveiled a number of goals and targets relating to climate change, a focus area in the Company's sustainability strategy pillar 'Dedication to the Planet'.

These goals cover the Company's own operations and the broader value chain and aim to achieve net zero emissions by 2035—15 years earlier than called for in the Paris Agreement—among other medium-term ambitions.

More information about Minerva is available in the 2021 Sustainability Report, on our institutional website and on the investor relations website.

F0.2

(F0.2) State the start and end date of the year for which you are reporting data.

	Start Date	End Date
Reporting year	January 1 2021	December 31 2021

F0.3

(F0.3) Select the currency used for all financial information disclosed throughout your response.

BRL

F0.4

(F0.4) Select the forest risk commodity(ies) that you are, or are not, disclosing on (including any that are sources for your processed ingredients or manufactured goods); and for each select the stages of the supply chain that best represents your organization's area of operation.

	Commodity disclosure	Stage of the value chain	Explanation if not disclosing
Timber products	Disclosing	Processing	<Not Applicable>
Palm oil	This commodity is not produced, sourced or used by our organization	<Not Applicable>	<Not Applicable>
Cattle products	Disclosing	Processing Trading Manufacturing	<Not Applicable>
Soy	This commodity is not produced, sourced or used by our organization	<Not Applicable>	<Not Applicable>
Other - Rubber	This commodity is not produced, sourced or used by our organization	<Not Applicable>	<Not Applicable>
Other - Cocoa	This commodity is not produced, sourced or used by our organization	<Not Applicable>	<Not Applicable>
Other - Coffee	This commodity is not produced, sourced or used by our organization	<Not Applicable>	<Not Applicable>

F0.5

(F0.5) Are there any parts of your direct operations or supply chain that are not included in your disclosure?

Yes

F0.5a

(F0.5a) Identify the parts of your direct operations or supply chain that are not included in your disclosure.

Value chain stage	Exclusion	Description of exclusion	Potential for forests-related risk	Please explain
Supply chain	Specific supplier(s)	The greatest difficulty in advancing this issue is related to the lack of access or even lack of official data to verify other levels of the value chain. In addition, monitoring indirect supplier farms requires not only investment in tools, but also the engagement of the entire value chain to ensure complete traceability of cattle. Despite the challenges, common to the entire chain, this is yet another pioneering initiative by Minerva Foods together with various actors in the meat chain in Brazil, to seek greater transparency and security in the cattle origination process.	Potential for forests-related risk, evaluated, but not disclosing to CDP	Among the goals of the Commitment to Sustainability established by Minerva Foods in 2021 is zero illegal deforestation throughout the South American production chain by 2030 through the expansion of geographic monitoring of direct supplier farms and the development of a monitoring program for indirect supply farms to all countries in which the Company operates. This program began last year with the development and implementation of an application in Brazil in partnership with the Niceplanet Geotechnology Company. . In October 2021, the SMGeo Prospec application was launched, which transfers to the rancher the technology used in Minerva Foods' day-to-day activities so that he can consult and analyze, using the same socio-environmental criteria for the purchase of cattle adopted by the Company, the situation of his respective suppliers before making any purchase of animals for breeding, breeding and/or fattening. As part of the initial development of the monitoring program for indirect supplier farms in 2021, the Visipec tool was integrated with Minerva Foods' internal monitoring system for properties located in the Amazon, the goal was also met in advance. This tool provided Minerva Foods with pioneering verification of its indirect supply farms through a partnership with the National Wildlife Federation and Wisconsin-Madison University, with Minerva Foods being the first company to test this new complementary traceability tool that is being used for mapping supplier risks. Visipec assists in the development and guidance of viable action plans to address the risks of deforestation on Minerva Foods' indirect supply farms. The preliminary results of the Visipec tool were very positive, attesting to approximately 98.4% of compliance with the criteria defined as good practices by the Working Group of Indirect Suppliers (GTFI). For integration, a screen was developed where the user performs consultations with the competent bodies and interrelationship between the information from Animal Transit Guides (GTA - official document for animal transport in Brazil, contains information on the origin and destination of animals, sanitary conditions , purpose of transport, etc.) and CAR (Rural Environmental Registry).

F0.6

(F0.6) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.?)

Indicate whether you are able to provide a unique identifier for your organization	Provide your unique identifier
Yes, an ISIN code	BRBEEFACNOR6
Yes, a Ticker Symbol	BEEF3 – Brazilian Stock Exchange (B3)

F1. Current state

F1.1

(F1.1) How does your organization produce, use or sell your disclosed commodity(ies)?

Timber products

Activity

Using as input into manufacturing process for power generation

Form of commodity

Hardwood logs
Softwood logs

Source

Smallholders
Single contracted producer
Multiple contracted producers
Trader/broker/commodity market

Country/Area of origin

Brazil
Colombia
Paraguay
Uruguay

% of procurement spend

1-5%

Comment

Minerva Foods' main activity is the production of fresh beef and its derivatives. The Company distributes chilled and frozen fresh meats in the domestic and foreign markets, products processed from cooked, roasted and grilled meats. So that they can be produced in compliance with sanitary standards, part of the process needs hot water to maintain the sterilization of equipment and utensils, cooking of by-products, etc. Without the generation of steam there is no way to guarantee the sterilization and non-contamination of the products. In its production units, the main fuel for steam production is logs. Exotic species such as eucalyptus are used, as well as native species according to the region. The entire process of acquiring native firewood is documented through DOF - Document of forest origin, and suppliers are duly regularized with IBAMA, for the case of plants in Brazil. And, in accordance with the Laws Forestal Law 422/73 of Paraguay and Law de Desarrollo Forestal N° 15.939 of Uruguay.

Cattle products

Activity

Slaughtering

Form of commodity

Cattle
Tallow
Beef
Hides/leather
Tallow biodiesel

Source

Smallholders
Single contracted producer
Multiple contracted producers
Trader/broker/commodity market

Country/Area of origin

Argentina
Brazil
Colombia
Paraguay
Uruguay

% of procurement spend

81-90%

Comment

Minerva Foods' main activity is the production of fresh beef and meat products. The Company distributes chilled and frozen fresh meat in the domestic and foreign markets, processed products based on cooked, roasted and grilled meats. In addition, it operates in the segment of processing and distribution of bovine leather in wet blue and semi-finished states, natural wraps for the manufacture of sausages and in the production of biodiesel from beef tallow, a by-product of its main process. In addition, Minerva Foods operates in the live cattle export niche, following the standards established by the most stringent international animal welfare standards and being a signatory to several commitments for the development of sustainable livestock, with the adoption of strict socio-environmental criteria for cattle acquisition.

F1.2

(F1.2) Indicate the percentage of your organization's revenue that was dependent on your disclosed forest risk commodity(ies) in the reporting year.

	% of revenue dependent on commodity	Comment
Timber products	<1%	All firewood consumed to generate steam for heating water in cleaning rooms, sterilizers, equipment and utensils in general. Sterilization is important to avoid any type of contamination of the product produced.
Palm oil	<Not Applicable>	<Not Applicable>
Cattle products	100%	Minerva Foods' main activity is the production of fresh beef and meat products. In addition, it operates in the segment of processing and distribution of bovine leather in the wet blue and semi-finished states, natural casings for the manufacture of sausages and in the production of biodiesel from bovine tallow, a by-product of the main process. The percentage disclosed is based on the revenue generated by these products.
Soy	<Not Applicable>	<Not Applicable>
Other - Rubber	<Not Applicable>	<Not Applicable>
Other - Cocoa	<Not Applicable>	<Not Applicable>
Other - Coffee	<Not Applicable>	<Not Applicable>

F1.5

(F1.5) Does your organization collect production and/or consumption data for your disclosed commodity(ies)?

	Data availability/Disclosure
Timber products	Consumption data available, disclosing
Palm oil	<Not Applicable>
Cattle products	Consumption data available, disclosing
Soy	<Not Applicable>
Other - Rubber	<Not Applicable>
Other - Cocoa	<Not Applicable>
Other - Coffee	<Not Applicable>

F1.5a

(F1.5a) Disclose your production and/or consumption figure, and the percentage of commodity volumes verified as deforestation- and/or conversion-free.

Forest risk commodity

Cattle products

Data type

Consumption data

Commodity production/ consumption volume

3572200

Metric for commodity production/ consumption volume

Other, please specify (Total units of cattle slaughtered.)

Data coverage

Full commodity production/consumption

Have any of your reported commodity volumes been verified as deforestation- and/or conversion-free?

Yes

% of reported volume verified as deforestation- and/or conversion-free

64

Please explain

In Brazil, Minerva Foods has 100% of the direct supplier farms monitored through the geospatial monitoring platform with georeferenced maps, guaranteeing zero illegal deforestation throughout Brazilian territory. In Paraguay, in 2021, the company reached the goal of 100% geographic monitoring of all direct supplier farms, ensuring zero illegal deforestation in this country as well. The goal is to achieve the same results in Colombia by 2023, Uruguay by 2025 and expansion to other South American countries by 2030.

Forest risk commodity

Timber products

Data type

Consumption data

Commodity production/ consumption volume

271669.27

Metric for commodity production/ consumption volume

Cubic meters

Data coverage

Full commodity production/consumption

Have any of your reported commodity volumes been verified as deforestation- and/or conversion-free?

Yes

% of reported volume verified as deforestation- and/or conversion-free

100

Please explain

It is considered that 100% of the wood used by the company is free from deforestation due to traceability (DOF or IBAMA certificate) in Brazil. The supplement purchasing departments of LATAM units also verify that the commodity does not come from deforestation areas in accordance with occurring legislation in each country.

F1.5b

(F1.5b) For your disclosed commodity(ies), indicate the percentage of the production/consumption volume sourced by national and/or sub-national jurisdiction of origin.

Forest risk commodity

Cattle products

Country/Area of origin

Brazil

State or equivalent jurisdiction

Specify state/equivalent jurisdiction (Sao Paulo)

% of total production/consumption volume

8.1

Please explain

The calculation is based on the total number of cattle slaughtered in Sao Paulo in 2021 divided by the total number of cattle slaughtered across the Company (all countries), then multiplied by 100 for percentage.

Forest risk commodity

Cattle products

Country/Area of origin

Brazil

State or equivalent jurisdiction

Specify state/equivalent jurisdiction (Goiias)

% of total production/consumption volume

11.3

Please explain

The calculation is based on the total number of cattle slaughtered in Goias in 2021 divided by the total number of cattle slaughtered across the Company (all countries), then multiplied by 100 for percentage.

Forest risk commodity

Cattle products

Country/Area of origin

Brazil

State or equivalent jurisdiction

Specify state/equivalent jurisdiction (Tocantins)

% of total production/consumption volume

3.8

Please explain

The calculation is based on the total number of cattle slaughtered in Tocantins in 2021 divided by the total number of cattle slaughtered across the Company (all countries), then multiplied by 100 for percentage.

Forest risk commodity

Cattle products

Country/Area of origin

Brazil

State or equivalent jurisdiction

Specify state/equivalent jurisdiction (Rondonia)

% of total production/consumption volume

6.7

Please explain

The calculation is based on the total number of cattle slaughtered in Rondonia in 2021 divided by the total number of cattle slaughtered across the Company (all countries), then multiplied by 100 for percentage.

Forest risk commodity

Cattle products

Country/Area of origin

Brazil

State or equivalent jurisdiction

Specify state/equivalent jurisdiction (Mato Grosso)

% of total production/consumption volume

4.6

Please explain

The calculation is based on the total number of cattle slaughtered in Mato Grosso in 2021 divided by the total number of cattle slaughtered across the Company (all countries), then multiplied by 100 for percentage.

Forest risk commodity

Cattle products

Country/Area of origin

Brazil

State or equivalent jurisdiction

Specify state/equivalent jurisdiction (Minas Gerais)

% of total production/consumption volume

3.7

Please explain

The calculation is based on the total number of cattle slaughtered in Minas Gerais in 2021 divided by the total number of cattle slaughtered across the Company (all countries), then multiplied by 100 for percentage.

Forest risk commodity

Cattle products

Country/Area of origin

Argentina

State or equivalent jurisdiction

Specify state/equivalent jurisdiction (Santa Fe Province)

% of total production/consumption volume

11

Please explain

The calculation is based on the total number of cattle slaughtered in Santa Fe Province, in Argentina, in 2021 divided by the total number of cattle slaughtered across the Company (all countries), then multiplied by 100 for percentage.

Forest risk commodity

Cattle products

Country/Area of origin

Colombia

State or equivalent jurisdiction

Specify state/equivalent jurisdiction (Cordoba Department)

% of total production/consumption volume

5

Please explain

The calculation is based on the total number of cattle slaughtered in Cordoba Department, in Colombia, in 2021 divided by the total number of cattle slaughtered across the Company (all countries), then multiplied by 100 for percentage.

Forest risk commodity

Cattle products

Country/Area of origin

Colombia

State or equivalent jurisdiction

Specify state/equivalent jurisdiction (Santander Department)

% of total production/consumption volume

4

Please explain

The calculation is based on the total number of cattle slaughtered in Santander Department, in Colombia in 2021 divided by the total number of cattle slaughtered across the Company (all countries), then multiplied by 100 for percentage.

Forest risk commodity

Cattle products

Country/Area of origin

Paraguay

State or equivalent jurisdiction

Specify state/equivalent jurisdiction (Asuncion Capital)

% of total production/consumption volume

9

Please explain

The calculation is based on the total number of cattle slaughtered in Asuncion Capital, in Paraguay, in 2021 divided by the total number of cattle slaughtered across the Company (all countries), then multiplied by 100 for percentage.

Forest risk commodity

Cattle products

Country/Area of origin

Paraguay

State or equivalent jurisdiction

Specify state/equivalent jurisdiction (San Antonio, Central Department)

% of total production/consumption volume

5

Please explain

The calculation is based on the total number of cattle slaughtered in San Antonio, Central Department, Paraguay, in 2021 divided by the total number of cattle slaughtered across the Company (all countries), then multiplied by 100 for percentage.

Forest risk commodity

Cattle products

Country/Area of origin

Paraguay

State or equivalent jurisdiction

Specify state/equivalent jurisdiction (Belen - Concepcion Department)

% of total production/consumption volume

11

Please explain

The calculation is based on the total number of cattle slaughtered in Belen, Concepcion Department, Paraguay, in 2021 divided by the total number of cattle slaughtered across the Company (all countries), then multiplied by 100 for percentage.

Forest risk commodity

Cattle products

Country/Area of origin

Any other countries/areas

State or equivalent jurisdiction

<Not Applicable>

% of total production/consumption volume

Please explain

The calculation is based on the total number of cattle slaughtered in Cerro Largo Department, Uruguay, in 2021 divided by the total number of cattle slaughtered across the Company (all countries), then multiplied by 100 for percentage.

Forest risk commodity

Cattle products

Country/Area of origin

Any other countries/areas

State or equivalent jurisdiction

<Not Applicable>

% of total production/consumption volume

10

Please explain

The calculation is based on the total number of cattle slaughtered in Canelones Department, in Uruguay, in 2021 divided by the total number of cattle slaughtered across the Company (all countries), then multiplied by 100 for percentage.

Forest risk commodity

Timber products

Country/Area of origin

Brazil

State or equivalent jurisdiction

Specify state/equivalent jurisdiction (Tocantins)

% of total production/consumption volume

10

Please explain

Wood consumption from the Araguaina plant divided by the amount of wood consumed in the company, then multiplied by 100 as a percentage.

Forest risk commodity

Timber products

Country/Area of origin

Brazil

State or equivalent jurisdiction

Specify state/equivalent jurisdiction (Rondonia)

% of total production/consumption volume

8

Please explain

Wood consumption from the Rolim de Moura plant divided by the amount of wood consumed in the company, then multiplied by 100 as a percentage.

Forest risk commodity

Timber products

Country/Area of origin

Brazil

State or equivalent jurisdiction

Specify state/equivalent jurisdiction (Sao Paulo)

% of total production/consumption volume

18

Please explain

Sum of wood consumption from Barretos and Jose Bonifacio plants divided by the amount of wood consumed in the company, then multiplied by 100 as a percentage.

Forest risk commodity

Timber products

Country/Area of origin

Brazil

State or equivalent jurisdiction

Specify state/equivalent jurisdiction (Minas Gerais)

% of total production/consumption volume

6

Please explain

Wood consumption from the Janauba plant divided by the amount of wood consumed in the company, then multiplied by 100 as a percentage.

Forest risk commodity

Timber products

Country/Area of origin

Brazil

State or equivalent jurisdiction

Specify state/equivalent jurisdiction (Mato Grosso)

% of total production/consumption volume

10

Please explain

Sum of wood consumption from Mirassol DOeste and Paranatinga plants divided by the amount of wood consumed in the company, then multiplied by 100 as a percentage.

Forest risk commodity

Timber products

Country/Area of origin

Brazil

State or equivalent jurisdiction

Specify state/equivalent jurisdiction (Goias)

% of total production/consumption volume

23

Please explain

Wood consumption from the Palmeiras de Goias plant divided by the amount of wood consumed in the company, then multiplied by 100 as a percentage.

Forest risk commodity

Timber products

Country/Area of origin

Paraguay

State or equivalent jurisdiction

Specify state/equivalent jurisdiction (Asuncion Capital)

% of total production/consumption volume

12

Please explain

Sum of wood consumption from plants "2", "8" and "13" in Paraguay divided by the amount of wood consumed in the company, then multiplied by 100 as a percentage.

Forest risk commodity

Timber products

Country/Area of origin

Paraguay

State or equivalent jurisdiction

Specify state/equivalent jurisdiction (San Antonio Central Department)

% of total production/consumption volume

5.9

Please explain

Wood consumption from the San Antonio Central Department plants divided by the amount of wood consumed in the company, then multiplied by 100 as a percentage.

Forest risk commodity

Timber products

Country/Area of origin

Paraguay

State or equivalent jurisdiction

Specify state/equivalent jurisdiction (Concepcion Department)

% of total production/consumption volume

6.9

Please explain

Sum of wood consumption from the Plant "23" in Belen, Paraguay, divided by the amount of wood consumed in the company, then multiplied by 100 as a percentage.

Forest risk commodity

Timber products

Country/Area of origin

Any other countries/areas

State or equivalent jurisdiction

<Not Applicable>

% of total production/consumption volume

0.1

Please explain

Sum of wood consumption from the plants Carrasco and Canelones, in Canelones Department, Uruguay, divided by the amount of wood consumed by the company, then multiplied by 100 as a percentage.

Forest risk commodity

Timber products

Country/Area of origin

Any other countries/areas

State or equivalent jurisdiction

<Not Applicable>

% of total production/consumption volume

0.02

Please explain

Wood consumption from the Melo plant, in Cerro Largo Department, Uruguay, divided by the amount of wood consumed by the company, then multiplied by 100 as a percentage.

F1.6

(F1.6) Has your organization experienced any detrimental forests-related impacts?

No

F1.7

(F1.7) Indicate whether you have assessed the deforestation or conversion footprint for your disclosed commodities over the past 5 years, or since a specified cutoff date, and provide details.

Forest risk commodity

Timber products

Have you monitored or estimated your deforestation/conversion footprint?

Yes, we monitor deforestation/conversion footprint in our supply chain

Coverage

Full consumption volume

Reporting deforestation/conversion since a specified cutoff date or during the last five years?

During the last 5 years

Known or estimated deforestation/ conversion footprint (hectares)

0

Describe methods and data sources used to monitor or estimate deforestation/ conversion footprint

It is considered that 100% of the wood used by the company is free from deforestation due to traceability (DOF or IBAMA certificate) in Brazil. The supplement purchasing departments of LATAM units also verify that the commodity does not come from deforestation areas in accordance with the legislation in force in each country.

Forest risk commodity

Cattle products

Have you monitored or estimated your deforestation/conversion footprint?

No, but we plan to monitor or estimate our deforestation/conversion footprint in the next two years

Coverage

<Not Applicable>

Reporting deforestation/conversion since a specified cutoff date or during the last five years?

<Not Applicable>

Known or estimated deforestation/ conversion footprint (hectares)

<Not Applicable>

Describe methods and data sources used to monitor or estimate deforestation/ conversion footprint

<Not Applicable>

F2. Procedures

F2.1

(F2.1) Does your organization undertake a forests-related risk assessment?

Yes, forests-related risks are assessed

F2.1a

(F2.1a) Select the options that best describe your procedures for identifying and assessing forests-related risks.

Timber products**Value chain stage**

Direct operations
Supply chain
Other parts of the value chain

Coverage

Full

Risk assessment procedure

Assessed as part of an established enterprise risk management framework

Frequency of assessment

More than once a year

How far into the future are risks considered?

> 6 years

Tools and methods used

Internal company methods
National specific tools and databases

Issues considered

Availability of forest risk commodities
Quality of forests risk commodities
Impact of activity on the status of ecosystems and habitats
Regulation
Climate change
Tariffs or price increases
Loss of markets
Brand damage related to forests risk commodities

Stakeholders considered

Customers
Employees
Investors
Local communities
NGOs
Other forest risk commodity users/producers at a local level
Regulators
Suppliers

Please explain

Minerva Foods, in accordance with its internal procedures, requires from all suppliers of native firewood in Brazilian operations the Forest Origin Document (DOF), established by MMA Ordinance No. transport and storage of forest products of native origin, including native charcoal. All wood extracted in the national territory must be certified and must have the Document of Forest Origin (DOF), established by MMA Ordinance no. 253, of August 18, 2006. For suppliers of exotic species such as eucalyptus, rubber or orange trees, it is necessary to present a certificate of regularity from IBAMA. For Minerva Foods LATAM operations, a document containing authorization for cutting, sale and transport is required.

Cattle products

Value chain stage

Direct operations
Supply chain

Coverage

Full

Risk assessment procedure

Assessed as part of an established enterprise risk management framework

Frequency of assessment

More than once a year

How far into the future are risks considered?

> 6 years

Tools and methods used

Internal company methods
External consultants
Beef on Track
National specific tools and databases
Jurisdictional/landscape assessment
Other, please specify (MapBiomias, GFW, Guyra)

Issues considered

Impact of activity on the status of ecosystems and habitats
Regulation
Climate change
Loss of markets
Leakage markets
Brand damage related to forests risk commodities
Corruption
Social impacts

Stakeholders considered

Customers
Employees
Investors
Local communities
NGOs
Regulators
Suppliers

Please explain

One of the significant risks in the livestock value chain is illegal deforestation, which may or may not be associated with the invasion of indigenous lands and/or traditional communities or areas of environmental protection. To mitigate such socio-environmental risks in 100% of its commercial relations with cattle ranchers, the Company uses an internal methodology, external consultants and the use of specific national tools and databases, depending on the location in which it operates. For all countries, the Company carries out a document assessment of the supplier (internal methodology), consultation of public lists such as the Register of Employers who subjected workers to conditions analogous to slavery and documents that prove the supplier's land tenure (tools and specific national data). In Brazil, the Company also consults the list of embargoed areas by IBAMA, and with the expansion of geographic monitoring to the entire Brazilian territory, since 2020, there is also an overlap with Conservation Units and Indigenous Lands. Finally, for the zero illegal deforestation criterion, geospatial monitoring is applied, which is carried out pixel by pixel through the CAR polygon, using bases such as PRODES to analyze the deforestation criterion in Brazil and Guyra Deforestation for analysis in the Chaco biome. , along with Mapbiomas tools. For Colombia, Uruguay and Argentina, studies are being developed to define the application of all the criteria mentioned above in a systemic way. Verification of these criteria and procedures is carried out annually by a third party audit ("external consultants"), guaranteeing 100% compliance in sales. Through our geospatial monitoring platform, we are the first company in the country to have 100% of our direct suppliers in all biomes in Brazil. All these territories together represent more than 14 million hectares monitored from purchase to purchase in Brazil. and more than 12 million hectares monitored in Paraguay. against illegal deforestation, invasion of indigenous lands and environmental protection areas Minerva Foods has initiatives involving engagement in landscape/jurisdictional approaches. One of them is the Public Livestock Commitment (CPP) ("Boi na Linha"; "landscape/jurisdictional assessment").

F2.2

(F2.2) For each of your disclosed commodity(ies), has your organization mapped its value chains?

	Value chain mapping	Primary reason for not mapping your value chain	Explain why your organization does not map its value chain and outline any plans to introduce it
Timber products	Yes, we have mapped the entire value chain	<Not Applicable>	<Not Applicable>
Palm oil	<Not Applicable>	<Not Applicable>	<Not Applicable>
Cattle products	Yes, we have partially mapped the value chain	<Not Applicable>	<Not Applicable>
Soy	<Not Applicable>	<Not Applicable>	<Not Applicable>
Other - Rubber	<Not Applicable>	<Not Applicable>	<Not Applicable>
Other - Cocoa	<Not Applicable>	<Not Applicable>	<Not Applicable>
Other - Coffee	<Not Applicable>	<Not Applicable>	<Not Applicable>

F2.2a

(F2.2a) Provide details of your organization's value chain mapping for its disclosed commodity(ies).

Forest risk commodity

Timber products

Scope of value chain mapping

Tier 1 suppliers

% of total suppliers covered within selected tier(s)

100

Description of mapping process and coverage

Supplier homologation through environmental documentation compatible with the activity, covering tier 1 suppliers and small producers.

Your own production and primary processing sites: attach a list of facility names and locations (optional)

Minerva_Foods-RS2021_PT.pdf

Your suppliers' production and primary processing sites: attach a list of names and locations (optional)

Minerva_Foods-RS2021_PT.pdf

Forest risk commodity

Cattle products

Scope of value chain mapping

Tier 1 suppliers

% of total suppliers covered within selected tier(s)

64

Description of mapping process and coverage

64% refer to the mapping of all direct suppliers (tier 1) in Brazil and Paraguay by Minerva Foods, while we're working to map the remaining direct suppliers in other countries we operate (eg. Colombia and Uruguay). In Brazil, Minerva is the only company to monitor 100% of the direct supplier farms with georeferenced maps in all the biomes in which it operates (Amazon, Cerrado, Pantanal and Atlantic Forest), including all full cycle farms, from birth to slaughter of the animals. In Paraguay, Minerva Foods is also a pioneer in geospatial monitoring and 100% of supplier farms are monitored according to established socio-environmental criteria. The goal now is to achieve 100% geographic monitoring of direct supplier farms in Colombia by 2023, Uruguay in 2025 and expansion to other South American countries by 2030. As already mentioned, Minerva Foods is the pioneer company to integrate the tool Visipec in its internal systems, enabling the crossing of information from the Rural Environmental Registry (CAR) of the property with public databases to monitor the movement of cattle in their production cycle in the Amazon, in addition to launching the Prospec application in partnership with NicePlanet Tecnologia, giving the cattle ranchers the opportunity to consult the compliance of their supply chain throughout Brazil.

Your own production and primary processing sites: attach a list of facility names and locations (optional)

Minerva_Foods-RS2021_PT.pdf

Your suppliers' production and primary processing sites: attach a list of names and locations (optional)

Minerva_Foods-RS2021_PT.pdf

F3. Risks and opportunities

F3.1

(F3.1) Have you identified any inherent forests-related risks with the potential to have a substantive financial or strategic impact on your business?

	Risk identified?
Timber products	Yes
Palm oil	<Not Applicable>
Cattle products	Yes
Soy	<Not Applicable>
Other - Rubber	<Not Applicable>
Other - Cocoa	<Not Applicable>
Other - Coffee	<Not Applicable>

F3.1a

(F3.1a) How does your organization define substantive financial or strategic impact on your business?

Minerva Foods has a Risk Management Policy in force since 2019 and published on the company's website. The risks to which the Company is subject are periodically identified, documented and formalized in a structured manner so that they are known and dealt with. Such risks must be categorized according to their nature and origin, as indicated below:

1. Strategic Risks: these are the risks associated with strategic decisions made by management to achieve its business objectives. 2. Financial Risks: divided into three segments:

(i) Market Risks: arise from the possibility of losses that may be caused by changes in the behavior of interest rates, exchange rates, share prices and commodity prices; (ii) Credit Risks: characterized by the possibility of loss resulting from uncertainty regarding the receipt of amounts agreed with third parties as a result of their economic and financial incapacity; (iii) Liquidity Risks: consist of the possibility of the Company not being able to effectively honor its obligations on the due date, or only doing so with high losses. 3. Compliance Risks: these are the risks of sanctions related to non-compliance with applicable legislation, agreements, regulations, codes of conduct and/or policies. 4. Operational Risks: are those arising from the Company's infrastructure, which may affect its operational efficiency and the effective and efficient use of resources. Financial or strategic impacts that significantly affect Minerva's business may be those in which the Company's operating margins are adversely affected by fluctuations in raw material costs and the selling prices of its products. Operating margins depend on the purchase price of raw materials (such as the purchase of cattle) and the selling price of your products. These prices can vary significantly as a result of several factors. Minerva Foods sees risk management as an essential tool to ensure operational efficiency, employee health and safety, social and environmental compliance, high standards of The company is committed to managing the risks inherent in its activity and believes that of these risks helps to preserve and develop its values

and assets, in addition to protecting its reputation. Such management is premised on maintaining risks at acceptable levels. Risk management directly involves the Board of Directors, with advice from the Finance and Risk Committee, a non-statutory governance body that assesses scenarios, assesses the risks to which the Company is exposed and issues recommendations on critical aspects of reputation, integrity and continuity. of business matters. The Company manages a wide range of risks relevant to the sector, including financial risks, credit risks and risks related to transactions and exports, economic downturns, derivative financial instruments and interest rate fluctuations. The scope of risk management also includes risks related to social, environmental and climate issues, customers and sanitary barriers. In terms of raw material, cattle represent approximately 80% of the Company's cost. The supply and price of this raw material depend on factors over which the Company has little or no control, including supply and demand for animals, atypical weather conditions resulting from climate change (such as dry periods in months normally characterized by good rainfall), outbreaks of diseases such as foot-and-mouth disease and eventual outbreaks of new diseases, costs related to supplementation, economic conditions, among others. The sales prices of its products may vary significantly depending on the demand for beef in the domestic and foreign markets, as well as in the market for other protein products, including poultry and pork, which may be impacted by the mitigation and adaptation of climate changes that may impact the availability and quality of raw materials and entry into new markets. Thus, to mitigate the financial impact of this risk, cattle purchases can be directed to other locations due to the geographic diversity of the Company's operations.

F3.1b

(F3.1b) For your disclosed forest risk commodity(ies), provide details of risks identified with the potential to have a substantive financial or strategic impact on your business, and your response to those risks.

Forest risk commodity

Cattle products

Type of risk

Acute physical

Geographical scale

Municipality or equivalent

Where in your value chain does the risk driver occur?

Direct operation

Primary risk driver

Drought

Primary potential impact

Increased operating costs

Company-specific description

Climate change intensified by the deforestation of native vegetation alters the rainfall regime, which can cause an increase in the occurrence of extreme hydrological events, such as floods and long periods of drought. These events affect water availability, threatening the supply of cattle to all of Minerva Foods' beef production units in Brazil, Argentina, Colombia, Uruguay and Paraguay. In the northern region of Brazil or northern Minas Gerais, for example, where herd supplementation is less common than in the central-south, long periods of drought can increase the price of cattle in proportions higher than those observed in the central-west or southeast of the country. This means that the Araguaína and Rolim de Moura units may be affected (approximately 10% of the company's slaughter), and so that the company does not stop producing, increase the slaughter in the other units of the company.

Timeframe

>6 years

Magnitude of potential impact

Medium-low

Likelihood

Likely

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact (currency)

<Not Applicable>

Potential financial impact figure - minimum (currency)

<Not Applicable>

Potential financial impact figure - maximum (currency)

<Not Applicable>

Explanation of financial

There are no costs as it is an internal planning of the Company.

Primary response to risk

Supplier diversification

Description of response

Situations of scarcity of water resources promote strategic changes in the Company in order to add other suppliers that are located in regions with greater availability of the resource so that there is the supply of raw material for the industries. A significant financial impact is one that limits or prevents the slaughter and production of beef. Climate changes and prolonged droughts invariably impact the supply of raw materials (live cattle) and reflect on business performance. There are strategic markets/portfolios that, if not attended to (eg niche markets and China) could represent a loss to the operation. To export to China it is necessary to acquire young animals (with a maximum of 30 months) and the drought directly impacts this supply as it reduces the quality of pastures, impairs productivity and increases the fattening time and age of the animals. When the unavailability of raw material or the price increase is verified, the possibility of carrying out the slaughter in another unit is studied. An important decision was taken in 2021, to increase geographic diversification again, reducing the risk of lack of local supply of raw materials and consumption of natural resources, the ability to arbitrage and entry into other branches of the protein market. The acquisition, through a structured joint venture with Salic, of two slaughterhouses specializing in sheep in Australia

Cost of response

1500000

Explanation of cost of response

Amount invested annually in the supplier monitoring tool.

Forest risk commodity

Cattle products

Type of risk

Regulatory

Geographical scale

Country

Where in your value chain does the risk driver occur?

Direct operation

Supply chain

Primary risk driver

Non-compliance with national legislation

Primary potential impact

Reduction or disruption in production capacity

Company-specific description

If our cattle suppliers do not comply with labor and environmental regulations, Company policies and procedures - such as geospatial monitoring of suppliers' properties to check for deforestation, overlaps with indigenous lands and conservation units - they are unable to negotiate with the Company. This can result in disruptions to the beef supply chain. So far in 2021, in Brazil, encompassing all Minerva Foods units, more than 374 more than 1,440 suppliers were blocked due to non-compliance with social and environmental regulations. Of the total blockages, 28 suppliers were de-accredited according to the Employer Registry criteria that have subjected workers to conditions similar to slavery, 89 for being on the Ibama list, 228 for deforestation, 1 for overlapping with Indigenous Land, 3 for overlapping with quilombola areas. and 25 by overlapping Conservation Units. It is worth mentioning that Minerva Foods reinforces its support for the regularization of its suppliers aiming to be reinserted in the company's supply chain.

Timeframe

>6 years

Magnitude of potential impact

Medium-high

Likelihood

Likely

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact (currency)

1372850

Potential financial impact figure - minimum (currency)

<Not Applicable>

Potential financial impact figure - maximum (currency)

<Not Applicable>

Explanation of financial

The value of the fine (R\$500.00) per head of cattle acquired in 2021 in Pará (Brazil) was considered for the calculation of the impact.

Primary response to risk

Greater traceability of forest-risk commodities

Description of response

The company uses all available technology to guarantee the traceability of cattle suppliers, ensuring environmental, labor and land tenure compliance of its producer portfolio. Farm monitoring to detect liabilities and irregularities is carried out through the geospatial monitoring platform called SMGeo Direto, developed by the company Niceplanet Geotecnologia. In all analyses, the direct supplier map is superimposed with the criteria established in the Minerva Policy. For all regions and biomes in Brazil, traceability of direct supply is ensured, requiring documentation to prove ownership of the property, presentation of the Rural Environmental Registry (CAR), consultation of information publicly available by Ibama to verify the existence of deforestation illegal activity, invasion of indigenous or quilombola lands and conservation units, in addition, analysis of the register of employers who subjected workers to conditions analogous to slavery made available by the Ministry of Economy. The Company also seeks to evolve its mechanisms to ensure the same level of traceability in critical territories in other South American countries where it operates. In Paraguay, the company is a pioneer in geospatial monitoring and 100% of supplier farms are monitored in accordance with established socio-environmental criteria. Minerva Foods is committed to geo-monitoring 100% of the direct supply farms in Colombia by 2023, Uruguay by 2025 and other South American countries by 2030.

Cost of response

1500000

Explanation of cost of response

The calculation considers the annual amount spent with the geospatial monitoring system

Forest risk commodity

Timber products

Type of risk

Acute physical

Geographical scale

Municipality or equivalent

Where in your value chain does the risk driver occur?

Direct operation

Supply chain

Primary risk driver

Drought

Primary potential impact

Increased capital costs

Company-specific description

Climate change intensified by the deforestation of native vegetation alters the rainfall regime, which can increase the occurrence of extreme hydrological events, such as floods and long periods of drought. Such factors can directly affect the cultivation of biomass (firewood). Excessive rainfall affects the moisture of the fuel, thus reducing its heating power. Lower calorific value results in higher consumption and consequent higher cost. For example, the operational units of Araguaína and Rolim de Moura have a high rainfall regime, with the possibility of an increase in the frequency of extreme events, the risk becomes a greater degree of significance.

Timeframe

>6 years

Magnitude of potential impact

Medium-low

Likelihood

Likely

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact (currency)

2000000

Potential financial impact figure - minimum (currency)

<Not Applicable>

Potential financial impact figure - maximum (currency)

<Not Applicable>

Explanation of financial

Estimated value of fixed costs per day of stoppage of the two factories in the North region (Araguaína and Rolim de Moura) - 1 million per factory.

Primary response to risk

Supplier diversification

Description of response

The business intelligence department is responsible for conducting climate assessments to identify significant impacts of weather events that could affect raw material prices and operating costs. One of the tools used is market analysis with the help of a consultancy, which, in addition to discussing financial issues, also analyzes rainfall (for example, rainfall, La Niña, El Niño effects) and their effects in the regions where the Company has operating units and value chain. Risk management directly involves the Board of Directors, with advice from the Finance and Risk Committee, a non-statutory governance body that assesses scenarios, assesses the risks to which the Company is exposed and issues recommendations on critical aspects of reputation, integrity and continuity. of business matters. When the unavailability of raw material or the price increase is verified, the possibility of carrying out the slaughter in another unit is studied.

Cost of response

0

Explanation of cost of response

There are no costs as it is an internal planning of the Company.

Forest risk commodity

Timber products

Type of risk

Regulatory

Geographical scale

Forest management unit

Where in your value chain does the risk driver occur?

Direct operation

Primary risk driver

Increased difficulty in obtaining operations permits

Primary potential impact

Reduction or disruption in production capacity

Company-specific description

To comply with current legislation, the Company needs hot water to sterilize equipment. With the lack of firewood, the boiler cannot be supplied, consequently, there is no production of steam and without steam, the activities cannot be carried out in the plants that use this fuel (all units in Brazil, Paraguay and Uruguay) If the standards are below that allowed by the inspection body, production is immediately suspended until the ideal temperature is reached, which can only be achieved by injecting steam into the line, which can generate sanctions by these same regulatory bodies.

Timeframe

>6 years

Magnitude of potential impact

High

Likelihood

Likely

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact (currency)

2000000

Potential financial impact figure - minimum (currency)

<Not Applicable>

Potential financial impact figure - maximum (currency)

<Not Applicable>

Explanation of financial

Estimated value of fixed costs per day of stoppage of the two factories in the North region (a million reais per factory)

Primary response to risk

Market expansion

Description of response

Through the approval of more suppliers, the Company manages to diversify its purchase and reduce the risk of lack of firewood

Cost of response

0

Explanation of cost of response

Response cost has not yet been calculated

F3.2

(F3.2) Have you identified any forests-related opportunities with the potential to have a substantive financial or strategic impact on your business?

	Have you identified opportunities?
Timber products	Yes
Palm oil	<Not Applicable>
Cattle products	Yes
Soy	<Not Applicable>
Other - Rubber	<Not Applicable>
Other - Cocoa	<Not Applicable>
Other - Coffee	<Not Applicable>

F3.2a

(F3.2a) For your selected forest risk commodity(ies), provide details of the identified opportunities with the potential to have a substantive financial or strategic impact on your business.**Forest risk commodity**

Cattle products

Type of opportunity

Markets

Where in your value chain does the opportunity occur?

Direct operation

Supply chain

Other parts of the value chain

Primary forests-related opportunity

Expansion into new markets

Company-specific description & strategy to realize opportunity

Expanding the offer of training opportunities and technical assistance to producers for the implementation of regenerative and low-carbon practices is part of Minerva Foods' commitment to Sustainability. In 2021, the company launched a partnership with IFC – International Financial Corporation, kickstarting the Advisory project in Paraguay, which is a pilot project with 20 producers. The scope includes the selection, engagement and training of these suppliers with animal welfare practices, increased productivity, compliance with socio-environmental criteria, good practices, among others. An identity brand was also created for the participating ranchers, with the "Criados em Terra Fétil" seal. The pilot project was well accepted, and includes the opportunity to expand to all countries, replicating the same criteria. The projects are in the final

evaluation phase, for this reason it is not yet possible to analyze their effective results.

Estimated timeframe for realization

>6 years

Magnitude of potential impact

Medium-high

Likelihood

Virtually certain

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

As it is a pilot project, still in the final evaluation phase, we do not have this amount. To make the project viable, Minerva Foods and IFC each made a contribution of approximately R\$ 250,000.00

Forest risk commodity

Cattle products

Type of opportunity

Markets

Where in your value chain does the opportunity occur?

Supply chain

Primary forests-related opportunity

Increased growth in the alternative protein market

Company-specific description & strategy to realize opportunity

In 2020, Minerva Foods created its innovation area focused on the pillars of advanced data analysis, e-commerce/marketplace and venture capital platform, with the objective of reducing risks, maximizing opportunities and advancing in the value chain of the food industry. In 2021, Minerva Foods invested in research and development to seize opportunities and mitigate climate risks through a US\$ 4 million investment in The EVERY Company – formerly called Clara Foods, a startup based in San Francisco (United States) and active in protein-based fermentation products, free from animal protein. This innovative partnership aims to serve the growing niche of more environmentally conscious consumers as well as leverage the alternative protein market, solving one of the biggest obstacles in the food industry. The startup's production process uses ingredients free of pesticides, antibiotics and preservatives, in addition to consuming less water and energy, in line with the Company's sustainability strategy. It is expected that as early as 2022, the first venture from this partnership will be ready for commercialization. Also, a joint venture was carried out with an initial investment of US\$ 5 million in Amyris, with the objective of developing several products, mainly in the segment of recombinant proteins via a fermentation process and animal free protein, including natural fermentation preservatives that allow significant changes in the beef storage and transport process. Minerva Foods will have an initial 60% stake in the joint venture's total capital. The expectation is that the first initiative of this partnership will be ready to be commercialized as early as 2022, while another 4 products are still in the initial phase of research and development. In addition, in 2021, we announced the acquisition, through a joint venture structured with Salic, of two slaughterhouses specializing in sheep in Australia - an important step towards expanding our geographic diversification, our arbitrage capacity and entering other branches of the sheep protein market.

Estimated timeframe for realization

>6 years

Magnitude of potential impact

Medium

Likelihood

Virtually certain

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

Potential financial impact has not been calculated

Forest risk commodity

Cattle products

Type of opportunity

Markets

Where in your value chain does the opportunity occur?

Supply chain

Primary forests-related opportunity

Increased availability of products with reduced environmental impact (other than certified products)

Company-specific description & strategy to realize opportunity

Minerva Foods is committed to being carbon neutral by 2035. To this end, the Company launched the Renove program in 2021, which aims to strengthen and implement sustainable livestock farming for low-carbon production. Renove has 3 distinct projects in progress: [1] MRV Agro Project: in partnership with Embrapa to develop a Measurement, Reporting and Verification (MRV) protocol for Agro; develop the AgroTag Carbono application for georeferencing data and calculating the farms' GHG emissions inventory; and finally, adapt and update the GHG Protocol for the country. In this project, there is no implementation of practices, only technical study as a contribution to science and development, the results reports will be publicly available soon (Deadline: March 2023). [2] LATAM Certification Project: carried out in partnership with Imaflora calculated the carbon balance and emission intensity in 5 farms in each country of operation, Argentina, Brazil, Colombia, Paraguay and Uruguay, totaling 25 farms. The estimate of the intensity of emissions in global bovine production, found from the analysis of more than 30 scientific articles, was 19.9 tons of CO2 per ton of meat produced. The company's 25 supplier farms are on average 44% below this value. Minerva Foods was the first and currently the only one in the sector to integrate and report its project on Imaflora's Carbon on Track* platform. The farms participating in this project will have their carbon footprint certified in 2022. Through annual audits, it will be possible to monitor agricultural activities, showing improvements on farms through the implementation of low-emission practices. [3] Carbon Project, with Biofíllica Ambipar Environment: livestock suppliers are being invited to participate in the project (10 farms in the Paraguayan Chaco and 50 farms in Brazil), which aims to connect farms with the voluntary carbon market, green finance and capacity building, for the expansion of low-carbon practices in livestock. In 2021, the project was structured in phases: Phase 1 – Diagnosis of farms to enter a carbon project (Current phase); Phase 2 – Formalization of the participation of eligible farms in the project (March 2023); Phase 3 – Implementation of sustainable agricultural practices that sequester or reduce carbon (March 2023); and Phase 4 – Generation of Carbon Credits (August 2023).

Estimated timeframe for realization

>6 years

Magnitude of potential impact

High

Likelihood

Very likely

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

5000000000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

According to studies, the financial potential for generating carbon credits for Agribusiness in Brazil is R\$ 5 billion reais

Forest risk commodity

Timber products

Type of opportunity

Efficiency

Where in your value chain does the opportunity occur?

Direct operation

Supply chain

Other parts of the value chain

Primary forests-related opportunity

Cost savings

Company-specific description & strategy to realize opportunity

The company is studying the feasibility of using alternative fuel sources to reduce the consumption of firewood, native or exotic. The main potential lies in the burning of rumen content from the production process itself. The fuel source (rumen) is strategic for the company since there is internal and direct generation from the slaughtering process. In order to reduce the amount of firewood consumed and the disposal of waste generated at the operational units to third parties, the use of this material is essential for reducing the Company's environmental impact. This is already a reality at the Belén unit in Paraguay. In Brazil, the project is still in the study phase, such as the analysis of the comparison of the environmental impact of this change, that is, it will have a greater emission of Greenhouse Effect Gas in the boiler (since we will burn less renewable material) but will have a reduction in the generation of waste discarded by the Company. As the data has not yet been finalized, it was not possible to measure the financial and environmental impact and opportunity. If the project is considered viable, it will start in 2022/2023.

Estimated timeframe for realization

1-3 years

Magnitude of potential impact

Medium-low

Likelihood

Virtually certain

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

The potential financial impact has not been calculated as the project is under technical feasibility analysis. The calorific value of the material and its potential in comparison with firewood are being studied, as well as its compatibility with the boiler (checking if any adaptation will be necessary).

F4. Governance

F4.1

(F4.1) Is there board-level oversight of forests-related issues within your organization?

Yes

F4.1a

(F4.1a) Identify the position(s) of the individual(s) (do not include any names) on the board with responsibility for forests-related issues.

Position of individual	Please explain
Board-level committee	Minerva Foods has a Finance and Risk Committee, which assist the Board in monitoring and evaluating the effectiveness of the financial policies applied by the company, in the fulfillment of its responsibilities, including issuing recommendations to the Board and Management on risks and mitigation strategies, with the objective of providing greater efficiency and quality to the decisions taken by the Board of Directors, as well as in monitoring and evaluating the effectiveness of the policies applied by the company, including the Risk Management Policy. Also, the Committee also assists in the implementation of mitigation measures for risk factors to which the Company is exposed, as well as in the analysis of the Brazilian and world economic situation, with its potential effects on the company's financial, operational and strategic position. The Finance and Risk Committee, together with the Company's Board of Directors, must constantly analyze the risks to which the Company is exposed.
Chief Executive Officer (CEO)	Company's CEO acts to resolve and make important decisions about forest-related issues such as pioneering supply chain monitoring beyond Brazilian border, managing the organization's global resources and operations and acts as the central point of communication between operations and the Board of Directors.
Chief Operating Officer (COO)	The COO acts as direct support to the CEO in the implementation of the Company's strategic plan, guiding the directors under his management to comply with the Policies established by the Company, such as the Sustainable Purchase of Cattle. The COO is responsible for identifying priority demands and referring them to the CEO's considerations, such as those arising from socio-environmental criteria that permeate climate issues, in addition to ensuring that industrial managers are complying with other relevant guidelines and strategies for Minerva Foods. In 2021, there was a study of applicable legislation and definition of socio-environmental criteria for the acquisition of cattle in Paraguay. The COO reports directly to the Company's CEO, to whom, on a monthly basis, he reports the operational data of the industries, including the purchase of cattle in accordance with the monitoring of criteria for combating deforestation.
Chief Sustainability Officer (CSO)	The Sustainability Department is responsible for identifying and managing risks and opportunities related to the ESG (Environmental, Social and Governance) strategy and the Company's Sustainability Commitments. It carries out, on a tactical and operational basis, projects related to combating deforestation, traceability of production chains, management of greenhouse gas emissions, among others. The Sustainability Department carries out socio-environmental analyzes of its cattle suppliers, the main input to the process, to assess risks related to deforestation, invasion of protected areas, indigenous lands and conservation units. It also monitors the relationship of its suppliers with slave-like labor. If the aforementioned socio-environmental risks are identified, the sale is not carried out. The Sustainability Director monitors the action plan defined by the teams responsible for the traceability of the value chain on a monthly basis.
Other, please specify (Cattle Purchasing Director)	The Company's cattle purchasing director is responsible for implementing the Company's Sustainable Purchasing Policy, which establishes forest-related criteria for the purchase of raw materials.
Other, please specify (Industrial Director)	Minerva Foods has a corporate environment team and supervisors allocated to each industrial plant responsible for the management of water and effluent, waste generation, development of efficiency projects for these resources and energy management in order to reduce its consumption and consume from renewable sources, as well such as managing the consumption of firewood for use in the units' boilers. Investments in improving environmental indicators are continuous, in order to increase the Company's performance in the environmental area.
Other, please specify (The Sustainability and Innovation Advisory Board)	The Sustainability and Innovation Advisory Board is a non-statutory collegiate advisory body, linked to the Company's Board of Directors, responsible for monitoring and discussing practices related to socio-environmental sustainability, corporate governance and innovation, in order to provide greater transparency, efficiency and assertiveness of Minerva Foods initiatives. The duties of the Advisory Board are based on advising the Executive Board on the analysis of initiatives related to social and environmental sustainability, corporate governance, research, technological trends and innovations, addressing and suggesting ways to deal with these issues. This board meets at least once a month and is composed of 5 members being the CEO, CFO, two independent members and a guest of the Board of Directors.
Other, please specify (Sustainability Committee)	The Sustainability Commission aims to drive the sustainability agenda across the organization and assist in decision-making related to environmental, social responsibility and animal welfare issues. In addition, it also assesses the risks and opportunities arising from climate change and divides this assessment into multidisciplinary working groups that determine and implement actions focused on the topic. The committee also monitors the evolution of these actions through absolute and relative indicators. The Committee is composed of the CEO, CFO, CHRO, CTO, Institutional Relations Department, Legal Department, Sustainability Department and Sustainability Management. Published in 2021 and defined by the Sustainability Commission, the Commitment to Sustainability detailing initiatives focused on three key areas to achieve net zero emissions by 2035 (operational efficiency; illegal deforestation combat; Remove Program).
Other, please specify (ESG Communication Committee)	In order to improve communication between Minerva's areas that make up the environmental, social and governance pillar, the ESG Communication Committee was created, in which the areas involved present the relevant projects in the current month, such as projects related to greenhouse gases emissions and climate change adaptation and mitigation. The Committee meets monthly and is composed of the areas of Sustainability, Communication, Environment, Occupational Health and Safety, Human Resources, Quality and Animal Welfare. In addition, the Chief Transformation Office, the Legal Department and an external communication consultancy also participate.

F4.1b

(F4.1b) Provide further details on the board's oversight of forests-related issues.

	Frequency that forests-related issues are a scheduled agenda item	Governance mechanisms into which forests-related issues are integrated	Please explain
Row 1	Scheduled - some meetings	Monitoring implementation and performance Overseeing acquisitions and divestiture Reviewing and guiding business plans Reviewing and guiding corporate responsibility strategy Reviewing and guiding risk management policies Reviewing and guiding strategy	Minerva's board considers the potential effects of forest-related issues when evaluating supply chain, recognizing the vulnerability of natural resources and agricultural inputs, which are essential for the beef industry. Among initiatives to oversight and reduce the exposure to forest-related issues and maintain the Company's competitiveness in terms of costs, Minerva's board guide constant monitoring and auditing all cattle purchasing where it operates. Moreover, it provides better business intelligence to buying decisions, as well as anticipating price movements across different commodity markets.

F4.1d

(F4.1d) Does your organization have at least one board member with competence on forests-related issues?

Row 1

Board member(s) have competence on forests-related issues

Yes

Criteria used to assess competence on forests-related issues

Minerva Foods has a member of the boards of directors that is also a member of the External Advisory Committee of EMBRAPA Pecuária Sudeste (Brazilian Agricultural Research Corporation). Agronomist from ESALQ/USP (1990) and a PhD in Applied Economics from ESALQ/USP (1999). He was professor at the Department of Economics, Administration and Sociology at ESALQ/USP, in the areas of Macroeconomics, Economic Development and Agricultural Economics, since 1995. He is Professor of Agricultural Economics at Fundação Getúlio Vargas, since 2005. He was a member of the Board of Directors of Fosfertil and is a member of the Boards of Directors of Grupo Schoenmaker/Terra Viva and Grupo Otávio Lage. Member of the Superior Council of Agribusiness at FIESP. He is a Partner-Consultant at MB Agro and at Ruralcon Agricultural Management Consulting.

Primary reason for no board-level competence on forests-related issues

<Not Applicable>

Explain why your organization does not have at least one board member with competence on forests-related issues and any plans to address board-level competence in the future

<Not Applicable>

F4.2

(F4.2) Provide the highest management-level position(s) or committee(s) with responsibility for forests-related issues (do not include the names of individuals).

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on forests-related issues	Please explain
Chief Sustainability Officer (CSO)	Both assessing and managing forests-related risks and opportunities	More frequently than quarterly	The Sustainability Department is responsible for identifying and managing risks and opportunities related to the ESG (Environmental, Social and Governance) strategy and the Company's Sustainability Commitments. It carries out, on a tactical and operational basis, projects related to combating deforestation, traceability of production chains, management of greenhouse gas emissions, among others. The Sustainability Department carries out socio-environmental analyzes of its cattle suppliers, the main input to the process, to assess risks related to deforestation, invasion of protected areas, indigenous lands and conservation units. It also monitors the relationship of its suppliers with slave-like labor. If the aforementioned socio-environmental risks are identified, the sale is not carried out. The Sustainability Director reports directly to the Executive Director of Institutional Relations and works together with the CEO, other members of the Board of Directors and the Sustainability and Innovation Advisory Board – an advisory body to Senior Management – in promoting the sustainability agenda. In addition, sustainability management is corporately responsible for managing practices, procedures and processes related to the monitoring and traceability of chains and their livestock products, ensuring adherence to and compliance with the commitments to which the Company is a signatory and the legislation in force.
Other, please specify (Chief Operating Officer (COO))	Both assessing and managing forests-related risks and opportunities	More frequently than quarterly	The Chief Operating Officer is responsible for the origination department, through which the supply of cattle, the main input to the process, is guaranteed, in accordance with the socio-environmental criteria adopted by the Company: zero illegal deforestation, preservation of protected areas and traditional communities and combating slave-like work. For each potential cattle purchase opportunity that is mapped, a risk analysis is carried out to verify the existence of deforestation, invasion of indigenous lands and environmental protection areas and other Company criteria. Risk analysis is carried out by geospatial monitoring and in case of non-compliance, commercialization is not carried out, in order to ensure that Minerva Foods' supply chain is safe and sustainable. The COO reports directly to the Company's CEO, to whom, on a monthly basis, he reports the operational data of the industries, including the purchase of cattle in accordance with the monitoring of criteria for combating deforestation.
Other, please specify (Sustainability and Innovation Advisory Board)	Both assessing and managing forests-related risks and opportunities	More frequently than quarterly	The Sustainability and Innovation Advisory Board is a non-statutory collegiate advisory body, linked to the Company's Board of Directors, responsible for monitoring and discussing practices related to socio-environmental sustainability, corporate governance and innovation, in order to provide greater transparency, efficiency and assertiveness of Minerva Foods initiatives. The duties of the Advisory Board are based on advising the Executive Board on the analysis of initiatives related to social and environmental sustainability, corporate governance, research, technological trends and innovations, addressing and suggesting ways to deal with these issues. This board meets at least once a month and is composed of 5 members being the CEO, CFO, two independent members and a guest of the Board of Directors.
Sustainability committee	Both assessing and managing forests-related risks and opportunities	More frequently than quarterly	The Sustainability Committee aims to drive the sustainability agenda across the organization and assist in decision-making related to environmental, social responsibility and animal welfare issues. In addition, it also assesses the risks and opportunities arising from climate change and splits this assessment into multidisciplinary work groups that determine and implement actions aimed at the topic. The committee also monitors the evolution of these actions through absolute and relative indicators. The Committee includes the CEO, CFO, CHRO, CTO, Institutional Relations Department, Legal Department, Sustainability Department and Sustainability Management.
Environment/Sustainability manager	Both assessing and managing forests-related risks and opportunities	More frequently than quarterly	The attributions between the environmental managers are divided between the Brazil and LATAM teams, covering all other countries in South America with the exception of Brazil. The managers are responsible for managing operations related to wood purchase, CAPEX projects, documentation (license validity, compliance with conditions, etc.) and strategy and management of environmental indicators, routines and indicators assessments.

F4.3

(F4.3) Do you provide incentives to C-suite employees or board members for the management of forests-related issues?

	Provide incentives for management of forests-related issues	Comment
Row 1	No, and we do not plan to introduce them in the next two years	The goals defined by the Commitment to Sustainability were established by the Sustainability Committee, in which the Company's C-Levels participate.

F4.4

(F4.4) Did your organization include information about its response to forests-related risks in its most recent mainstream financial report?

Yes (you may attach the report – this is optional)

Formulário de Referência 2022.pdf

F4.5

(F4.5) Does your organization have a policy that includes forests-related issues?

Yes, we have a documented forests policy that is publicly available

F4.5a

(F4.5a) Select the options to describe the scope and content of your policy.

	Scope	Content	Please explain
Row 1	Company-wide	Commitment to eliminate conversion of natural ecosystems Commitment to eliminate deforestation Commitment to protect rights and livelihoods of local communities Commitments beyond regulatory compliance Commitment to transparency Commitment to stakeholder awareness and engagement Recognition of the overall importance of forests and other natural ecosystems List of timebound milestones and targets	The policy's main objective is to present guidelines for cattle purchasing from Minerva Foods and its subsidiaries on the commitments assumed with the management of socio-environmental aspects of the supply chain and sustainability, internal rules and standards established by regulatory bodies. Minerva Foods seeks to ensure through this procedure that all cattle purchases are carried out in accordance with the rules described in this document with responsibility and integrity. Thus, every company document must be reviewed/updated every 2 years. In Brazil, Minerva Foods is the only company in the sector to implement traceability of its direct supplier farms in all the biomes in which it operates (Amazon, Cerrado, Atlantic Forest and Pantanal) through geospatial monitoring systems. Monitoring takes place in 100% of purchases to verify the existence of illegal deforestation, invasion of indigenous lands, traditional communities and environmental protection areas and convictions for labor analogous to slavery. The Company is still a pioneer in expanding the monitoring of direct supplier farms to Paraguay, where purchases are monitored to verify the existence of illegal deforestation, overlaps with indigenous lands and areas of environmental protection. In the other operating countries in South America, Minerva Foods will expand its chain traceability systems by 2030, in accordance with the goals set out in its Commitment to Sustainability. In addition, Minerva Foods is also committed to having 50% of its beef suppliers participate in the low carbon program (Programa Renove), which should expand the offer of training opportunities and technical assistance to producers for the implementation of regenerative and low-carbon practices, in addition to supporting the inclusion of ranchers to meet the requirements of the Program.

F4.5b

(F4.5b) Do you have commodity specific sustainability policy(ies)? If yes, select the options that best describe their scope and content.

	Do you have a commodity specific sustainability policy?	Scope	Content	Please explain
Timber products	Yes	Company-wide	Commitment to eliminate deforestation	All firewood suppliers are subject to documentary verification to ensure that the product supplied does not come from an illegally deforested area, subject to an operating license for the activity. These precautions reinforce the Company's commitment to purchasing products that comply with socio-environmental legislation.
Palm oil	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Cattle products	Yes	Company-wide	Commitment to eliminate deforestation Commitments beyond regulatory compliance Commitment to transparency Commitment to stakeholder awareness and engagement Recognition of the overall importance of forests and other natural ecosystems	Minerva Foods is committed to sustainability through the goal of zeroing illegal deforestation throughout the South American production chain by 2030, expanding geographic monitoring of direct supplier farms to all countries operating in South America by 2030, in addition to developing and implementing a monitoring program for indirect supplier farms for all countries operating in South America by 2030. The initiatives focused on this topic are: integration of the Visipec tool into Minerva Foods' systems in 2021 (goal completed four months in advance) and the application of verification of indirect suppliers in partnership with Niceplanet Geotecnologia for Brazil also in 2021 (goal completed) and other countries by 2030. In addition, Minerva Foods is also committed to having 50% of its beef suppliers participate in the low carbon program (Renove), which should expand the offer of training opportunities and technical assistance to producers to implement practices and low emissions. of carbon, besides supporting the inclusion of cattle ranchers to meet the requirements of the Program. We use geospatial monitoring to detect overlapping polygons in deforested areas for direct suppliers in Brazil and Paraguay. The Company has a blocking system called Black List, which is directly integrated into the Cattle Purchase and Livestock Registration system, in which geospatial monitoring is carried out individually, and when non-compliance is found, the supplier is blocked until the regularization. The Company, through the Cattle Purchasing team, assists and guides its suppliers in the proper handling of the matter. Following the 2035 target plan, in which we commit to monitoring 100% of the supply chain by 2030 in all countries of operation.
Soy	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Other - Rubber	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Other - Cocoa	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Other - Coffee	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>

F4.6

(F4.6) Has your organization made a public commitment to reduce or remove deforestation and/or forest degradation from its direct operations and/or supply chain?

Yes

F4.6a

(F4.6a) Has your organization endorsed any of the following initiatives as part of its public commitment to reduce or remove deforestation and/or forest degradation?

Cattle Agreement (TAC)

Other, please specify (Public Livestock Commitment signed in October 2009 and Protocol for Monitoring Cattle Suppliers in the Amazon)

F4.6b

(F4.6b) Provide details on your public commitment(s), including the description of specific criteria, coverage, and actions.

Forest risk commodity

Cattle products

Criteria

No conversion of natural ecosystems
Zero gross deforestation/ no deforestation
Avoidance of negative impacts on threatened and protected species and habitats
No conversion of High Conservation Value areas
Secure Free, Prior and Informed Consent (FPIC) of indigenous people and local communities
Adoption of the UN International Labour Organization principles
No sourcing of illegally produced and/or traded forest risk commodities
Recognition of legal and customary land tenure rights

Operational coverage

Direct operations and supply chain

% of total production/ consumption covered by commitment

100%

Cutoff date

2008

Commitment target date

2026-2030

Please explain

Minerva Foods utilizes the best available technology in its traceability practices to ensure compliance with environmental, labor and land tenure regulations within its portfolio of producers, with a focus on topics such as biodiversity and human rights. With regard to the environment, the Company pioneered the wider application of geospatial monitoring technology to 100% of direct suppliers in all biomes of Brazil (Amazon, Cerrado, Pantanal and Atlantic Forest). In 2021 the implementation of monitoring for 100% of purchases in Paraguay was concluded. The objective is to achieve the same range of coverage for Colombia (2023), Uruguay (2025) and all other countries in which Minerva operates in South America (2030). Geospatial monitoring tracks the condition of the ranches, ensuring that cattle purchased by Minerva Foods do not originate from properties with illegally deforested areas; possess environmental embargoes (punitive measures issued by inspection and control agencies that stop production activities that degrade the environment); are overlapping with indigenous lands and/or traditional communities and conservation units; and are not associated with the use of labor analogous to slavery, ie., there is no illegal deforestation, use of labor analogous to slavery or child labor and environmental embargoes in the Minerva Foods supply chain. Should any non-conformity be detected of the socio-environmental criteria, the supplier is blocked until the situation is corrected. Audit of the monitoring system is conducted annually. The Company maintains the best performance, among major players in the market for the third consecutive year, in the third-party audit carried out by the Federal Public Prosecutors's Office in Pará, the main and most reliable tool for social and environmental verification of the Brazilian production chain. The results for the audit conducted in 2020 demonstrated that of the totaled 113,520 animals purchased, 100% originated from properties that are in compliance with all criteria of the Termo de Ajustamento de Conduta (TAC) under the Federal Public Ministry. This took into account transactions carried out by Minerva Foods between January 2018 and June 2019. The Company has maintained a 100% compliance, since 2013, on audits of the Livestock Public Commitment. In Paraguay, 100% compliance was attained in the second third-party audit was conducted following the guidelines aligned with the International Finance Corporation (IFC) for monitoring purchases in the country. Monitoring of the indirect suppliers is the greatest challenge in this sector. It requires investment in the tools and technology, in addition to the engagement of the entire value chain to ensure complete cattle traceability. Minerva Foods began to test and integrating into its internal systems, Visipec a traceability and monitoring tool for indirect suppliers in the Amazon. The tool cross-references information from a property's Rural Environmental Registry (CAR, in portuguese) with public databases to track cattle movements during their production cycle. Visipec was developed by the National Wildlife Federation (NWF) in partnership with the Gibbs - Land-Use and Environment Lab at Wisconsin-Madison University. Early trials indicated more than 99% compliance with the good practice criteria defined by the Grupo de Trabalho de Fornecedores Indiretos (GTFI). Also, through the app SMGeo Prospec, Minerva Foods has taken the next step to engage the entire livestock chain by transferring its monitoring technology, which has ensured the Company the best traceability results among major players in the industry, to the hands of the rural producers. The app allows producers to monitor their own suppliers and map risks before carrying out any commercialization. The biggest hurdle in overcoming this challenge is due to the lack of access to or even the existence of official data for verification along other links of the value chain

Forest risk commodity

Timber products

Criteria

Zero gross deforestation/ no deforestation
No sourcing of illegally produced and/or traded forest risk commodities

Operational coverage

Direct operations and supply chain

% of total production/ consumption covered by commitment

100%

Cutoff date

2006

Commitment target date

2021-25

Please explain

Minerva Foods complies with the applicable laws of not purchasing wood products from illegal deforestation.

F5. Business strategy

F5.1

(F5.1) Are forests-related issues integrated into any aspects of your long-term strategic business plan, and if so how?

	Are forests-related issues integrated?	Long-term time horizon (years)	Please explain
Long-term business objectives	Yes, forests-related issues are integrated	11-15	The main objective of the long-term business is to guarantee access to markets that demand the best socio-environmental practices for the consumption of livestock products. In order to be successful, the Company established a sustainable purchasing policy for livestock products. Minerva Foods has among its Commitment to Sustainability objectives: i. Zero illegal deforestation across the entire South American supply chain with a target of 100% geographic monitoring of direct supplier farms in Paraguay by 2021 (goal completed), Colombia by 2023, Uruguay by 2025 and expansion to other South American countries until 2030; and ii. Development and implementation of a program to monitor indirect supplier farms for all countries operating in South America by 2030 with a goal of integrating the Visipecc tool into the internal monitoring system by 2021 (goal completed four months in advance) and development of application to verify indirect suppliers in partnership with Niceplanet Geotecnologia for Brazil in 2021 (SMGEO Prospec, goal completed) and other countries by 2030. The Company's internal sustainability agenda has three pillars: 'Dedication to the Planet', 'Prosperity of Our People' and 'Product Quality and Respect for Life'. Advances in this agenda ensure compliance with the strictest criteria for international customers. In the environmental pillar 'Dedication to the Planet', in recent years, the Company has extended its strict socio-environmental criteria for the preservation of the Amazon biome to the entire Brazilian territory through geospatial monitoring through the "SMGeo Direto" platform developed by Niceplanet Geotechnology, among criteria are the fight against deforestation, in addition to respect for indigenous lands and protected areas. In addition, Minerva Foods achieved all the goals established in its public commitment for the year 2021. In 2021, in Brazil and Paraguay, the purchase of cattle came 100% from geographically monitored farms, which ensured that all suppliers of livestock meet the criteria mentioned above.
Strategy for long-term objectives	Yes, forests-related issues are integrated	11-15	The Company has an internal cattle purchase policy that takes into account the socio-environmental criteria established by Minerva Foods. In addition, since 2009, Minerva Foods has made public commitments against slave and child labor and against deforestation. We invested in the development of a socio-environmental monitoring platform in partnership with Niceplanet, and we are leaders in Brazil and South America with the best results in supply chain monitoring. The geographic monitoring platform is directly integrated with the Company's cattle purchase system, that is, to proceed with a negotiation it is necessary to have the socio-environmental result of the property and it must be authorized for commercialization. For Brazil, environmental compliance are: embargoed areas list verification, labor compliance: consultation of the Register of Employers who subjected workers to slave-like conditions, issued by the Secretary of Labor of the Ministry of Economy and land regularization: consultation of the Rural Environmental Registry (CAR) and other land documents. It is also assessed Conservation Units and Indigenous Lands trespassing. Finally, for the zero illegal deforestation criterion, geospatial monitoring is applied, which is carried out through the CAR polygon
Financial planning	Yes, forests-related issues are integrated	11-15	Annually, the Company allocates budget to the Sustainability and Cattle Purchasing Departments to carry out implementation of projects to select sustainable cattle suppliers, such as the Supplier Assistance Service (SAF), geospatial monitoring and "Speaking of Livestock". In addition, Minerva Foods expects to invest BRL 1.5 billion by 2035 to fulfill its Commitment to Sustainability, which requires efforts and investments to neutralize greenhouse gas emissions in the value chain, combat deforestation illegal activity and develop the Renove program, that engages and provides technical support to ranchers to implement low-carbon practices on farms. In 2020, Minerva created its Innovation area focused on: i. advanced data analysis; ii. e-commerce/marketplace; and iii. venture capital platform. In 2021, the Company invested US\$ 4 million in The EVERY Company (formerly Clara Foods), a USA based startup of fermentation based protein products, free from animal protein. The startup's production process uses ingredients free of pesticides, antibiotics and preservatives, in addition to consuming less water and energy, in line with the Company's sustainability strategy, which is to continue accessing markets that want a product with less environmental impact. In addition, a joint venture was carried out with an initial investment of US\$ 5 million in Amyris, aiming to mostly develop products in the segment of recombinant proteins via fermentation processes, being totally animal free protein. The production processes also includes natural preservatives that allow significant changes in the beef storage and transport. Minerva Foods will have an initial 60% stake in the joint venture's total capital. The expectation is that the first initiative of this partnership will be ready to be commercialized as early as 2022, while another 4 products are still in the initial phase of research and development. In addition, in 2021, the acquisition, through a joint venture with Salic, of two slaughterhouses specializing in sheep in Australia was announced - expanding the Company's geographic diversification, its arbitrage capacity and entry into other branches of the protein market.

F6. Implementation

F6.1

(F6.1) Did you have any timebound and quantifiable targets for increasing sustainable production and/or consumption of your disclosed commodity(ies) that were active during the reporting year?

Yes

F6.1a

(F6.1a) Provide details of your timebound and quantifiable target(s) for increasing sustainable production and/or consumption of the disclosed commodity(ies), and progress made.

Target reference number

Target 1

Forest risk commodity

Cattle products

Type of target

Traceability

Description of target

Minerva Foods is committed to zero illegal deforestation throughout the South American supply chain, with the expansion of geographic monitoring of direct supply farms to all countries of operation in South America by 2030. By 2021 all purchases made in Brazil and Paraguay they had geographic monitoring (assessment and documentary verification)

Linked commitment

Zero net/gross deforestation

Traceability point

Rearing farm

Third-party certification scheme

<Not Applicable>

Start year

2020

Target year

2030

Quantitative metric

<Not Applicable>

Target (number)

<Not Applicable>

Target (%)

100

% of target achieved

64

Please explain

This target is relevant due to the risk of deforestation linked to cattle production in Brazil, Paraguay and other South American countries. Seeking a holistic view, evaluating the entire livestock production chain and highlighting actions that result in sustainable development, the objective was proposed to monitor the entire livestock production chain, covering all production cycles with the goal of zero illegal deforestation at all levels. in livestock production. With this objective in mind, Minerva Foods pioneered the geographic mapping of the entire Brazilian territory, extending the technology acquired to the Amazon Biome and applying it to the Cerrado, Pantanal and Atlantic Forest biomes. In addition, for Paraguay, the goal was to seek the monitoring of 100% of its suppliers by December 2021 (target achieved). Therefore, Minerva Foods already has 100% of all supplies from Brazil and Paraguay verified (thus, we achieved 64% of the target). The next goals are geographic monitoring in Colombia until 2023, for Uruguay 2025 and for other countries, the goal is to achieve monitoring until 2030. The published goal covers the entire Minerva production chain (breeding, rebreeding and fattening farms).

Target reference number

Target 2

Forest risk commodity

Cattle products

Type of target

Engagement with indirect suppliers

Description of target

The biggest challenge in agriculture is the traceability of the value chain, due to the lack of access or even lack of official data, investment costs in tools, but mainly in the engagement of the entire value chain to guarantee the complete traceability of cattle. In 2021, the company's goal was to integrate the VISIPEC system into its internal systems and to develop and launch the Prospec application. These systems have the objective of monitoring the value chain, in order to create a culture in Brazilian livestock based on attitudes towards sustainable development. By engaging and supporting Minerva Foods' direct suppliers in the application of sustainable practices in the livestock value chain through the analysis of socio-environmental information from their direct suppliers of breeding, rebreeding and/or fattening animals.

Linked commitment

Zero net/gross deforestation

Traceability point

<Not Applicable>

Third-party certification scheme

<Not Applicable>

Start year

2021

Target year

2021

Quantitative metric

<Not Applicable>

Target (number)

100

Target (%)

<Not Applicable>

% of target achieved

100

Please explain

This target is relevant due to the risk of deforestation linked to cattle production in South America. Seeking to maintain the same traceability quality standard already acquired by the Company, in 2021 it published in its Commitment to Sustainability the goal of integrating the VISIPEC tool into its internal systems (goal completed four months in advance), as well as the launch of the application Prospec, in partnership with Niceplanet Tecnologia. The main objective is to provide the daily technology transfer from Minerva Foods to the rancher so that he can consult and analyze, under the same criteria of the industry, the socio-environmental situation of their respective suppliers before making any purchase of animals for breeding, rebreeding and/or fatten.

Target reference number

Target 3

Forest risk commodity

Cattle products

Type of target

Engagement with direct suppliers

Description of target

Minerva Foods is committed to having 50% of its beef suppliers participate in the Renew Program, which aims to implement sustainable and low-carbon practices. This is due to the impact of the Brazilian agricultural sector on climate change. This goal is in line with our long-term goal of becoming "zero carbon" by 2035. With strategic partnerships, we are performing carbon balance analyzes on farms to identify which activities can be most effective in terms of reducing emissions. The program aims to support ranchers with technical assistance, access to finance and access to the voluntary carbon market.

Linked commitment

Zero net/gross deforestation

Traceability point

<Not Applicable>

Third-party certification scheme

<Not Applicable>

Start year

2021

Target year

2030

Quantitative metric

<Not Applicable>

Target (number)

<Not Applicable>

Target (%)

50

% of target achieved

0

Please explain

This goal is relevant given the high representation of the agricultural sector in Brazil's greenhouse gas emissions. In its first year of implementation, Renove worked on three projects to engage producers in low-carbon livestock farming, which involved 91 properties in 2021. The Program addresses the concern related to climate change mitigation in the agricultural sector in Latin America: land use, land use change and forestry (LULUCF). The measure of success is livestock production with reduced emissions. The first project, in partnership with EMBRAPA, measured net GHG emissions at 23 properties in the 2020/2021 season, with assessment tools and protocols based on the GHG Protocol and UNFCCC definitions. In this project, there is no implementation of practices, only technical study as a contribution to science and development, the results reports will be publicly available soon. In the LATAM Certification Project carried out in partnership with Imaflora it's calculated the carbon balance and emission intensity in 5 farms in each country of operation, Argentina, Brazil, Colombia, Paraguay and Uruguay, totaling 25 farms. The farms participating in this project will have their carbon footprint certified in 2022 with a seal granted by an independent organization, based on internationally recognized standards. Through annual audits, it will be possible to monitor agricultural activities, showing improvements on farms through the implementation of low-emission practices. In the Carbon Project, with Bioflitica Ambipar Environment, livestock suppliers are being invited to participate in the project (10 farms in the Paraguayan Chaco and 50 farms in Brazil), which aims to connect farms with the voluntary carbon market, green finance and training, for the expansion of low-carbon practices in livestock. In 2021, the project was structured in phases: Phase 1 – Diagnosis of farms to enter a carbon project, with field visits and partnership with the company's cattle purchase teams, which already have a direct relationship with cattle ranchers (phase in which we are currently); Phase 2 – Formalization of the participation of eligible farms in the project (Until March 2023); Phase 3 – Implementation of sustainable agricultural practices that capture or reduce carbon (As of March 2023); and Phase 4 – Generation of Carbon Credits (As of August 2023).

Target reference number

Target 1

Forest risk commodity

Timber products

Type of target

Other, please specify (Ton. vapor / TPA)

Description of target

For Brazilian operations, the target concerns the tons of steam produced by the fuel, usually firewood, divided by the tons of finished product. For the Steam indicator, the operational routines established in 2020 were maintained, with weekly monitoring of the indicator, and there was a 1.18% reduction in firewood consumption compared to 2020

Linked commitment

Other environmental commitments

Traceability point

<Not Applicable>

Third-party certification scheme

<Not Applicable>

Start year

2021

Target year

2021

Quantitative metric

Absolute number

Target (number)

0.13

Target (%)

<Not Applicable>

% of target achieved

100

Please explain

For Brazilian operations, the target concerns the tons of steam produced by the fuel, usually firewood, divided by the tons of finished product. For the Steam indicator, the operational routines established in 2020 were maintained, with weekly monitoring of the indicator, and there was a 1.18% reduction in firewood consumption compared to 2020

Target reference number

Target 2

Forest risk commodity

Timber products

Type of target

Other, please specify (Ton. vaper / TPA)

Description of target

For Minerva Foods LATAM operations, the target used is the tons of steam produced divided by the ton of finished product. The volume of firewood used is indicative of the efficiency of steam generation. Therefore, if there is excessive consumption and low steam production, the boilers and other equipment in the system undergo maintenance. The control of the volume of firewood is carried out by the warehouse sector. The reduction compared to 2020 was 3%.

Linked commitment

Other environmental commitments

Traceability point

<Not Applicable>

Third-party certification scheme

<Not Applicable>

Start year

2021

Target year

2021

Quantitative metric

Absolute number

Target (number)

0.15

Target (%)

<Not Applicable>

% of target achieved

100

Please explain

For units in Latin America (except Brazil) - LATAM - the stipulated target was 0.187 ton steam/TPA in 2021 and the average of targets achieved at the units was 0.155 ton steam/TPA.

Target reference number

Target 3

Forest risk commodity

Timber products

Type of target

Traceability

Description of target

The Company has the goal of having 100% of the raw material (wood) traced.

Linked commitment

Zero net/gross deforestation

Traceability point

Forest management unit

Third-party certification scheme

<Not Applicable>

Start year

2006

Target year

2021

Quantitative metric

<Not Applicable>

Target (number)

<Not Applicable>

Target (%)

100

% of target achieved

100

Please explain

This target is important due to the risk of deforestation due to commercial timber production in Brazil. The Company distributes fresh chilled and frozen meats in the domestic and foreign markets, products processed from cooked, roasted and grilled meats. In order for them to be produced in compliance with sanitary standards, part of the process needs hot water to maintain the sterilization of equipment and utensils, cooking of by-products, etc. Without steam generation, there is no way to guarantee sterilization and non-contamination of products. In its production units, the main fuel for the production of steam is logs. Exotic species such as eucalyptus are used, as well as native species according to the region. Before the wood purchase process, the relevant documentation is analyzed (DOF - Document of forest origin, and suppliers are duly regularized with IBAMA, in the case of mills in Brazil. And, in accordance with Forest Laws Law 422/73 of Paraguay and Law of Desarrollo Forestal No. 15,939 of

Uruguay) only after this verification is the purchase process concluded.

F6.2

(F6.2) Do you have traceability system(s) in place to track and monitor the origin of your disclosed commodity(ies)?

	Do you have system(s) in place?	Description of traceability system	Exclusions	Description of exclusion
Timber products	Yes	For Brazilian operations, Minerva Foods requires from all suppliers of native firewood the Document of Forest Origin (DOF), established by Ordinance MMA nº 253, of August 18, 2006, which constitutes a mandatory license for the transport and storage of forest products of native origin, including native charcoal. All wood extracted in the national territory must be certified and have the Document of Forest Origin (DOF), established by MMA Ordinance no. 253, of August 18, 2006. For suppliers of exotic species such as eucalyptus, rubber or orange trees, it is necessary to present a certificate of regularity from IBAMA. In Paraguay and Uruguay there is no consumption of native firewood and, with each purchase, the supply sector verifies the regularity of the material and the producer, through documents such as authorization to operate reforestation farms. Only regular cases are forwarded to checkout. In the case of Paraguay, the forest establishment must have the Environmental Impact Declaration (DIA), as established in Law 254/53 on the Environmental Impact Study and the resolutions that accompany it, said documentation is processed by MADES (Ministry of the Environment Environment and Sustainable Development). Only regular cases are forwarded to checkout. For the units in Paraguay, a consultation was carried out with the specialized team and it was found that only eucalyptus requires the supplier to be registered with the National Forestry Institute (Infona). For Minerva Foods units in Uruguay, government authorization documentation is required when cutting is carried out in indigenous areas or forest. Therefore, before purchase, the department responsible for supplies carries out this check. Forest Law 422/73 of Paraguay and Law on Forest Development No. 15.939 of Uruguay	Not applicable	<Not Applicable>
Palm oil	<Not Applicable >	<Not Applicable>	<Not Applicable>	<Not Applicable>
Cattle products	Yes	Minerva Foods utilizes the best available technology in its traceability practices to ensure compliance with environmental, labor and land tenure regulations within its portfolio of producers, with a focus on topics such as biodiversity and human rights. The Company pioneered a wider application of geospatial monitoring technology to 100% of direct suppliers in all biomes of Brazil (Amazon, Cerrado, Pantanal and Atlantic Forest). In 2021 the implementation of monitoring for 100% of purchases in Paraguay was concluded. Geospatial monitoring tracks the condition of the ranches, ensuring that cattle purchased by Minerva Foods don't originate from properties with illegally deforested areas, has any environmental embargoes ; trespasses indigenous lands and/or traditional communities and conservation units and are not associated with the use of slave-like labour. Should any non-conformity be detected of the socio-environmental criteria, the supplier is blocked until the situation is rectified. The Company maintains the best performance, in the third-party audit carried out by the Federal Public Prosecutors's Office in Pará, the main and most reliable tool for social and environmental verification of the Brazilian production chain. The results for the audit conducted in 2020 demonstrated that all of the 113,520 animals purchased originated from properties compliant with Termo de Ajustamento de Conduta (TAC) under the Federal Public Ministry.. The Company has maintained a 100% compliance on audits of the Livestock Public Commitment since 2013. In Paraguay, 100% compliance was attained in the second third-party audit was conducted following the guidelines aligned with the International Finance Corporation (IFC) for monitoring purchases in the country. Audit reports are public and can be found on the Minerva Foods website. As a pioneer in the industry, Minerva Foods began to test and integrate Visipec into its internal systems, which is a traceability and monitoring tool for indirect suppliers in the Amazon. Early trials indicated more than 99% compliance with the good practice criteria defined by GTFI.	Country/geographical area Specific supplier(s)	It already monitors 100% of suppliers in Brazil and Paraguay, with a monitoring target in Colombia in 2023, Uruguay in 2025 and expansion to other South American countries by 2030. It is worth noting that the process for traceability in Colombia and Argentina has already been started and for the year 2022 we will have the percentage of progress in the monitoring of each country. In addition, the Company will complete the Monitoring Program for indirect suppliers by 2030, a program that is already in effect in Brazil through the Visipec tool and the Prospec application (explained above) and will be expanded to other countries by the scheduled date.
Soy	<Not Applicable >	<Not Applicable>	<Not Applicable>	<Not Applicable>
Other - Rubber	<Not Applicable >	<Not Applicable>	<Not Applicable>	<Not Applicable>
Other - Cocoa	<Not Applicable >	<Not Applicable>	<Not Applicable>	<Not Applicable>
Other - Coffee	<Not Applicable >	<Not Applicable>	<Not Applicable>	<Not Applicable>

F6.2a

(F6.2a) Provide details on the level of traceability your organization has for its disclosed commodity(ies).

Forest risk commodity	Point to which commodity is traceable	% of total production/consumption volume traceable
Cattle products	Rearing farm	64
Timber products	Tree plantation	100

F6.3

(F6.3) Have you adopted any third-party certification scheme(s) for your disclosed commodity(ies)?

	Third-party certification scheme adopted?	% of total production and/or consumption volume certified
Timber products	No, we have not adopted any third-party certification schemes for this commodity	<Not Applicable>
Palm oil	<Not Applicable>	<Not Applicable>
Cattle products	Yes	14.5
Soy	<Not Applicable>	<Not Applicable>
Other - Rubber	<Not Applicable>	<Not Applicable>
Other - Cocoa	<Not Applicable>	<Not Applicable>
Other - Coffee	<Not Applicable>	<Not Applicable>

F6.3a

(F6.3a) Provide a detailed breakdown of the volume and percentage of your production and/or consumption by certification scheme.

Forest risk commodity

Cattle products

Third-party certification scheme

Other, please specify (Organic Certification and SISBOV)

Chain-of-custody model used

Not applicable

% of total production/consumption volume certified

14.5

Form of commodity

Beef

Volume of production/ consumption certified

517969

Metric for volume

Other, please specify (Slaughtered cattle heads)

Is this certified by more than one scheme?

No

Please explain

Specific international certifications for the production of organic meat are obtained for units such as Araguaína (TO), Barretos (SP), Janaúba (MG) and Palmeiras de Goiás (GO) in Brazil. When qualified, these units are subject to strict traceability controls that follow European Community Regulations No. 834/2007 and No. 889/2008 and the National Organic Program (NOP) of the United States. The factories in Paraguay and Uruguay are also certified to export organic meat. Animals are guaranteed zero use of antibiotics, growth hormones and animal feed products, as well as high animal welfare standards. The Brazilian System of Individual Identification of Bovines and Buffaloes (SISBOV) is the official system of individual identification of bovines and buffaloes, and the adhesion, by the rural producers, is voluntary, except when defined its obligatoriness in a specific normative act, or required by official health controls or programs. Currently, MAPA Normative Instruction No. 51, of October 1, 2018, approves, in the form of its Annex III, the operational standard that is used to support official Brazilian certification for countries that require individual traceability of cattle and buffalo, up to that there is approval by MAPA and the implementation of a traceability protocol of voluntary adhesion that deals with art. 7 of Decree No. 7,623, of November 22, 2011. European countries require this type of certification for meat originating in Brazil. In 2021, 14% of Brazilian cattle had traceability through the SISBOV system. Brazilian data (% in relation to global slaughter) – 1.5% Organic Certification and 13% cattle tracked by the SISBOV system.

F6.4

(F6.4) For your disclosed commodity(ies), do you have a system to control, monitor, or verify compliance with no conversion and/or no deforestation commitments?

	A system to control, monitor or verify compliance	Comment
Timber products	Yes, we have a system in place for our no conversion and/or deforestation commitments	<Not Applicable>
Palm oil	<Not Applicable>	<Not Applicable>
Cattle products	Yes, we have a system in place for our no conversion and/or deforestation commitments	<Not Applicable>
Soy	<Not Applicable>	<Not Applicable>
Other - Rubber	<Not Applicable>	<Not Applicable>
Other - Cocoa	<Not Applicable>	<Not Applicable>
Other - Coffee	<Not Applicable>	<Not Applicable>

F6.4a

(F6.4a) Provide details on the system, the approaches used to monitor compliance, the quantitative progress, and the non-compliance protocols, to implement your no conversion and/or deforestation commitment(s).

Forest risk commodity

Cattle products

Operational coverage

Direct operations
Supply chain

Description of control systems

Minerva Foods' internal methods and the use of external consultants to assess forest related risks includes strict criteria for the management of social and environmental risks in the process of formalizing contracts with 100% of suppliers. These criteria include i. supplier's document analysis; ii. consultation of public lists; iii. documents that prove supplier's land tenure. iv. Land-based monitoring (satellite image from the "SMGeo Direto" platform) - overlapping CAR polygons, environmental protection areas, embargoes and illegals, verifying overlap with Indigenous Lands and communities. Process with third-party audits and results on the company's website. In Paraguay we are pioneers in supplying farms monitoring, we carry out a selection of supplying farms for Geo analysis to allow us to know if they are identified as environmentally protected areas. We rely on Nice Planet's geomonitoring system to analyze the entire supply chain in the country based on publicly available data.

Monitoring and verification approach

Geospatial monitoring tool
Ground-based monitoring system
Community-based monitoring
First-party verification
Second-party verification

% of total volume in compliance

100%

% of total suppliers in compliance

100%

Response to supplier non-compliance

Retain & engage
Suspend & engage

Procedures to address and resolve non-compliance with suppliers

Developing time-bound targets and milestones to bring suppliers back into compliance
Providing information on appropriate actions that can be taken to address non-compliance
Re-integrating suppliers back into supply chain based on the successful and verifiable completion of activities

Please explain

Minerva Foods uses the best available technology in its traceability practices to ensure compliance with environmental, labor and land tenure regulations within its portfolio of producers, with a focus on topics such as biodiversity and human rights. With regard to the environment, the Company pioneered the wider application of geospatial monitoring technology to 100% of direct suppliers in all biomes of Brazil (Amazon, Cerrado, Pantanal and Atlantic Forest). In 2021 the implementation of monitoring for 100% of purchases in Paraguay was concluded. The objective is to achieve the same range of coverage for Colombia (2023), Uruguay (2025) and all other countries in which Minerva operates in South America (2030). Geospatial monitoring tracks the condition of the ranches, ensuring that cattle purchased by Minerva Foods do not originate from with illegally deforested areas; possess environmental embargoes ; are overlapping with indigenous lands and/or traditional communities and conservation units; and are not associated with the use of labor analogous to slavery. Should any non-conformity be detected of the socio-environmental criteria, the supplier is blocked until the situation is corrected. Third-party audits by the Federal Public Prosecutors's Office in Pará in 2020 demonstrated that of the totaled 113,520 animals purchased, 100% originated from properties that are in compliance with all criteria of the Termo de Ajustamento de Conduta (TAC) under the Federal Public Ministry

Forest risk commodity

Timber products

Operational coverage

Supply chain

Description of control systems

For the Brazilian operations, Minerva requires from all suppliers of native firewood the Document of Forest Origin (DOF), established by Ordinance MMA No. 253, of August 18, 2006, which constitutes a mandatory license for the transport and storage of forest products of native origin , including native charcoal. All wood extracted in national territory must be certified and must have the Document of Forest Origin (DOF), established by Ordinance MMA n°. 253, of August 18, 2006. For suppliers of exotic species such as eucalyptus, rubber or orange trees, it is necessary to present an IBAMA certificate of regularity. In Paraguay and Uruguay, there is no consumption of native firewood, and for each purchase, the supply sector verifies the regularity of the material and the producer, through documents such as authorization to exploit reforestation farms. Only regular cases are forwarded for finalizing the purchase.

Monitoring and verification approach

First-party verification
Second-party verification

% of total volume in compliance

100%

% of total suppliers in compliance

100%

Response to supplier non-compliance

Retain & engage
Suspend & engage

Procedures to address and resolve non-compliance with suppliers

Providing information on appropriate actions that can be taken to address non-compliance

Please explain

In Brazil operations, for the purchase of native wood, there is a document verification of all related purchases, while for the purchase of exotic wood, the documentation is consulted when registering the supplier. DOFs are analyzed on all firewood shipments that arrive at the company. For LATAM operations, it only follows if the suppliers comply with the document analysis. In case of non-compliance for both cases, suppliers are advised to seek regularization. In Paraguay, the submission of documents is monitored annually (sending documentation for payment of fees and the Certificate of Enrollment at Infona, where the type of firewood and the cubic meters authorized to be sold are established). In case of documental non-compliance, the supplier will not be able to supply any unit until its regularization.

(F6.5) For your disclosed commodity(ies), indicate if you collect data regarding your own compliance and/or the compliance of your suppliers with the Brazilian Forest Code.

	Do you collect data regarding compliance with the Brazilian Forest Code?	Please explain
Timber products	Yes, from suppliers	For the Brazilian operations, Minerva requires from all suppliers of native firewood the Document of Forest Origin (DOF), established by Ordinance MMA No. 253, of August 18, 2006, which constitutes a mandatory license for the transport and storage of forest products of native origin, including native charcoal. All wood extracted in national territory must be certified and must have the Document of Forest Origin (DOF), established by Ordinance MMA n°. 253, of August 18, 2006. For suppliers of exotic species such as eucalyptus, rubber or orange trees, it is necessary to present an IBAMA certificate of regularity.
Palm oil	<Not Applicable>	<Not Applicable>
Cattle products	Yes, from both suppliers and owned/managed land	Minerva Foods utilizes the best available technology in its traceability practices to ensure compliance with environmental, labor and land tenure regulations within its portfolio of producers, with a focus on topics such as biodiversity and human rights. With regard to the environment, the Company pioneered the wider application of geospatial monitoring technology to 100% of direct suppliers in all biomes of Brazil (Amazon, Cerrado, Pantanal and Atlantic Forest). In 2021 the implementation of monitoring for 100% of purchases in Paraguay was concluded. The goal is to achieve the same range of coverage for Colombia (2023), Uruguay (2025) and all other countries in which Minerva operates in South America (2030). Geospatial monitoring tracks the condition of the ranches, ensuring that cattle purchased by Minerva Foods do not originate from properties with illegally deforested areas; possess environmental embargoes; are overlapping with indigenous lands and/or traditional communities and conservation units; and are not associated with the use of slave-like labour. Audit of the monitoring system is conducted annually, with Minerva Foods achieving outstanding results. The results for the audit conducted in 2020 shows that 100% purchased animals came from properties that are in compliance with all criteria of the Termo de Ajustamento de Conduta (TAC) under the Federal Public Ministry. The Company has maintained a 100% compliance, since 2013, on audits of the Livestock Public Commitment. In Paraguay, 100% compliance was attained in the second third-party audit was conducted following the guidelines aligned with the International Finance Corporation (IFC) for monitoring purchases in the country. As a pioneer in the industry, Minerva Foods began to test and integrating into its internal systems, Visipec a traceability and monitoring tool for indirect suppliers in the Amazon. Early trials indicated more than 99% compliance with the good practice criteria defined by the Grupo de Trabalho de Fornecedores Indiretos (GTFI). Through the app SMGeo Prospec, Minerva Foods has taken the next step to engage the entire livestock chain by transferring its monitoring technology, which has ensured the Company the best traceability results among major players in the industry, to the hands of the rural producers.
Soy	<Not Applicable>	<Not Applicable>
Other - Rubber	<Not Applicable>	<Not Applicable>
Other - Cocoa	<Not Applicable>	<Not Applicable>
Other - Coffee	<Not Applicable>	<Not Applicable>

F6.5a

(F6.5a) For your disclosed commodity(ies), indicate which Key Performance Indicators (KPIs) you use to measure your own compliance with the Brazilian Forest Code and your performance against these indicator(s).

Forest risk commodity

Cattle products

KPIs

% of owned and/or managed properties registered on the Rural Environmental Registry (CAR) database, with active status

Performance against indicators

100%

Please explain

All the rigorous validation and monitoring criteria carried out at Minerva Foods' suppliers are also applicable to the farms owned and managed by the Company.

Forest risk commodity

Cattle products

KPIs

% of owned and/or managed properties with no gross deforestation after July 2008

Performance against indicators

100%

Please explain

All the rigorous validation and monitoring criteria carried out at Minerva Foods' suppliers are also applicable to the farms owned and managed by the Company.

F6.5b

(F6.5b) For your disclosed commodity(ies), indicate which Key Performance Indicators (KPIs) you use to measure the compliance of your suppliers with the Brazilian Forest Code and their performance against these indicator(s).

Forest risk commodity

Cattle products

KPIs

% of suppliers registered on the Rural Environmental Registry (CAR) database, with active status

Performance against indicators

100%

Please explain

Minerva Foods utilizes the best available technology in its traceability practices to ensure compliance with environmental, labor and land tenure regulations within its

portfolio of producers, with a focus on topics such as biodiversity and human rights. With regard to the environment, the Company pioneered the wider application of geospatial monitoring technology to 100% of direct suppliers in all biomes of Brazil (Amazon, Cerrado, Pantanal and Atlantic Forest). In 2021 the implementation of monitoring for 100% of purchases in Paraguay was concluded. The goal is to achieve the same range of coverage for Colombia (2023), Uruguay (2025) and all other countries in which Minerva operates in South America (2030). Geospatial monitoring tracks the condition of the ranches, ensuring that cattle purchased by Minerva Foods do not originate from properties with illegally deforested areas; possess environmental embargoes; are overlapping with indigenous lands and/or traditional communities and conservation units; and are not associated with the use of slave-like labour. Audit of the monitoring system is conducted annually, with Minerva Foods achieving outstanding results. The results for the audit conducted in 2020 shows that 100% purchased animals came from properties that are in compliance with all criteria of the Termo de Ajustamento de Conduta (TAC) under the Federal Public Ministry. The Company has maintained a 100% compliance, since 2013, on audits of the Livestock Public Commitment. In Paraguay, 100% compliance was attained in the second third-party audit was conducted following the guidelines aligned with the International Finance Corporation (IFC) for monitoring purchases in the country. As a pioneer in the industry, Minerva Foods began to test and integrating into its internal systems, Visipeca a traceability and monitoring tool for indirect suppliers in the Amazon. Early trials indicated more than 99% compliance with the good practice criteria defined by the Grupo de Trabalho de Fornecedores Indiretos (GTFI). Through the app SMGeo Prospec, Minerva Foods has taken the next step to engage the entire livestock chain by transferring its monitoring technology, which has ensured the Company the best traceability results among major players in the industry, to the hands of the rural producers.

Forest risk commodity

Cattle products

KPIs

% of suppliers with no gross deforestation after July 2008

Performance against indicators

100%

Please explain

One of the main highlights of the Company is in the area of the Supply Chain Traceability, with the geospatial mapping and monitoring of all of its cattle suppliers in the region, ensuring that 100% in its portfolio present environmental and labor compliance and land tenure. In the Amazon Biome, Minerva Foods also annually undergoes an independent audit of the Public Livestock Commitment. The Public Prosecutor's Office audit is done under supervision of the public authority and the data base is provided by the government, inputting a very restrictive audit procedure that mostly represents the commitment of the enrolled companies. In the 2017 and 2018 audits, Minerva was 100% and 99.7% complained, respectively. In 2021, the audit was carried out for the period from January 1, 2018 to June 30, 2019, however, the results have not yet been released by the Public Ministry. Additionally, the supply chain management system is annually audited by a third-party company since 2015, and all reports are publicly available on our website, thus Minerva achieves 100% compliance in accordance with the Public Commitment for Livestock. In Brazil, the Company monitored more than 11 million hectares throughout Brazil, which means that 100% of suppliers throughout the Brazilian territory have a cartographic map. In 2021, in Brazil, encompassing all Minerva Foods units, more than 374 suppliers were blocked due to non-compliance with social and environmental regulations. Of the total blockages, 28 suppliers were de-accredited according to the Employer Registry criteria that have subjected workers to conditions similar to slavery, 89 for being on the Ibama list, 228 for deforestation, 1 for overlapping with Indigenous Land, 3 for overlapping with quilombola areas. and 25 by overlapping Conservation Units. It is worth mentioning that Minerva Foods reinforces its support for the regularization of its suppliers with the aim of being reinserted in the company's supply chain.

Forest risk commodity

Cattle products

KPIs

Other, please specify (Percentage of purchases from suppliers free of overlap with protected areas)

Performance against indicators

100%

Please explain

Socio-environmental criterion established by the Company in all biomes (Amazon, Cerrado, Pantanal and Atlantic Forest), which is verified at each acquisition of raw material through geospatial monitoring. Suppliers in disagreement with this criterion and any others adopted by the Company are included in a blocking list, becoming unable for sale until the situation is regularized. In 2021, in Brazil, encompassing all Minerva Foods units, more than 374 suppliers were blocked due to non-compliance with social and environmental regulations. Of the total blockages, 28 suppliers were de-accredited according to the Employer Registry criteria that have subjected workers to conditions similar to slavery, 89 for being on the Ibama list, 228 for deforestation, 1 for overlapping with Indigenous Land, 3 for overlapping with quilombola areas. and 25 by overlapping Conservation Units. It is worth mentioning that Minerva Foods reinforces its support for the regularization of its suppliers with the aim of being reinserted in the company's supply chain.

Forest risk commodity

Timber products

KPIs

% of suppliers registered on the Rural Environmental Registry (CAR) database, with active status

Performance against indicators

100%

Please explain

Minerva requires from all suppliers of native firewood the Document of Forest Origin (DOF), established by Ordinance MMA No. 253, of August 18, 2006, which constitutes a mandatory license for the transport and storage of forest products of native origin, including native charcoal. All wood extracted in national territory must be certified and must have the Document of Forest Origin (DOF), established by Ordinance MMA n°. 253, of August 18, 2006. For suppliers of exotic species such as eucalyptus, rubber or orange trees, it is necessary to present an IBAMA certificate of regularity. In order for the supplier to obtain the document, it must be registered in the Rural Environmental Registry (CAR) database, so 100% of our native firewood suppliers have this record.

(F6.6) For your disclosed commodity(ies), indicate if you assess your own compliance and/or the compliance of your suppliers with forest regulations and/or mandatory standards.

	Assess legal compliance with forest regulations	Comment
Timber products	Yes, from suppliers	<Not Applicable>
Palm oil	<Not Applicable>	<Not Applicable>
Cattle products	Yes, from both suppliers and owned/managed land	<Not Applicable>
Soy	<Not Applicable>	<Not Applicable>
Other - Rubber	<Not Applicable>	<Not Applicable>
Other - Cocoa	<Not Applicable>	<Not Applicable>
Other - Coffee	<Not Applicable>	<Not Applicable>

F6.6a

(F6.6a) For your disclosed commodity(ies), indicate how you ensure legal compliance with forest regulations and/or mandatory standards.

Timber products

Procedure to ensure legal compliance

Minerva requires from all suppliers of native firewood the Document of Forest Origin (DOF), established by Ordinance MMA No. 253, of August 18, 2006, which constitutes a mandatory license for the transport and storage of forest products of native origin, including native charcoal. All wood extracted in national territory must be certified and must have the Document of Forest Origin (DOF), established by Ordinance MMA n°. 253, of August 18, 2006. For suppliers of exotic species such as eucalyptus, rubber or orange trees, it is necessary to present an IBAMA certificate of regularity. In Paraguay and Uruguay they require authorization for the extraction of firewood, and whenever there is renewal, the previous one must be replaced immediately. For transportation, cutting and sale of wood, it follows the internal legislation of each country.

Country/Area of origin

Brazil
Paraguay

Law and/or mandatory standard(s)

Forest Law - Paraguay
Other, please specify (Portaria MMA n° 253, de 18 de agosto de 2006 in Brazil; Uruguai - Ley de Desarrollo Forestal N° 15.939)

Comment

Brazilian legislation institutes a mandatory license for the transport and storage of forest products of native origin, including native charcoal. For Uruguay and Paraguay, there are laws governing forest plans. Therefore, for cutting, selling, buying, etc., it must follow the specifications of each law in each country, but in both countries the laws are clear and require that there is an environmental authorization for the cutting, transporting and selling of this wood.

Cattle products

Procedure to ensure legal compliance

Minerva Foods utilizes the best available technology in its traceability practices to ensure compliance with environmental, labor and land tenure regulations within its portfolio of producers, with a focus on topics such as biodiversity and human rights. With regard to the environment, the Company pioneered the wider application of geospatial monitoring technology to 100% of direct suppliers in all biomes of Brazil (Amazon, Cerrado, Pantanal and Atlantic Forest). In 2021 the implementation of monitoring for 100% of purchases in Paraguay was concluded. The objective is to achieve the same range of coverage for Colombia (2023), Uruguay (2025) and all other countries in which Minerva operates in South America (2030). Geospatial monitoring tracks the condition of the ranches, ensuring that cattle purchased by Minerva Foods do not originate from properties with illegally deforested areas; possess environmental embargoes (punitive measures issued by inspection and control agencies that stop production activities that degrade the environment); are overlapping with indigenous lands and/or traditional communities and conservation units; and are not associated with the use of labor analogous to slavery. In other words, this means that there is no illegal deforestation, use of labor analogous to slavery or child labor and environmental embargoes in the Minerva Foods supply chain. Should any non-conformity be detected of the socio-environmental criteria, the supplier is blocked until the situation is corrected.

Country/Area of origin

Brazil

Law and/or mandatory standard(s)

Brazilian Forest Code

Comment

Audit of the monitoring system is conducted annually, with Minerva Foods achieving outstanding results. The Company maintains the best performance, among major players in the market for the third consecutive year, in the third-party audit carried out by the Federal Public Prosecutors's Office in Pará, the main and most reliable tool for social and environmental verification of the Brazilian production chain. The results for the audit conducted in 2020 demonstrated that of the totaled 113,520 animals purchased, 100% originated from properties that are in compliance with all criteria of the Termo de Ajustamento de Conduta (TAC) under the Federal Public Ministry. The Company has maintained a 100% compliance, since 2013, on audits of the Livestock Public Commitment. In Paraguay, 100% compliance was attained in the second third-party audit was conducted following the guidelines aligned with the International Finance Corporation (IFC) for monitoring purchases in the country. As a pioneer in the industry, Minerva Foods began to test and integrating into its internal systems, Visipec a traceability and monitoring tool for indirect suppliers in the Amazon. The tool cross-references information from a property's Rural Environmental Registry (CAR, in portuguese) with public databases to track cattle movements during their production cycle. Early trials indicated more than 99% compliance with the good practice criteria defined by the Grupo de Trabalho de Fornecedores Indiretos (GTFI). Minerva Foods understands that joint efforts must be made to improve traceability in the value chain. Through the app SMGeo Prospec, Minerva Foods has taken the next step to engage the entire livestock chain by transferring its monitoring technology, which has ensured the Company the best traceability results among major players in the industry, to the hands of the rural producers. Minerva Foods, in partnership with Niceplanet Geotecnologia developers of the application, is making it easier for the rural producers throughout Brazil to verify compliance within their own supply chain. The app allows producers to monitor their own suppliers and map risks before carrying out any commercialization. The biggest hurdle in overcoming this challenge is due to the lack of access to or even the existence of official data for verification along other links of the value chain.

F6.7

(F6.7) Are you working with smallholders to support good agricultural practices and reduce deforestation and/or conversion of natural ecosystems?

	Are you working with smallholders?	Type of smallholder engagement approach	Smallholder engagement approach	Number of smallholders engaged	Please explain
Timber products	Yes, working with smallholders	Other	Other, please specify (Local supplier prioritization)	4	The supply area is always looking for business opportunities, often because it is close to the plant, the value of firewood decreases mainly due to transport costs, but the big problem is the volume of firewood that must be acquired, which can cause a small producer does not have the necessary quantity, so it is sought in another small producer or even, depending on the volume needed, further away from the unit
Palm oil	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Cattle products	Yes, working with smallholders	Capacity building	Offering on-site technical assistance and extension services Organizing capacity building events Supporting smallholders to clarify and secure land tenure	718	The main engagement strategy is to assist producers in good production practices, adding more value to livestock raw material and optimizing producer gains, in addition to offering technical assistance in the field and extension services. The Company launched the Carcass Efficiency Program (PEC), which in 2021 reached more than 718 producers. Working with ranchers interested in meeting the expectations of the demanding market for superior quality meats and adapting to the needs of the meat industry, the program seeks to identify the best carcass profiles for distribution to the main domestic and foreign markets, recognizing and encouraging the best production practices. The Program is an initiative created by Minerva Foods, in partnership with Phibro Animal Health and Biogéis Bago, which aims to help Brazilian livestock to reach a new level of efficiency, through the dissemination of good practices, integration of the various links in the chain production – cattle ranchers, the meat industry, the input and research industry – and support for ranchers to produce more and better. Another engagement practice is the "Trust Bond" relationship program, which shares technical material on the quality, production and development of sustainable livestock. At the end of 2021, a total of 3100 suppliers were registered in the mailing to which 30 technical articles were sent. In addition, the program also aims to engage its suppliers and ranchers through "Talking about Livestock", which provides lectures and meetings held to discuss topics relevant to the industry and producers, such as sustainability, inputs, meat quality, among others. In 2021, because of the pandemic, there was no Talking Livestock event. In addition, in 2021, Minerva Foods, together with Niceplanet Geotecnologia, launched the SMGeo Prospec application for rural producers in Brazil, giving them the possibility to consult the compliance of their supply chain through socio-environmental analyzes throughout the country. The company also launched the Renove Program, in which participating rural producers receive training on good agricultural practices, technical assistance in the implementation of these practices, such as the Crop-Livestock-Forest Integration (LPF) and the recovery of degraded pastures.
Soy	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Other - Rubber	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Other - Cocoa	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Other - Coffee	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>

F6.8

(F6.8) Are you working with your direct suppliers to support and improve their capacity to comply with your forests-related policies, commitments, and other requirements?

	Are you working with direct suppliers?	Type of direct supplier engagement approach	Direct supplier engagement approach	% of suppliers engaged	Please explain
Timber products	Yes, working with direct suppliers	Financial and commercial incentives	Purchase guarantee linked to best agricultural practices	100%	Minerva Foods only purchases wood from suppliers that comply with legislation and have good practices.
Palm oil	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Cattle products	Yes, working with direct suppliers	Capacity building	Offering on-site training and technical assistance Organizing capacity building events Investing in pilot projects	<10%	The main engagement strategy is to assist producers in addition to production practices, adding more value to raw livestock production and optimizing the producer's gains, supply and technical assistance in the field. "Trust Bonds" and "PEC": Minerva Foods also searches the market for best practices, impacts and technical knowledge and tools to reduce and manage the quality of specialty meats. A sustainable engagement practice is the "Trust Bond" relationship program, which shares technical material on livestock quality, production and development. By the end of 2021, a total of 3,100 suppliers had received 30 technical articles. In addition, the program also aims to involve its suppliers and ranchers through "Talking about Livestock", which offers lectures and meetings held to discuss topics relevant to the industry and sustainability, meat quality, among others. In 2021, because of the pandemic, there was no Talking Livestock event. The Carcass Efficiency Company (PEC) also promoted the Carcass Efficiency Program (PEC 2021), which in 2021 began the program of technical visits to the field where the program was carried out, that of the cattle ranchers' technicians and debates about strategies, with the objective of demonstrating to the rancher how he can improve the quality of his product and what practices can be carried out. There were more than 550 producers and approximately 240,000 head of cattle. The program took place in four units Renove Program: None of the producers participating in the Renove Program receive training on good agricultural practices, technical assistance in the implementation of these practices, such as Crop-Livestock-Forest Integration (LPF) and the recovery of degraded pastures. These activities are monitored through satellite images, soil analysis and on-site verification. The conservation of native forests, as well as reforestation, will be integrated into the program with the potential to generate carbon credits for rural producers. Engagement target of 50% of suppliers participating in the program. Advisory: In 2021, the Company entered into a partnership with IFC – International Financial Corporation, for the development of the "Advisory", in the project, which involves a pilot with 20 producers of animal welfare, increase in productivity, desire for socio-environmental determination, good practices, among others.
Soy	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Other - Rubber	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Other - Cocoa	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Other - Coffee	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>

F6.9

(F6.9) Are you working beyond your first-tier supplier(s) to manage and mitigate deforestation risks?

	Are you working beyond first tier?	Type of engagement approach with indirect suppliers	Indirect supplier engagement approach	Please explain
Timber products	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Palm oil	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Cattle products	Yes, working beyond first tier	Capacity building	Investing in pilot projects	With the understanding that efforts aimed at strengthening traceability along the chain must be done collectively, Minerva Foods launched the first mobile App designed for rural producers that enables them to monitor their own suppliers. SMGeo Prospec was developed together with Niceplanet Geotecnologia, enabling for socio-environmental analyses of the entire agribusiness production chain. This application enables Minerva Foods to provide its rural producers with access to the same technology it uses in its own analysis of suppliers. The same technology which has allowed the Company to obtain the best results in traceability among the main players in the industry. The database provides information about the compliance of landowners by cross-referencing the Ministry of Labor's so-called 'Dirty List of Slave Labor' and the lists of environmental embargoes. It also has the ability to display maps and satellite images to visualize the compliance of the property in relation to overlapping embargoed areas, areas of deforestation, indigenous lands, conservation units, and invasions in territories of traditional communities. By providing the SMGeo Prospec App to the production chain, Minerva Foods has encouraged its suppliers to monitor their own suppliers (ranch properties of indirect suppliers), thus decreasing the risks associated with animals originating from areas that do not comply with socio-environmental standards and laws.
Soy	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Other - Rubber	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Other - Cocoa	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Other - Coffee	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>

F6.10

(F6.10) Do you engage in landscape (including jurisdictional) approaches to progress shared sustainable land use goals?

	Do you engage in landscape/jurisdictional approaches?	Primary reason for not engaging in landscape and/or jurisdictional approaches	Please explain why your organization does not engage in landscape/jurisdictional approaches, and describe plans to engage in the future
Row 1	Yes, we engage in landscape/jurisdictional approaches	<Not Applicable>	<Not Applicable>

F6.10a

(F6.10a) Indicate the criteria you consider when prioritizing landscapes and jurisdictions for engagement in collaborative approaches to sustainable land use and provide an explanation.

	Criteria for prioritizing landscapes/jurisdictions for engagement	Please explain
Row 1	Company actions align with already established jurisdictional and/or landscape initiative priorities in area	Minerva Foods has initiatives involving engagement in landscape/jurisdictional approaches. One of them is the Public Livestock Commitment (CPP). On October 5, 2009, Minerva Foods took over the Public Livestock Commitment (CPP) with the Environmental Organization Greenpeace, in which it committed to monitoring the purchase of cattle from the Amazon Biome, thus guaranteeing that it would not be sold to farms that have some type of restriction. environment, subject to blocking, as well as with suppliers that are included in the black list, referring to the employment of labor in conditions analogous to slavery. Another initiative was the adherence to the Conduct Adjustment Term (TAC). Signed on July 7, 2009 with the Federal Public Ministry of Pará (MPF), the Conduct Adjustment Term (TAC), expanded the Company's actions in the sense of not trading with suppliers of cattle in the Amazon Biome that present socio-environmental irregularities, in particular, suppliers located in the State of Pará. Based on the precepts of the Federal Constitution of 1988, the TAC actively seeks to guarantee the protection of an ecologically balanced environment, guiding social and economic relations, especially with regard to the exploitation of natural resources. Aware of its responsibilities, Minerva Foods ratifies with the TAC the commitment not to compete with practices that, directly or indirectly, appear as environmental infractions or environmental crimes. Thus, acquiring, intermediating, selling and transporting products of animal or plant origin from irregular areas, especially those located in Pará, are intolerable and totally unacceptable conduct by the Company.

F6.10b

(F6.10b) Provide details of your engagement with landscape/jurisdictional approaches to sustainable land use during the reporting year.

Country/Area

Brazil

Name of jurisdiction or landscape area

Pará

Is the landscape defined by administrative boundaries of sub-national governments and does the approach have active government involvement?

Yes, the landscape is defined by administrative boundaries and the approach has active government involvement

Brief description of landscape/ jurisdictional approach

Conduct Adjustment Term (TAC). Signed on July 7, 2009 with the Federal Public Ministry of Pará (MPF), the Conduct Adjustment Term (TAC), expanded the Company's actions in the sense of not trading with suppliers of cattle in the Amazon Biome that present socio-environmental irregularities, in particular, suppliers located in the State of Pará. Based on the precepts of the Federal Constitution of 1988, the TAC actively seeks to guarantee the protection of an ecologically balanced environment, guiding social and economic relations, especially with regard to the exploitation of natural resources. Aware of its responsibilities, Minerva Foods ratifies with the TAC the commitment not to compete with practices that, directly or indirectly, appear as environmental infractions or environmental crimes. Thus, acquiring, intermediating, selling and transporting products of animal or plant origin from irregular areas, especially those located in Pará, are intolerable and totally unacceptable conduct by the Company.

Forest risk commodities relevant to this landscape/jurisdictional approach

Cattle products

Type of engagement

Partner: Shared responsibility in the implementation of multiple goals

Supporter: Implement activities to support at least one goal

Description of engagement

The company purchases cattle in compliance with social-environmental criteria, while supporting the authorities regarding the auditing process.

Goals supported by engagement

Decreased ecosystem degradation rate

Avoided deforestation/conversion of other natural ecosystems

Company actions supporting approach

Collaborate on land use change monitoring in the landscape/jurisdiction

Help establish effective mechanisms for undertaking human rights due diligence, risk management, monitoring, verification, and grievance resolution

Share spatial data and land management plans with other stakeholders in the landscape/jurisdiction

Share information on supplier non-compliance, supply chain mapping and traceability with other stakeholders in the landscape/jurisdiction

Support producers, producer groups, and primary processors to improve agricultural practices and technologies

Implementation partner(s)

Federal Public Ministry of Pará (MPF)

Engagement start year

2009

Engagement end year

Not defined

Total investment over the project period (currency)

0

Details of your investment

We couldn't precise the expense on initiative because of our systematic approach in the region.

Type of assessment framework

Commodities Jurisdictions Approach

Is progress monitored and publicly reported on?

Yes, progress is monitored and publicly reported on

State the achievements of your engagement so far, and how progress is monitored

The Company maintains the best performance, among major players in the market for the third consecutive year, in the third-party audit carried out by the Federal Public Prosecutors's Office in Pará, the main and most reliable tool for social and environmental verification of the Brazilian production chain. The results for the audit conducted in 2020 demonstrated that of the totaled 113,520 animals purchased, 100% originated from properties that are in compliance with all criteria of the Termo de Ajustamento de Conduta (TAC) under the Federal Public Ministry.

F6.11

(F6.11) Do you participate in any other external activities and/or initiatives to promote the implementation of your forests-related policies and commitments?

Forest risk commodity

Cattle products

Do you participate in activities/initiatives?

Yes

Activities

Involved in multi-partnership or stakeholder initiatives

Country/Area

Brazil

Subnational area

Not applicable

Initiatives

UN Global Compact

Global Roundtable for Sustainable Beef (GRSB)

Brazilian Roundtable on Sustainable Livestock (GTSP)

Other, please specify (Pacto Nacional pela Erradicação do Trabalho Escravo; Emerging Markets Investor Alliance (EMIA); Responsible Leather Round Table (RLRT);

Grupo de Trabalho de Fornecedores Indiretos (GTFI); Mesa Paraguaya de Carne Sostenible (MPCS); and others)

Please explain

Minerva Foods is involved in partnerships and coalitions aimed at addressing climate change, combating deforestation and driving sustainability in the sector, including the United Nations Global Compact, to which in 2021 it became a signatory. In addition to the Company's commitment to the Sustainable Development Goals (SDGs), adherence to the Pact formalized attention to the ten principles that address anti-corruption, labor relations, environment and human rights issues. In addition, the company participates as a member of the Global Table for Sustainable Beef, the Global Roundtable for Sustainable Beef (GRSB), made up of experts, academics and large companies from four continents, with the objective of sharing management practices. maintain a constructive dialogue on global industry paths and strengthen beef within sustainable best practices. The Company is also part of the Sustainable Livestock Working Group (GTSP), contributing to the mission of promoting the sustainable development of Brazilian livestock by solving the challenges present in the sector. In addition, Minerva Foods participates in regional tables in Brazil, Colombia and Paraguay, the Alliance of Investors for Emerging Markets, the Indirect Suppliers Working Group, the Monitoring Protocol for Amazon Cattle Suppliers – in partnership with the Federal Public Ministry and Imaflora. It has also signed important commitments focused on supply chain management and human rights in South America, for example, the Public Livestock Commitment, the Conduct Adjustment Term (TAC) with the Public Ministry of Pará, in addition to the National Pact. Brazilian for the eradication of slave labor and the Monitoring Protocol for Cattle Suppliers in the Amazon, which aims to meet the criteria already established through the commitments signed and harmonize the implementation for all signatories

Forest risk commodity

Timber products

Do you participate in activities/initiatives?

Yes

Activities

Involved in multi-partnership or stakeholder initiatives

Country/Area

Brazil

Subnational area

Not applicable

Initiatives

UN Global Compact

Other, please specify (Pacto Nacional pela Erradicação do Trabalho Escravo; Emerging Markets Investor Alliance (EMIA); Responsible Leather Round Table (RLRT);

Grupo de Trabalho de Fornecedores Indiretos (GTFI); Mesa Paraguaya de Carne Sostenible (MPCS); and others)

Please explain

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F6.12

(F6.12) Is your organization supporting or implementing project(s) focused on ecosystem restoration and protection?

Yes

F6.12a

(F6.12a) Provide details on your project(s), including the extent, duration, and monitoring frequency. Please specify any measured outcome(s).

Project reference

Project 1

Project type

Reforestation

Primary motivation

Voluntary

Description of project

Minerva Foods is voluntarily developing the Renove program. In which rural producers participating in the Renove Program receive training on good agricultural practices, technical assistance in the implementation of these practices, such as the Crop-Livestock-Forest Integration (ILPF) and the recovery of degraded pastures. These activities are monitored through satellite images, soil analysis and on-site verification. The conservation of native forests, as well as reforestation will be integrated into the program with the potential to generate carbon credits for rural producers.

Start year

2021

Target year

2030

Project area to date (Hectares)

602102

Project area in the target year (Hectares)

3000000

Country/Area

Brazil

Latitude

-34.37

Longitude

-54.09

Monitoring frequency

Six-monthly or more frequently

Measured outcomes to date

Carbon sequestration

Soil

Other, please specify (• Participation agreements signed in the project; • Two technical-scientific reports prepared; • 5 farms (Uruguay) with their carbon footprint certified and with an Emissions Reduction Plan.)

Please explain

Cattle ranching is essential to the world's economy and food, in addition to contributing to the development of local communities. Minerva believes it is possible to keep meat production aligned with the goals of reducing environmental impacts, thereby developing initiatives that involve the entire production chain and aim to mitigate environmental impact. For this reason, in 2021, Minerva created the Renove Program. The purpose is to promote engagement and joint action with rural producers in the adoption of good agricultural and cattle ranching practices that increase productivity and income, in addition to benefiting the environment through low carbon emissions and sustainable intensification of cattle ranching. Renove is based on Training, Green Finance, and Technical and Institutional Partnerships. Renove was implemented in all countries in which Minerva operates in Latin America, engaging a total of 91 farms, and developing projects in partnership with strategic institutions working on 3 different projects. The MRV Agro Project, in partnership with Embrapa (Brazilian Agricultural Research Corporation), aimed at developing a Measurement, Reporting and Verification (MRV) protocol for Agro; the AgroTag Carbon application, for georeferencing data and calculating the inventory of greenhouse gas emissions from farms; and , adapting and updating the GHG Protocol for proper use in feedlots. In the project, the carbon balance of 23 ranches in Brazil was calculated (period from July/20 to June/21). The participating ranches supplied 12% of the volume of cattle purchased in Brazil in 2021. The initial results found that 22 ranches emit less than the national average for livestock activity and from that 11 are actually carbon negative. The LATAM Certification Project, carried out in partnership with Imaflora (Institute for Forest and Agricultural Management and Certification), calculated the carbon balance and emissions intensity of 5 ranches within each country of operation in Latin American,, 490,000hectares and 232,000 heads of cattle. It has been estimated that the emissions intensity in global beef production (scientific articles) is 19.9 tons of CO₂e per ton of meat produced. The 25 ranches supplying Minerva Foods stand at an average of 44% below this value.

F7. Verification

F7.1

(F7.1) Do you verify any forests information reported in your CDP disclosure?

Yes

F7.1a

(F7.1a) Which data points within your CDP disclosure have been verified, and which standards were used?

Disclosure module

F2. Procedures

Data points verified

Minerva Foods is a signatory to the Public Livestock Commitment, signed in October 2009, in which minimum criteria were established for the purchase of cattle and beef products on an industrial scale in the Amazon biome. These criteria include rejections of the invasion of indigenous lands and protected areas, modern slavery labor, land grabbing and violence in the countryside, zero deforestation and the adoption of a monitorable, verifiable and reportable production traceability system. In 2020, the Amazon Supplier Monitoring Protocol was also launched, which aims to harmonize all commitments and TACs assumed by the various market players. All criteria proposed in the Protocol are already implemented by the Company.

Verification standard

The audit work is carried out in accordance with the NBC TSC 4400 - Work procedures previously agreed on accounting breaches, approved by Resolution CFC No. 1270/10.

Please explain

Audit of the monitoring system is conducted annually, with Minerva Foods achieving outstanding results. The Company maintains the best performance, among major players in the market for the third consecutive year, in the third-party audit carried out by the Federal Public Prosecutors's Office in Pará, the main and most reliable tool for social and environmental verification of the Brazilian production chain. The results for the audit conducted in 2021 demonstrated that of the totaled 113,520 animals purchased, 100% originated from properties that are in compliance with all criteria of the Termo de Ajustamento de Conduta (TAC) under the Federal Public Ministry. This took into account transactions carried out by Minerva Foods between January 2018 and June 2019. The Company has maintained a 100% compliance, since 2013, on audits of the Livestock Public Commitment. In Paraguay, 100% compliance was attained in the second third-party audit was conducted following the guidelines aligned with the International Finance Corporation (IFC) for monitoring purchases in the country. Audit reports are public and can be accessed on the Minerva Foods website

F8. Barriers and challenges

F8.1

(F8.1) Describe the key barriers or challenges to eliminating deforestation and/or conversion of other natural ecosystems from your direct operations or from other parts of your value chain.

Forest risk commodity

Cattle products

Coverage

Supply chain

Primary barrier/challenge type

Lack of regulatory control and enforcement from local governments

Comment

The biggest challenge to advance on deforestation termination is the lack of access to official data to verify other levels of the value chain. In addition, monitoring indirect supplier farms requires not only investment in tools, but also the engagement of the entire value chain to ensure complete traceability of cattle. It is necessary to have mechanisms to track the animal individually, as is done in Uruguay, Australia, New Zealand. The Company believes that the public authorities have a fundamental role to play in inspections to intensify the identification of environmental crimes and the respective punishments in order to enforce the applicable laws that contribute to the conservation of forests. An important issue that requires government action is related to the control of indirect suppliers. It is worth mentioning that the legal competence for the management of Animal Transit Guides (GTAs) is the responsibility of the Ministry of Agriculture (MAPA) through the Federal Inspection Service (SIF), which is present in all Minerva Foods factories. In order for the GTAs to be fulfilled and also to be able to verify indirect suppliers, it is essential that industries have unrestricted access to all GTAs issued and, therefore, MAPA must act immediately to develop a mechanism or public platform that allows access to this information.

Forest risk commodity

Cattle products

Coverage

Supply chain

Primary barrier/challenge type

Value chain complexity

Comment

One of the major challenges in the sector is the monitoring of indirect suppliers, due to the lack of a system that allows full traceability of cattle due to the absence of reliable data to accurately determine the number of indirect suppliers in Brazil. Up to date, any monitoring initiative of indirect supplier farms in Brazil is not part of MRV's certification processes, so it is understood that this information is not being monitored, reported or certified. The legal documentation for the transport of animals is the Animal Transit Guide (GTA), administered by the Ministry of Agriculture (MAPA) through the Federal Inspection Service (SIF), which is present in all Minerva slaughterhouses through a representative. Minerva Foods, like any other industry inspected by the SIF, does not have full access to these GTAs, thus limiting itself in its means of verifying and tracking indirect supply farms through the use of the GTAs in the system. To advance indirect supplier monitoring, Minerva is pioneering verification of its indirect sourcing farms through a partnership with the National Wildlife Federation and Wisconsin-Madison University through the Visipec test. This tool, which is complementary to the Companies' monitoring systems, will help develop a mapping of indirect suppliers and guide viable action plans to address deforestation risks on Minerva Foods' indirect supply farms. The preliminary results of the Visipec tool were very positive, attesting to approximately 98.4% of compliance with the criteria of good practices defined by the working group of indirect suppliers (GTFI). In 2021, Minerva Foods completed the integration of the VISIPEC tool into its internal systems, four months ahead of the stipulated target. Another action related to this topic was the development and implementation in October 2021 of the SMGeo Prospec application to verify indirect suppliers in partnership with Niceplanet Geotecnologia. The purpose of this application is to provide the transfer of technology used in the day to day of Minerva Foods to livestock farmers so that they can consult and analyze, under the same criteria for purchasing cattle adopted by the industry, the social and environmental aspects of the situation of their respective suppliers. before making any purchase of animals for reproduction, breeding and/or fattening

Forest risk commodity

Cattle products

Coverage

Supply chain

Primary barrier/challenge type

Value chain complexity

Comment

There are no accessible and reliable data and statistics on the entire cattle traceability chain to determine the number of indirect suppliers in Brazil. Currently, any indirect supplier control initiative is not aligned with MRV certified processes, which means that it is not monitorable, reportable and attestable. It should be noted that the legal competence for the management of Animal Transit Guides (GTAs) is the responsibility of the Ministry of Agriculture (MAPA) through the Federal Inspection Service (SIF), present on all Minerva Foods websites. Minerva Foods, like any other industry inspected by the SIF, does not have full accessibility to the Animal Transit Guide system and, therefore, does not have adequate means of verifying and tracking indirect suppliers through GTAs.

Forest risk commodity

Cattle products

Coverage

Supply chain

Primary barrier/challenge type

Land tenure and insecure property rights issues in sourcing regions

Comment

For the whole of Brazil, the criteria for verifying land tenure are applied: consultation of the Rural Environmental Registry (CAR) and other land documents. All documents are subjected to a rigorous analysis by the sector of the Centro de Cadastro Único - CUC, which is responsible for the critical analysis and validation of the data.

Forest risk commodity

Cattle products

Coverage

Supply chain

Primary barrier/challenge type

Cost of sustainably produced/certified products

Comment

There are high transaction costs to access certified carbon markets with fees for project registration, monitoring, verification, auditing and credit issuance. While productivity gains from implementing sustainable practices can provide some return on the large investments required to implement such practices, there are costs involved. Another point is the high cost of monitoring cattle to maintain constant traceability of the animal, since in some countries a historic from the 10 months of the animal's life is required. Since the cost is high and the financial return on selling the animal is low, the number of animals tracked from a young age has been decreasing.

Forest risk commodity

Timber products

Coverage

Supply chain

Primary barrier/challenge type

Value chain complexity

Comment

The availability of non-native wood in the northern region for our Rolim de Moura and Araguaína units is scarce, making the non-consumption of native wood a risk for operations.

F8.2

(F8.2) Describe the main measures that would improve your organization's ability to manage its exposure to deforestation and/or conversion of other natural ecosystems.

Forest risk commodity

Cattle products

Coverage

Direct operations
Supply chain

Main measure

Greater supplier awareness/engagement

Comment

Upon the pillar Dedication to the Planet, the Company's focus is on acting now to prevent the worst effects of climate change, while supporting rural producers in the adoption of practices that sequester and store carbon, protect biodiversity, and increase resilience. To launch its efforts, Minerva Foods announced its Commitment to Sustainability back in 2021, detailing initiatives focused on three key areas to achieve net zero emissions by 2035. The first is related to the environmental efficiency of its operations, the second aims to combat illegal deforestation, and the third is the Renove Program, which provides support to the production chain in the adoption of low carbon emission practices. Monitoring of the indirect suppliers is the greatest challenge in this sector. It requires investment in the tools and technology, in addition to the engagement of the entire value chain to ensure complete cattle traceability. Minerva Foods began to test and integrating into its internal systems, Visipec a traceability and monitoring tool for indirect suppliers in the Amazon. The tool cross-references information from a property's Rural Environmental Registry (CAR) with public databases to track cattle movements during their production cycle. Visipec was developed by the National Wildlife Federation (NWF) in partnership with the Gibbs - Land-Use and Environment Lab at Wisconsin-Madison University. It is currently managed by the NWF. Early trials indicated more than 99% compliance with the good practice criteria defined by the Grupo de Trabalho de Fornecedores Indiretos (GTFI). Also, by the app SMGeo Prospec, Minerva Foods has taken the next step to engage the entire livestock chain by transferring its monitoring technology, which has ensured the Company the best traceability results among major players in the industry, to the hands of the rural producers. Minerva Foods, in partnership with Niceplanet Geotecnologia developers of the application, is making it easier for the rural producers throughout Brazil to verify compliance within their own supply chain. The app allows producers to monitor their own suppliers and map risks before carrying out any commercialization. The biggest hurdle in overcoming this challenge is due to the lack of access to or even the existence of official data for verification along other links of the value chain

Forest risk commodity

Cattle products

Coverage

Supply chain

Main measure

Increased demand for certified products

Comment

Higher prices on certified products would allow for the development of certification programs. The costs involved in these programs are often high and it is currently difficult to guarantee any return on investment from farmers without clear signaling of prices and demand for such commodities.

Forest risk commodity

Cattle products

Coverage

Supply chain

Main measure

Price premium for certified materials

Comment

Clear pricing signals for certified products enable investment in supply chain certification. The investment required for many certification schemes is high and often with no guaranteed financial return.

Forest risk commodity

Cattle products

Coverage

Supply chain

Main measure

Improvement in data collection and quality

Comment

There is currently no public access to some data that is crucial to improving monitoring of supply chains beyond the direct supplier. Access to this data can allow for much more robust monitoring of the entire supply chain, allowing deforestation to be reduced and reputational risk reduced.

Forest risk commodity

Timber products

Coverage

Supply chain

Main measure

Development of certification and sustainability standards across entire landscapes/jurisdictions

Comment

The best way to help the organization to improve the market environment is by developing certifications in every landscape we operate.

F17 Signoff

F-FI

(F-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

F17.1

(F17.1) Provide the following information for the person that has signed off (approved) your CDP forests response.

	Job Title	Corresponding job category
Row 1	Chief Executive Officer	Chief Executive Officer (CEO)

SF. Supply chain module

SF0.1

(SF0.1) What is your organization's annual revenue for the reporting period?

	Annual revenue
Row 1	26900000000

SF1.1

(SF1.1) In F6.3 you were asked "Have you adopted any third-party certification scheme(s) for your disclosed commodity(ies)? Indicate the volume and percentage of your certified production and/or consumption". Can you also indicate, for each of your disclosed commodity(ies), the percentage of certified volume sold to each requesting CDP supply chain member?

No

SF1.1b

(SF1.1b) Why can you not indicate the percentage of certified volume sold to each of your requesting CDP supply chain members? Describe any future plans for adopting and communicating levels of certification to requesting members.

Requesting member

Restaurant Brands International

Forest risk commodity

Cattle products

Primary reason

Judged to be unimportant

Please explain

We do not sell certified beef to this client.

SF2.1

(SF2.1) Please propose any mutually beneficial forests-related projects you could collaborate on with specific CDP supply chain members.

Requesting member

Restaurant Brands International

Commodity related to the project

Cattle products

Category of project

Traceability and transparency

Type of project

Improvement of existing traceability system

Estimated timeframe for realization of benefits to customer

4-6 years

Details of project

Mapping by invoice of supplier farms and verification of regulatory compliance

Projected outcome

Rastreabilidade e transparência

Requesting member

Restaurant Brands International

Commodity related to the project

Cattle products

Category of project

Certification

Type of project

Other certification projects, please specify (Carbon Neutral Meat)

Estimated timeframe for realization of benefits to customer

1-3 years

Details of project

Mapping of supplier farms and neutralization through the Carbon Credit of the meat purchased

Projected outcome

Carbon neutral meat consumption

SF2.2

(SF2.2) Have requests or initiatives by CDP supply chain members prompted your organization to take organizational-level action to reduce or remove deforestation/forest degradation from your operations or your supply chain?

No

SF3.1

(SF3.1) For your disclosed commodity(ies), do you estimate the GHG emission reductions and/or removals from land use and land use change that have occurred in your direct operations and/or supply chain?

Timber products

Estimate GHG emissions and removals from land use and land use change

No, but plan to do so in the next two years

Please explain

At the end of 2021, we started the Scope 3 GHG emissions mapping project. It is not yet possible to estimate the emissions for this item

Cattle products

Estimate GHG emissions and removals from land use and land use change

No, but plan to do so in the next two years

Please explain

Projeto Remove aims to implement sustainable practices in partner farms - Very satisfactory results from pilot projects

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I understand that my response will be shared with all requesting stakeholders	Response permission
Please select your submission options	Yes	Public

Please confirm below

I have read and accept the applicable Terms