SUSTAINABILITY REPORT 2022

LIASA

CONTENTS

STATEMENT FROM THE CEO

(GRI 2-22)

A company in full transformation. This is how LIASA's current moment can be best described. A silicon metal producer hailing from Minas Gerais, situated in Pirapora, in the northern region of the state, approaching its 57th anniversary in 2023.

Our pioneering use of charcoal as a bioreducer for the production of silicon metal, an innovation developed in the 1970s, has changed the history of the ferroalloy industry in Brazil. The adoption of a bioreducer reflects our commitment to utilizing a sustainable input sourced from planted forests that help us reduce CO_2 from the atmosphere in excess of our emissions. As a consequence, we proudly coined the term "**Green Silicon**" to describe our eco-friendly output, produced in compliance with ecological standards and earmarked for industries crucial to sustainable development, such as the solar panel industry, microprocessors, and electric car batteries.

In 2022, we attained our company's best-ever results, with an EBITDA (or operating cash generation) of approximately 48%, which is an extraordinary accomplishment within the industry. This performance resulted from several factors, namely the economy's rebound following the critical phase of the COVID-19 pandemic, a more favorable exchange rate for Brazilian exporting firms, and the transformative changes currently underway.

The transformation we undertook during the pandemic's first two years was a bold and meticulous endeavor. Our decision to embrace vertical integration has given our plant greater autonomy in key areas like bioreduction (using charcoal from planted forests), chips, and quartz, which are our primary raw materials. Additionally, we have invested in an entirely self-produced solar energy source, which will provide all our electricity needs by 2023 – in a clean and sustainable manner.

We have also invested roughly BRL 500 million in installing dedusting filters, which allow us to contain particulate emissions, and in developing projects to modernize the plant. As a result, we will gain scale and efficiency, leading to greater productivity and improved sustainable use of natural resources, bioreducer (charcoal), chips, and electricity.

In addition to these changes, we have decided to fully embrace the **ESG Agenda** which focuses on sustainability and the goals related to the environmental, social, and governance aspects of the business.

Regarding governance, we have made progress in decentralizing decision-making through the creation of (i) several committees to deliberate on strategic issues, and (ii) five executive boards: Industrial, Energy, Sales, Legal, Managing, Finance and ESG.

Since 2021, we have achieved faster progress than expected on all fronts. In 2022, we received the ISO 14001:2015 certification for environmental management; earned a silver seal from the GHG Protocol, which evaluates our greenhouse gas (GHG) emissions inventory that contributes to global warming; reached the gold category on EcoVadis, a platform acknowledged for its strict evaluation of corporate social responsibility; and received recognition as an excellent workplace from GPTW Brazil (Great Place to Work Brazil).

To supplement our previous accomplishments, we launched "Ligas da Vida", a social initiative aimed at children and teenagers. During after-school hours, boys and girls receive tutoring, participate in sports, attend music and literature classes, cultivate gardens, and engage in theater activities. Ligas has plans to acquire new facilities, giving us the opportunity to assist a larger group of growing youths.

The year 2023 has been full of challenges. These encompass humanitarian, economic, and environmental consequences of the Russia-Ukraine conflict in a world still reeling from the pandemic. The result is anticipated inflationary pressures that necessitate our implementation of strict cost management.

Nonetheless, our implemented strategy, coupled with the commitment to integrity and long-term vision, will improve our resilience, responsiveness, and consistent growth.

Our first Sustainability Report details the transformations and results we have achieved in 2022, which are the outcome of our history and future vision.

Enjoy your reading!

FERNANDO CARAM PATRUS
CEO

ABOUT THE REPORT

(GRI 2-3)

This is LIASA's inaugural year of systematically organizing its economic, social, environmental, and governance outcomes into a structured annual report, anchored in 2022. Alongside the sustainability strategy, the report features performance, initiatives, and challenges from January 1 to December 31, 2022.

The document adheres to the **Global Reporting Initiative (GRI)** standards to help the company enhance its ESG management in future cycles.

The material topics addressed in this report were selected based on their relevance to LIASA and its stakeholders. For further information on the process used to identify these topics, please refer to the **Material Topics** section. To enhance readability and understanding, we have provided a glossary of technical terms and acronyms.

KPMG Brazil audited the financial data reported, and S&P carried out the risk assessment. To ensure a comprehensive report, we collaborate with the heads of the company's primary areas and the ESG Committee, established in 2022 with senior management members and representatives from Communication, Environment, Legal, Quality, and New Business departments. Additionally, the information provided has been meticulously scrutinized and confirmed by the CEO, the COO, and the Managing, Finance and ESG Director.

Questions and additional information regarding this report can be sent via email to ri@liasa.com.br.

GLOSSARY

EBITIDA: Earnings Before Interest, Taxes, Depreciation and Amortization is a financial indicator that represents a company's operating cash generation, disregarding financial and tax impacts. It corresponds to the net income before income and social contribution taxes, depreciation and amortization expenses and the financial result.

ESG: ESG, which stands for Environmental, Social, and Governance, focuses on sustainability across these three primary axes. Through ESG criteria, businesses are analyzed based on their contribution and performance in relation to these axes, and the values that the company must deliver to society are established.

EcoVadis: EcoVadis' Corporate Social Responsibility (CSR) methodology assesses corporate management systems based on 21 criteria, categorized into four topics: environmental impact, labor practices and human rights, fair trade practices, and sustainable procurement. Inquiries conform to global standards such as the Global Compact Principles, International Labor Organization (ILO) conventions, the GRI standard, the ISO 26000 standard, and the CERES principles. **Learn more**.

GHG Protocol: a program that measures greenhouse gas (GHG) emissions and removals, enabling companies and governments to manage the emissions that cause global warming. By implementing a globally standardized model, GHG allows public and private entities to accurately report the climate impact of their activities, facilitating the planning of mitigation actions.

GPTW Brasil: Great Place To Work recognizes top-rated companies from the employees' viewpoint. The company conducts an internal survey that assesses several criteria pertaining to the work environment, organizational climate, and personnel management to accomplish this.

General Data Protection Law (GDPR): Law No. 13,709/2018 covers the processing of individuals' personal data, whether in physical or digital form, by both public and private legal entities. This encompasses a variety of operations that can occur manually or digitally.

ISO 14001:2015: standard that specifies the requirements of Environmental Management Systems and allows organizations to develop strategies to protect the environment and quickly respond to changes in environmental conditions.

Sustainable Development Goals (SDGs): a set of 17 global goals established by the United Nations (UN) General Assembly. Each goal is a global call to end poverty, protect the environment and climate and ensure that people everywhere can enjoy peace and prosperity. The goals provide guidelines and targets for all countries to adopt according to their priorities and challenges.

Stakeholders: any individual or organization that impacts or is impacted in any way by the actions of a company.

NR 12: the Regulatory Standard for Work Safety in Machinery and Equipment 12 establishes protective measures to guarantee the physical integrity of employees when working with machinery and equipment.

NR 35: the Regulatory Standard for Work Safety at Height 15 sets forth the minimum requirements encompassing planning, organization, and execution of high elevation work. Its intent is to ensure the protection and well-being of any and all workers involved in such endeavors, whether directly or indirectly.

ABOUT US

ABOUT US

(GRI 2-1; 2-2)

Ligas de Aluminio S.A - LIASA is a Brazilian company that primarily produces and sells silicon metal. Established in 1966 in the northern region of Minas Gerais in Pirapora, LIASA aims to bolster the local economy, enhance the micro-region's development, and retain its position as a national leader in the industry.

Silicon metal, LIASA's primary product, is produced by reducing the ore in electric furnaces that can reach temperatures over 3,000ºC. Bioreducers are used to reduce the silica present in milky quartz to obtain the desired silicon metal. This process is achieved by using bioreducers such as charcoal and wood chips, which are renewable products from planted forests.

The company remains attentive to the possible impacts on the environment and was a pioneer in providing a sustainable solution for silicon metal production. Its innovation in the 1970s utilized charcoal as a metallurgical reducer (bioreducer).

OPERATIONS

Currently, LIASA has established its administrative office in Belo Horizonte, in the state of Minas Gerais, in addition to the Pirapora plant. Thanks to implemented investments and advances, its operations extend beyond the plant.

In 2022, it established subsidiaries in the city of Buritizeiro, located in the north of Minas Gerais, dedicated to forestry activities. This move guarantees greater autonomy in its long-term activities.

Note: LIASA's operations beyond its facility are in progress and set to be executed in 2023.

PURPOSE

To supply silicon metal (Green Silicon) and its derivatives as vital products that aid in the advancement of sustainable living.

VALUES

Appreciating life and the environment

Ensuring people's well-being and development

Maintaining integrity in relationships

Being a team that takes action

Operating with excellence

Delivering what we promise

Growing and evolving together

TIMELINE

1966

LIASA was established by **José Patrus de Sousa**, who was a civil, mining and metallurgical engineer, a professor at the Federal University of Minas Gerais (UFMG), a businessman, and an entrepreneur.

When Professor José Patrus visited Pirapora to select the site for LIASA's construction, he spent the night in the sole hotel in town. News of the forthcoming industry rapidly spread throughout the town. The following day, there was an extensive line of job seekers outside the hotel. As a father of five, the professor instructed his assistant to document the names and number of children of every potential employee interested in securing work. He recognized that the higher the number of children, the greater the need to work, and decided to make this one of the hiring criteria. As a result, it is accurate to assert that LIASA emerged with a concern for social work.

1975

From that point forward, silicon metal production commenced and became the company's primary product.

1972

Furnace I - production of ferrosilicon began, a product that was exported to Norway in the same year.

2004

Modernizing Furnace IV to increase production capacity.

2005

Modernizing Furnace II to increase production capacity.

2003

Modernizing Furnace III to increase production capacity.

2008

Modernizing Furnace I to increase production capacity.

1988

LIASA becomes the third-largest producer of silicon metal globally. The company also constructs Furnaces III and IV this same year.

2022

The year was marked by a number of events: the start of the plan to modernize LIASA's plant; the expansion of active involvement with renewable sources through the establishment of subsidiaries that promote forestry; the completion of projects for the production of renewable energy (solar); the registration in Europe of the concept of **"Green Silicon"**, which is the identity of LIASA's product; and the achievement of new certifications and recognitions.

The progress made in 2022 represents major milestones in LIASA's history and will be described in detail in this report.

1980

Furnace II - construction of the second furnace with Norwegian technology.

During their visit to LIASA to make a furnace delivery, the Norwegians expressed doubt about the feasibility of using charcoal as a bioreducer in the process. Previously, the furnaces solely used mineral coal, a non-renewable and more expensive fossil fuel. To truly believe in the revolutionary system, the Norwegians needed to see it for themselves.

THE BUSINESS

(GRI 2-6)

LIASA operates in the metallurgical sector, specializing in the transformation of milky quartz into silicon metal and ferrosilicon. This process yields active silica as a byproduct. The production process is comprehensive and yields favorable results on multiple fronts.

1) Operations:
LIASA's operations extend beyond silicon metal production as we collaborate with our own production team and support strategic input vendors, such as bio-reducers, electricity, and quartz. We consistently invest in these areas.

2) Process Control:
management is conducted adhering to global quality standards and prioritizing employee safety, operational efficiency, environmental preservation, and product quality.

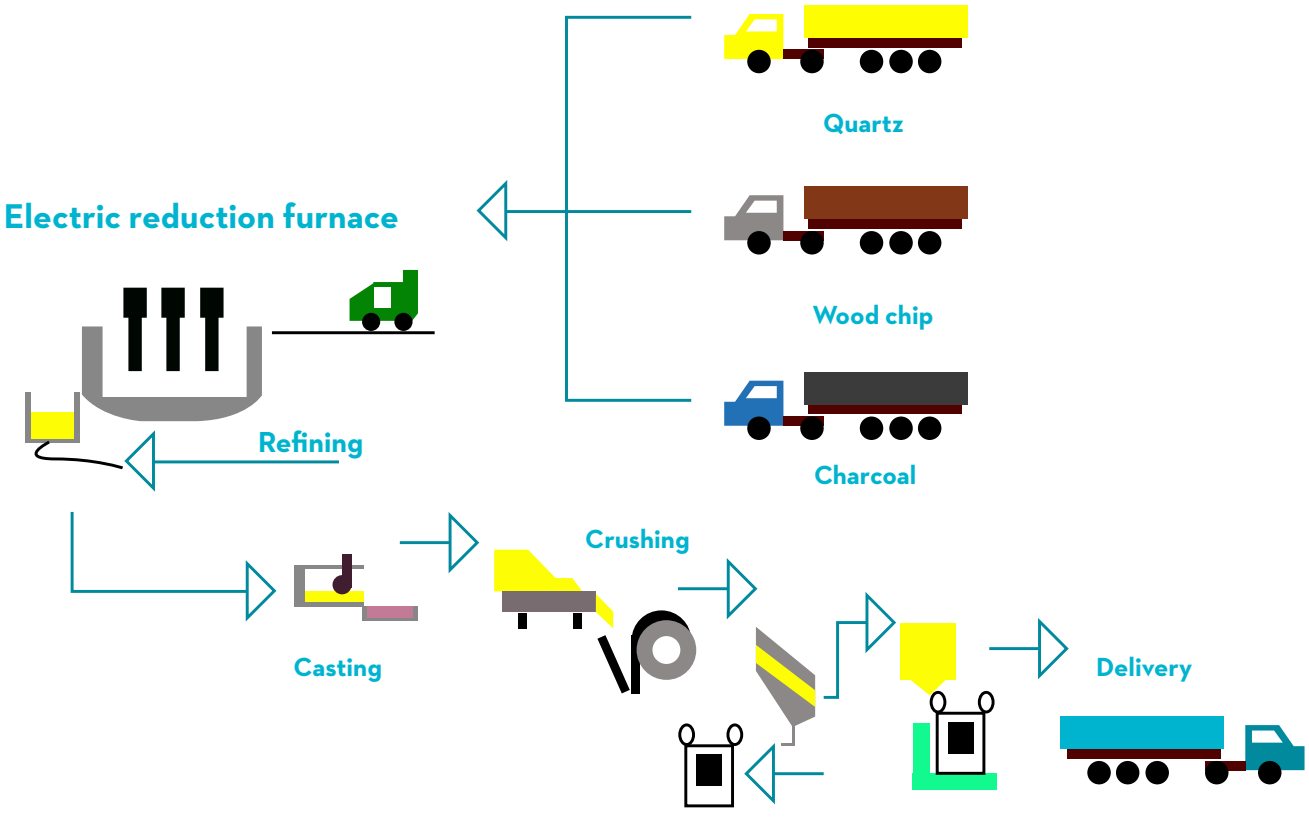
3) Quality Control:
upheld throughout all stages of the production process via laboratory facilities that guarantee the product meets all necessary technical parameters as per the customer's requirements.

MARKET SHARE*

2.5%
global market share

7.5%
market share

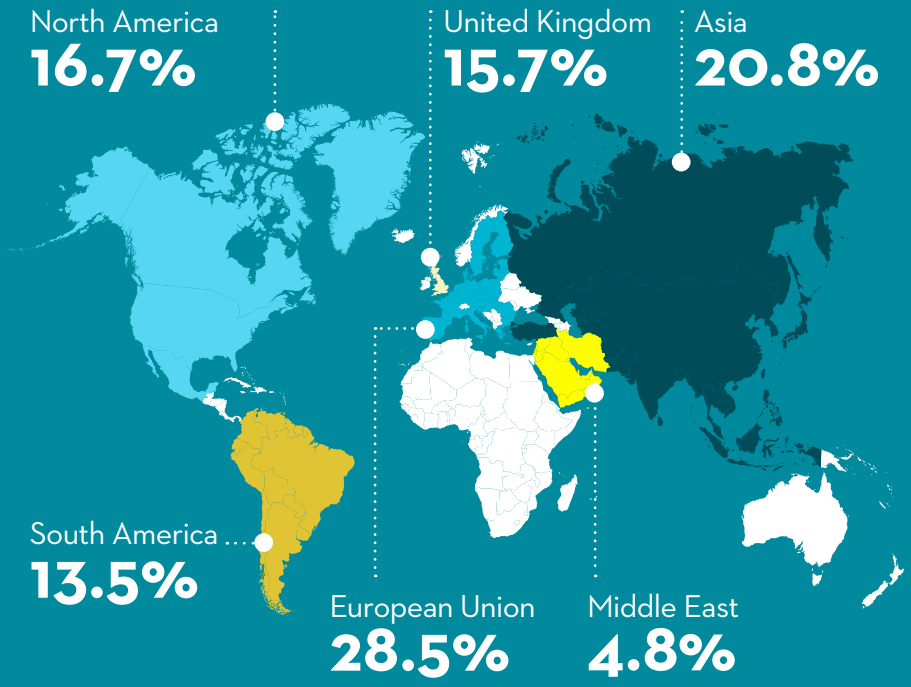
**Excluding China, which is not included in the company's analysis due to its global share.*



Silicon is employed in about 10,000 products, including those resulting from advanced technologies aimed at a sustainable economy. Such products include industrial and medical silicon, metal alloys, solar panels, electric car batteries, and microprocessors.

LIASA presently operates four electric reduction furnaces at its plant to produce Silicon Metal.

The company primarily operates in foreign markets, with approximately 87% of its production exported to Europe, North America, Asia, and the Middle East.



Within the domestic market, silicon is predominantly allocated to the states of São Paulo and Minas Gerais.

MODERNIZATION AND GROWTH

With a focus on expanding its economic growth, LIASA combines the tradition of a family business with the most advanced standards of technology and management, which allow for the sustainable evolution of its business.

LIASA is constantly investing in its plant in Pirapora (MG), with an estimated expenditure of half a billion Brazilian reais (BRL) on technology, especially aimed at environmental improvements. This process is essential to increase its competitiveness in a market where demand for silicon metal is growing.

To strengthen LIASA's innovative profile, we have plans to update the furnaces by integrating groundbreaking technologies, leveraging the company's expertise. Learn more in chapter **Innovation and patents.**

Everything is being executed according to the ESG principles, with a devoted focus on environmental and human safety.

Additionally, the investments are indicative of social benefits that lead to job generation and regional expansion. **Learn more.**

GREEN SILICON

With sustainability as one of its fundamental pillars for management and production, LIASA introduced the concept of "Green Silicon" in 2022. This was made possible by our investments in process efficiency, ensuring the sustainable utilization of resources. The term encompasses the company's social and environmental responsibility throughout its production chain, from raw materials and renewable inputs to final product delivery. This includes managing vendors and employee hiring.

LIASA has designated Green Silicon as its product identity, representing a genuine symbol of sustainability. Green silicon has already been registered in Europe and is being sought after in other locations, including the United States.

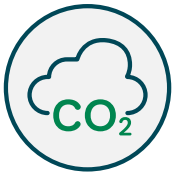
LIASA:

- Electro-intensive industry fully powered by solar energy and renewable gearbox (bioreducer);
- It has a carbon footprint that is net negative, taking into account emissions, offsets, and stocks;
- It has expanded operations by developing its own planted forest areas and consistently increasing self-production of bioreducer.
- It provides continuous incentives for the circular economy by entirely reusing the waste produced during its manufacturing process. Some of the waste is recovered and sold again.

LIASA's eco-friendly Green Silicon serves as a raw material for other sustainable products and a true representation of an ESG pillar.

The resulting product feeds into a critical chain for sustainable development, including the solar panel, chip, microprocessor and electric car battery industries, among others.

The recent advancements in the company's ESG agenda have enabled the shift towards Green Silicon. In addition, the company has implemented new technologies that enhance productivity while reducing input consumption:



Carbon emissions lower than removals and stock.

Energy from renewable sources.

Circular economy through the management of waste, tailings and by-products.

Use of bioreducers in the production process.

Compliance with international sustainability standards.

CERTIFICATIONS, AWARDS AND RECOGNITION

- **ISO 9001:** since 1996 - the main standard of excellence required by the national and global market.
- **ISO 14001:** 2015: accomplished in 2022 - certifies organizations dedicated to managing their environmental impact.
- **GPTW (Great Place to Work Brazil):** certified in 2022, and is considered a great place to work by 88% of employees.
- **GHG Protocol Silver Seal:** earned by publishing the complete greenhouse gas (GHG) inventory. **Learn more.**
- **EcoVadis:** gold medal, awarded in 2022 - one of the most trustworthy sustainability rating systems worldwide, placing LIASA among the top 3% highest rated companies within its industry.

PRODUCT QUALITY AND MANAGEMENT

(GRI 3-3 Own topic: Customer satisfaction and product quality)

One of LIASA's primary goals is to execute its operations with utmost excellence, meeting market and customer demands while delivering superior and sustainable products.

Thus, the company consistently nurtures long-standing relationships with commercial partners, continuously enhancing its processes to ensure peak product quality, efficiency, sustainability, and business continuity.

Over the past year, LIASA broadened its market presence via flexible manufacturing methods to boost sales, wider distribution channels, and emphasis on product quality and efficiency.

The strategic purchase of necessary inputs and investments in the company's own production of inputs (solar energy) and vital raw material (planted wood and quartz) contributed to the company's positive results in the past year and the optimistic outlook for 2023.

QUALITY CONTROL

Through our Quality Management System, LIASA ensures compliance with our customers' specified conditions through effective controls.

Since 2022, we have implemented the *World Class Manufacturing (WCM)* concept, which focuses on enhancing processes for various industry pillars such as safety, maintenance, energy, and quality, among others. Senior management closely monitors our management targets.

LIASA provides technical assistance and after-sales support in partnership with the industrial sector to ensure top-notch product quality with prompt problem-solving and continuous improvement.

The company generates Customer Complaints Reports to evaluate the effectiveness of its Management System and monitors measures creating positive impacts on both customer and company processes. These efforts generate noteworthy enhancements in efficiency, logistics, packaging, and beyond.

- Customer satisfaction rate in 2022: **98.6%.**

- Performance rated as excellent and above the established target: **94%** *(LS-02).*

In addition, the company received a total of five customer complaints throughout the year, all of which were responded to promptly. *(LS-03)*

In instances of internal deviations resulting in customer complaints, LIASA carefully evaluates the process and follows non-compliance procedures.

LIASA's primary 2023 goal is to reformulate customer satisfaction research tools and parameters, with continuous improvement applied to the process.

INNOVATION IN PRODUCTION

(GRI 3-3 Own topic: Innovation and patents)

LIASA is committed to developing and improving the silicon metal production process. As a company at the forefront of technological innovation, we have undertaken unprecedented industrial projects.

Today, we have filed 16 industrial patent applications focused on processing, mechanical engineering, and electricity with Brazil's National Institute of Industrial Property (INPI). The following are highlighted:

• System and process for dampening charcoal to manage dust emissions and enhance efficiency in the production of silicon metal;

• Charge supply system for an electric reduction furnace;

• Equipment for cleaning hot pans during the refining of liquid metal;

• System and method for measuring the distance between the electrode tip and furnace hearth.

Patent registrations are currently overseen by the Industrial Department, with assistance from the Legal Department and an external consulting firm.

Furthermore, through implementing the WCM methodology, LIASA has launched various groundbreaking projects that span across all sectors of the company, from operational staff to technical experts, always with the goal of providing customers with the best possible product.

For 2023, we anticipate enhancing the policies and processes for managing the topic while establishing related indicators.

Please note that indicator LS-04, which pertains to the percentage of turnover allocated to Research & Development, is unavailable in this reporting cycle.

ESG STRATEGY

ESG STRATEGY

(GRI 2-14; 3-1)

LIASA's material topics are the foundation of its ESG strategy outlined in 2022 through a robust process conducted by the ESG Committee in partnership with a specialized consulting firm. This report's scope centers on these topics.

Throughout 2022, the company's Executive Committee and shareholders participated in defining the ESG strategy by attending workshops to set targets, conducting materiality interviews, and holding meetings to deliberate and monitor results.

Learn more in the **Governance chapter**.

KEY STEPS:

Interviews were conducted with seven company leaders, including the CEO, COO, Managing, Finance and ESG Director, as well as managers from the Industrial, Procurement, Commercial, Forestry and Environment departments.

Analysis of sectoral and internal documents.

Identifying and prioritizing the actual and potential positive and negative impacts on the economy, environment, and individuals.

Analysis of LIASA's ESG maturity, risks and opportunities.

Defining and prioritizing material topics.

Fifteen material topics were identified and prioritized, grouped into three categories, as presented in the table on the next page.

STRATEGIC PILLAR	MATERIAL TOPICS (GRI 3-2)	RELATED SDG
RESPONSIBILITY Commitments to preserve the environment	Air quality	
	Renewable energy	
	Climate change	
	Water and effluents	
	Waste and tailings management	
	Forest management	
DIGNITY Commitments to value people	Community relations and social responsibility	
	Occupational health and safety	
	Workers' quality of life and dignity at work	
	Responsible supply	
	Diversity and equal opportunity	
COMPETITIVENESS Commitments to leverage our business	Ethics and compliance	
	Corporate	
	Innovation and patents	
	Customer satisfaction and product quality	

At the conclusion of their efforts, LIASA created a set of commitments and a roadmap consisting of short-, medium-, and long-term goals for each of their focal areas. They also connected these goals to the United Nations (UN) 2030 Agenda, otherwise known as the **Sustainable Development Goals (SDGs)**.

As outlined below, the goals established for 2022 were met while making progress towards the others within the projected timeline.

Material topic	Goal	Status
Overall management	ISO 14001 certification by 2022.	✔
	Integrated environmental policy by 2023.	✔
Air quality: eliminating sources and air pollution	Installing dedusting filters in all furnaces by 2023.	In progress, within the expected timeframe, with 1 filter already installed and the others being implemented.
Renewable energy	Self-production of renewable energy in 2023.	In progress, on schedule.
	Increasing the production of our own bioreducers in the industrial process by 2030.	In progress, on schedule.
Climate change	Promoting the reduction of CO_2 emissions by 2021.	✔
	Disclosing GHG Protocol Brazil inventory by 2022.	✔
	Posting data in the CDP by 2025.	In progress, on schedule.
	Achieving zero carbon balance by 2030.	Completed, ahead of schedule in 2021.
Water and effluents	Reducing water footprint per metric ton of product by 2025.	In progress, on schedule.
Waste management and circular economy	100% circular economy with filters by 2025.	LIASA's material topics are the foundation of its ESG strategy outlined in 2022 through a robust process conducted by the ESG Committee in partnership with a specialized consulting firm. This report's scope centers on these topics.
	100% of all industrial waste reused by 2026.	In progress, on schedule.
Forest management	Increasing certified forest charcoal production volume by 2024.	In progress, on schedule.
	FSC Forest Certification for all eligible farms by 2030.	In progress, on schedule.
Community relations and social responsibility	Private Social Investment Policy by 2022.	✔
	Implementing the "Ligas da Vida" project by 2023.	✔

A multidisciplinary team, managed by the ESG Committee, developed this sustainability report whereas its final version underwent review by the Managing, Finance and ESG Director, the CEO and the COO.

Material topic	Goal	Status
Occupational health and safety	Implementing a total safety culture by 2022.	✔
	ISO 45001 Occupational Health and Safety by 2024.	In progress, on schedule.
Employee quality of life and dignity at work	*Great Place to Work* by 2023.	Completed, ahead of schedule in 2022.
Diversity and equal opportunity	Increasing the percentage of women in the workforce.	In progress, on schedule. In any case, the percentage has already been increased in 2022.
Responsible supply	Implementing the responsible purchasing program by 2022.	✔
	Developing local suppliers by 2023.	In progress, on schedule.
Customer satisfaction and product quality	Creating in-house survey based on ISO 9001 indicators: customer satisfaction and complaints, setting targets: all complaints handled by 2023.	In progress, on schedule. In any case, the first survey was conducted in 2022.
Ethics and compliance	All employees and third parties to complete Code of Ethics training by 2023.	In progress, on schedule. Important to note that employee training (or refreshing) has already occurred.
Corporate	Adapting governance to the IBGC Best Practices Code by 2024.	In progress, on schedule.
Innovation and patents	Allocating a percentage of our turnover to R&D (Research and Development) by 2024.	In progress, on schedule.
	Number of innovation projects to be completed by 2025.	In progress, on schedule.

LIASA's ESG Working Group, composed of representatives from the Legal, Environmental, Management System, Communication and Social Responsibility, People, and Management areas, meets biweekly to discuss and monitor the actions and goals outlined in the strategic sustainability plan.

Additionally, LIASA places a high importance on the development of its governance policies, which are continuously analyzed by the ESG Committee. The Managing, Finance and ESG Board reviews their implementation while monitoring the process alongside the CEO and the COO.

STAKEHOLDER ENGAGEMENT

(GRI 2-29)

LIASA's approach to managing relationships with both internal and external stakeholders emphasizes transparency, open dialogue, and respect, which directly translates to effective collaboration in mitigating risks and solving problems.

Key stakeholders

- Employees, their dependents and family members.
- Local community.
- Vendors.
- Customers.
- Government (in its most varied forms of organization).
- Competitors.
- Specialist media.

The Communication Committee, consisting of representatives from several company divisions (Health and Safety, Environment and Forestry, Production, HR, Raw Materials, Laboratory, and Warehouse), conducts the mapping of target speeches and determines appropriate dialogues and engagement strategies. Additionally, they engage in tactical communication planning, which includes defining goals and initiatives.

In 2022, the engagement process with the internal audience comprised communication, training, and recognition initiatives, including specific materiality-building actions. **Learn more**.

For external audiences, LIASA maintains channels including its website, LinkedIn profile, and the **Ombudsman Channel**. Additionally, it develops various cultural and social initiatives. **Learn more**.

CORPORATE GOVERNANCE

Fernando Patrus, CEO, & Marcos Patrus, COO.

GOVERNANCE

(GRI 3-3: Own topic: Governance; GRI 2-9; 2-10)

To ensure the sustainability and expansion of the business, LIASA has improved its governance model by utilizing transparent, ethical, and structured actions to support its strategies and initiatives.

The year 2022 proved to be crucial for LIASA, as the company took significant steps in enhancing its corporate governance via corporate restructuring and the establishment of boards. These were filled with market professionals boasting recognized technical skills, and LIASA also emphasized the value of its long-standing employees.

LIASA implemented internal control measures and collaborative decision-making. KPMG conducted a financial and accounting audit, and S&P completed a risk assessment for the company (both are world-renowned firms).

These milestones, which are published and assess LIASA's performance, contribute to its certifications and add more transparency and stability to its management.

GOVERNANCE STRUCTURE

Recognizing the significant social and environmental function it serves in advancing the economy of northern Minas Gerais, the impact it has on the well-being of its workforce, and the contribution of its product (Green Silicon) to a sustainable production chain, LIASA directed its focus towards enhancing its internal organization in 2022.

Given the transcendent importance of its business objectives, LIASA has commenced a transitional and successional initiative, set to undergo gradual implementation over the forthcoming years.

External consultants provided support for this work, aiding in the design of a novel management structure and the proposal of updated governance policies, which shall be revised periodically to suit company needs.

The company is carefully and deliberately enhancing its corporate governance while preserving its core values and business operations.

For the next few years, LIASA will formalize the composition of its Board of Directors and Shareholders' Agreement, which will be granted decision-making status.

ORGANIZATIONAL STRUCTURE

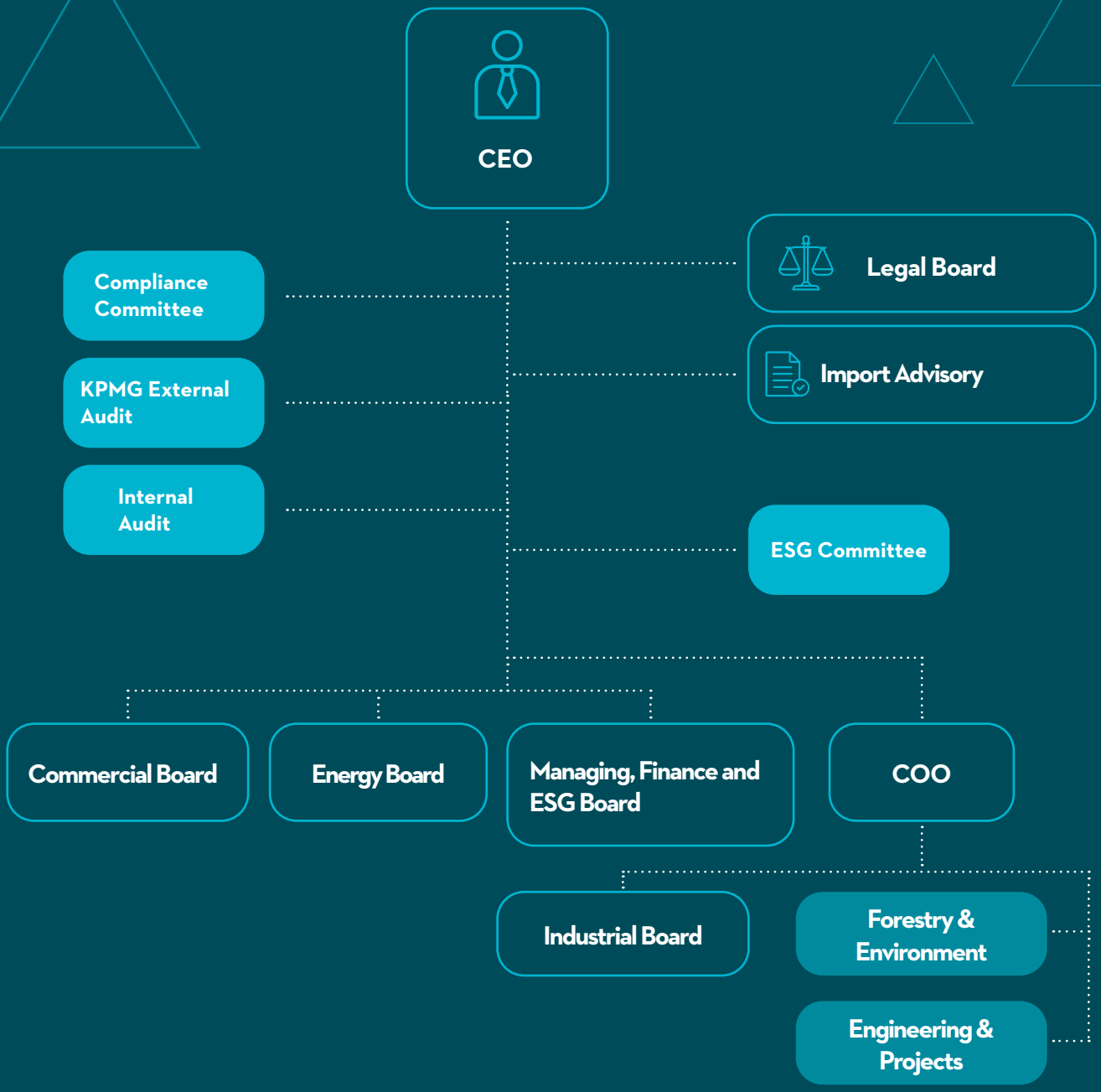
Executive Committee:
A committee convenes on a monthly basis to discuss strategic matters, including those pertaining to assets, budget, and risk management. The committee comprises internal leadership positions, including C-level executives, directors, and managers.

Currently, the partners serve as CEO and COO, but there is no Board of Directors established yet.

In addition to the partners, the Executive Committee comprises directors selected based on the organizational structure, career, skills, and the opinions of stakeholders, including internal and external customers and shareholders.

In 2022, five new boards were established to assist the CEO and COO; two of these appointees came from outside the company with specialized expertise.

(GRI 2-9; 2-11)



Throughout 2022, LIASA conducted a range of initiatives involving the Executive Committee and shareholders. These initiatives include a workshop to define ESG targets and ESG Committee meetings held throughout the year to discuss the results and deliberate on the set targets. Specialists contributed specific knowledge for each item in the sustainability program.

(GRI 2-17)

SHARED MANAGEMENT

(GRI 2-9; 2-13)

One of the company's main advantages is that management is carried out collaboratively, with leaders working directly with senior management to conduct activities in a more agile, close, and strategic manner.

Furthermore, as part of a more decentralized corporate governance model, LIASA has committees that manage and assign responsibility for activities related to the primary impacts (economic, environmental, and personnel) of the business.

The committees have a set meeting schedule and can be called upon whenever needed. The top governing body is consistently updated and, when appropriate, participates in strategic discussions.

• ESG Committee:
chaired by the CEO, the committee comprises the Managing, Finance and ESG Director, along with the Communication, Environment, Legal, Quality, and New Business departments. The committee convenes every 45 days to oversee and determine the necessary action plan and investments.

• People & Management Committee:
consists of HR employees and is led by the Managing, Finance and ESG Director. Meetings take place monthly within the Executive Committee and feature fixed topics and specific agendas focused on ongoing people management projects. Additionally, the committee convenes yearly to evaluate and calibrate company-wide performance assessments.

• OSH (Occupational Health and Safety) Committee:
led by the Managing, Finance, and ESG Director, with input from the Director of Industrial Operations and the OSH team, this committee convenes monthly to assess key performance indicators in the area, including incidents, hazards, actions, and investigations. Based on this analysis, the committee makes informed decisions regarding economic and managerial measures and investments required for permanent mitigation of associated risks.

• Compliance Committee:
consisting of three members (Industrial Director, Accounting and Controllership Manager, and Information Technology Manager), selected based on the company's ethical and compliance criteria. It deliberates on economic, environmental, informational security, and personnel-related issues, redirects complaint resolutions to the designated areas, and convenes when sought after by company channels or other corporate demands. **Learn more.**

• Communication Committee:
led by the Managing, Finance, and ESG Director and comprises employees from several departments. It convenes monthly with delegates from all areas of the organization. Its primary goal is to disclose institutional policies to employees and collect valuable information to support new initiatives, campaigns, and issue resolution.

REMUNERATION AND ASSESSMENT OF KEY MANAGERS

(GRI 2-18; 2-19; 2-20)

The partners determine the remuneration policy for members of the Executive Committee and the Executive Board. The committee is responsible for defining management and budget goals, evaluating them for development management, meritocracy, and bonuses.

The company considers sustainability performance when assessing directors and other managers. This assessment process factors in organizational positions, responsibilities, and remuneration and influences their careers.

The Executive Committee divides the ESG-related objectives outlined in the company's strategic plan into targets for the executives. The ESG Committee then tracks the progress towards these targets.

Among the targets being assessed are those pertaining to acquiring ISO 14001, ISO 45001 (work in progress), GPTW, GRI, GHG Protocol, EcoVadis, and WCM certifications.

RISK MANAGEMENT

(GRI 2-16)

LIASA's executive team receives real-time communication from strategic areas on critical business concerns, including their associated risks, levels of criticality, analysis, solutions, and key points.

Non-emergency issues or those requiring more detailed analysis are reported at Executive Committee meetings.

Refer to the table below for the company's significant concerns conveyed to the highest governing body in 2022.

Complexity of the international market	Geopolitical changes have affected the commercial channels for LIASA's products, potentially impacting the supply of strategic inputs. However, we have mitigated these risks by implementing regulatory stock. Furthermore, these changes have opened up new opportunities for international market demands.
Implementing the strategy	Strategic planning is a living instrument, built annually, with a multi-year vision and continually revisited. Its execution includes investments in the short-, medium-, and long-term. It focuses on organizational change, decision-making, and broad governance of opportunities and risks. The foundations of strategic planning are sustainable growth, governance and business ethics, people, customers, global presence and legal requirements.
Modernization plan	Continuous modernization is a crucial element of LIASA's sustainable growth strategy, along with the autonomy over strategic inputs such as energy, bioreducer, and quartz. Since this factor impacts LIASA's sustainability, senior management frequently monitors costs, deadlines, and quality, which are all factors requiring continuous attention.
Institutional landscape	Continuous monitoring of both foreign and domestic markets' political and economic conditions, particularly those relating to customers and primary competitors.
Capacity for innovation	The development of innovation capacity lies in executing diverse modernization projects, analyzing the comprehensive commercial strategy, and pursuing autonomy in strategic inputs.
Disruption of IT systems, including cyberattacks	International cases are monitored by LIASA, which uses human and technological resources to stay informed about blockchain solutions worldwide. Additionally, the organization implements strong internal risk mitigation processes.
Developing people and leaders	The process is structured around reviewing key positions and their successors, and is used as an opportunity to assess and develop talent throughout the company. Fluidity and oxygenation of the structure, seeking to transform the organizational culture, are the keynote of management. Working with multifunctional, high-performance teams, the aim is for the people development process to take place with excellence, in a fluid and continuous manner.
Legal, industry regulation and tax incidence	The Legal department monitors legislative changes to excel in meeting our company's demands. Their work aligns with LIASA's business and works proactively, resulting in minimal litigation.
Financial market fluctuations	Permanent monitoring of global market changes is necessary to effectively manage financial resources, mitigate risks, and capitalize on opportunities. Making sound financial decisions requires a careful balancing of budgeting and long-term investments.
Supply chain and raw materials	LIASA aims for greater autonomy by investing in its production and cultivating long-term vendors, particularly for its strategic inputs like energy, planted forests, and quartz. Additionally, LIASA requires the same level of dedication and adherence to quality and legality from all vendors at every level, mirroring its commitment to customers.

ETHICS AND THE FIGHT AGAINST CORRUPTION

(GRI 3-3: 205 Anti-corruption; GRI 2-24)

The fight against corruption, respect, and integrity in relationships are commitments assumed by LIASA that guide the actions of its employees, service providers, and business partners. These principles are reinforced by the Code of Ethics, Conduct, and Responsibilities, as well as the Anti-Corruption Policy, which are widely distributed. **Click here to access.**

LIASA's employees undergo regular internal training to better understand these commitments, which are clearly and concisely explained. Additionally, LIASA promotes its policies and commits to defending the Universal Declaration of Human Rights, the American Convention on Human Rights, and the UN Global Compact through internal communication and support of social, cultural, and sports initiatives.

When conducting business with partners, LIASA presents these policies as requirements for signing contracts and commercial agreements. LIASA complies with the due diligence principles outlined in national laws, specifically the Anti-Corruption Law (Law No. 12.846/13), Bidding Law (Law No. 8.666/93), and Administrative Misconduct Law (Law No. 8.429/92).

The company has established, implemented, and communicated policy commitments through structured mechanisms. These include defining objectives in a collaboratively, through internal groups with specific delegation, approval by the Executive Committee, and subsequent monitoring and management by corporate committees.

These policies are established through benchmarking with other companies and are evaluated and certified by external organizations, including ISO 14001, ISO 45001 (with ongoing implementation), and EcoVadis certification. Furthermore, external consultants consistently enhance these policies.

ANTI-CORRUPTION

(GRI 205-1; 205-3)

In 2022, LIASA did not identify any corruption risks or cases related to bribery, fraud, extortion, collusion, money laundering, offering or accepting gifts, loans, commissions, rewards, or any other advantages that may induce dishonest or illegal behavior, breach of trust, or misappropriation. Moreover, no cases of influence peddling, abuse of office, illicit enrichment, obstruction of justice, or concealment were detected.

All staff receive annual training on this topic. LIASA's anti-corruption processes and procedures conform to the highest industry standards.

Anti-corruption policies and procedures are communicated to all of LIASA's business partners and suppliers, who are contractually obligated to inform and train their employees on the rules of conduct that govern the company's operations.

Complying with the law is crucial for the company in all its business dealings and throughout the production chain. As such, any potential non-conformities must be approached with careful attention and seriousness.

	2022			
Communication of policies and procedures and training by employee category *(GRI 205-2)*	**Employees informed on anti-corruption policies.**		**Employees who received anti-corruption training**	
	Number	**Percentage**	**Number**	**Percentage**
Director/CEO	6	100%	6	100%
Manager/general manager	16	100%	16	100%
Coordinator/advisor	22	100%	22	100%
Technician/analyst/ supervisor	282	100%	282	100%
Trainee	5	100%	5	100%
Operational	480	100%	480	100%
Interns	6	100%	6	100%
Apprentices	23	68%	23	68%
Total	**840**	**99%**	**840**	**99%**

Note: the company operates solely in the Southeast region. We are currently exploring the possibility of providing training on our Code of Ethics and Conduct as well as our Anti-Corruption Policy.

ANTI-COMPETITIVE BEHAVIOR

(GRI 3-3: 206 Anti-competitive behavior; GRI 206-1)

In 2022, there were no instances of legal action for unfair competition, trust violations, or monopolistic practices.

The company ensures fairness in its purchasing and sales procedures to prevent unfair competition.

COMPLIANCE

(GRI 2-25)

LIASA has a Compliance Committee tasked with preventing, identifying, measuring, reporting, and monitoring corporate risks. Additionally, the committee offers recommendations during the Preliminary Investigation and Infraction Investigation procedures.

Given that it is the responsibility of all employees to identify concerns related to business conduct, area managers must report any suspected irregularities to the committee while adhering to LIASA's principles, values, and relevant sector regulations and procedures.

Furthermore, the company's internal audits are utilized to detect concerns and to provide thorough, impartial, and objective evaluations.

COMPLAINTS, GRIEVANCES AND REPORTS

(GRI 2-26)

For suspected violations of the Code of Ethics, Conduct and Responsibilities, the Anti-Corruption Policy, and LIASA's health and safety rules and policies, there are four options for reporting:

• Directly with the Human Resources (HR) area;

• During the Diálogos Diários de Segurança [Daily Safety Dialogues] (DDS);

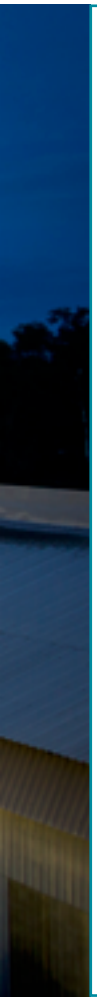
• Directly with the Specialized Services in Occupational Health and Safety (SESMT);

• Through our Ethics Channel, a specialized platform for reporting suspected violations of conduct, standards, and internal policies, employees, vendors, customers, and third parties can take action.

LIASA listens to its employees through various channels to receive, identify, analyze, and respond to any complaints or grievances that may arise.

- **Directly with leaders**
- **Directly to the Compliance Committee**
- **During Communications Committee meeting**

The team participates in bi-monthly "Café com Prosa" meetings, where the Managing, Finance and ESG Director engages in casual conversations with selected employees from different plant areas about their experiences at the company.



OMBUDSMAN CHANNEL

For employees, we offer an Ombudsman Channel to report instances of non-compliance with the Code of Conduct, legislation, or internal LIASA rules.

https://intranet.liasa.com.br/index.php/ouvidoria/

ouvidoria@liasa.com.br

In 2022, LIASA did not have any cases registered with the Ombudsman Channel.

ETHICS CHANNEL

https://www.liasa.com.br/canal-da-etica/

canaldaetica@liasa.com.br

Through the Ethics Channel, **complaints can be made anonymously, or not.**

It is the responsibility of the Compliance Committee, utilizing its established procedures, to probe into every complaint and produce a report for the relevant department heads. They will scrutinize the information presented and, if necessary, covertly involve other departments, dependent on the nature of the concern, but always exercising utmost discretion.

In 2022, four cases were reported through the Ethics Channel and duly dealt with internally.

SOCIAL

SOCIAL

LIASA's people management policies seek to provide a continuous experience of developing employees' skills and behavior, as well as promoting the sharing of values in an environment of cooperation and teamwork.

The company seeks to offer fair working conditions, with jobs and local income generation, and drives the economy of the Pirapora micro-region, being essential to the entire **production chain**.

Aware of this responsibility and its social and economic impacts, LIASA is committed to identifying and mitigating possible negative impacts on local development that may arise from the company's business.

The company also works in partnership with government bodies, meeting with institutions such as the Military Police to carry out training on community impact issues and exchange information, and with the Executive Branch, especially at state and municipal level, to discuss projects and ways of contributing to issues that are important to the community and the company.

Total number of employees by employment contract and gender *(GRI 2-7; 2-30)*	**2021**			**2022**		
	Men	**Women**	**Total**	**Men**	**Women**	**Total**
Own employees with indefinite term	634	44	678	712	69	781
Own temporary employees	58	11	69	23	7	30
Total	**692**	**55**	**747**	**735**	**76**	**811**

Note: All operations are located in the Southeast. Data source: headcount report, December/2021 and December/2022. Interns and apprentices are not included in the headcount. All employees are covered by collective bargaining agreements.

JOBS GENERATED

(GRI 2-8)

LIASA stands out in terms of job creation in the region, as it is responsible for more than 3,000 direct and indirect jobs, which correspond to around 20% of the workforce in Pirapora and its surroundings.

In activities that go beyond its know-how, LIASA hires third-party companies to provide services, mostly for maintenance and assembly work.

With the environmental modernization of the plant, hundreds of new jobs have been created indirectly:

2021:
225 people

2022:
799 people

Great Place To Work.®

In 2022, LIASA received certification from the Great Place to Work Brazil methodology, earning a 88% satisfaction rating from its employees as an outstanding workplace.

Lear more.

NEW EMPLOYEES AND TURNOVER

(GRI 3-3 401: Employment)

One of LIASA's primary methods for fostering internal growth opportunities among its employees is through conducting performance appraisals and implementing internal recruitment programs, which cover the majority of open positions.

In people management, LIASA divides the employee journey into three primary stages:

LIASA is committed to eradicating forced labor and child labor, as well as all types of discrimination in the workplace, following the guidelines of the International Labor Organization (ILO) conventions numbers 29, 130, 138, 182, PO29 and R203.

The company also observes the parameters established by the World Health Organization for all its labor relations.

(GRI 2-23)

1 — 2 — 3

Start
(onboarding)

Life cycle
(training, development, benefits, and salary projection)

End
(recognition)

In 2022, LIASA's employee count remained relatively stable. The company maintained average hiring and turnover rates from the previous year.

Moving forward, LIASA plans to grow its team, projecting the addition of approximately 400 new direct hires and over 1,500 indirect jobs.

EMPLOYEE TURNOVER

(GRI 401-1)

		2021					2022				
Geographical distribution	**Gender**	**Age group**				**Turnover rate by gender and region**	**Age group**				**Turnover rate by gender and region**
		<30	**30-50**	**>50**	**Total**		**<30**	**30-50**	**>50**	**Total**	
Southeast	Men	19	57	11	87	12%	19	55	7	81	11%
	Women	2	11	3	16	2%	3	16	0	19	3%
	Total	**21**	**68**	**14**	**103**	**14%**	**22**	**71**	**7**	**100**	**14%**
Turnover rate by age group		20%	66%	14%			22%	71%	7%		

Note: all workers are located in the Southeast region.

EMPLOYEE HIRES

(GRI 401-1)

		2021					2022				
Geographical distribution	**Gender**	**Age group**				**Hiring rate by gender and region**	**Age group**				**Hiring rate by gender and region**
		<30	**30-50**	**>50**	**Total**		**<30**	**30-50**	**>50**	**Total**	
Southeast	Men	27	54	9	90	91%	32	55	7	94	76%
	Women	3	6	0	9	9%	8	20	1	29	24%
	Total	**30**	**60**	**9**	**99**	**100%**	**40**	**75**	**8**	**123**	**100%**
Hiring rate by age group		30%	61%	9%			33%	61%	7%		

Note: all workers are located in the Southeast region.

A 15% rise in the rate of female recruitment, across the plant and administrative office and all business areas, is a direct outcome of our dedication to advancing diversity and promoting female participation.

Lear more.

REMUNERATION AND BENEFITS

(GRI 401-2)

For LIASA, prioritizing employee care entails providing remuneration and benefits that align with the responsibilities and accomplishments of its professionals and are comparable with other businesses in the industry. As a result, LIASA frequently assesses itself against the top market practices.

The company strives to ensure equitable benefits for all its staff members, irrespective of their contract terms.

The company values seniority and adheres to collective bargaining rules by offering incentives to long-serving employees, aiming to help them retire comfortably.

Benefits:

- Life insurance
- Health and dental insurance
- Food vouchers
- Childcare allowance
- Private Pension Plan
- Sports club

EDUCATION AND TRAINING

(GRI 3-3: 404 Training and education, GRI 404-2)

At LIASA, we strategically prioritize training to ensure employee development, satisfaction, and personal growth, as well as the retention of qualified professionals with the necessary skills for business success.

To accomplish this goal, we have a dedicated department responsible for measuring, analyzing, and reducing operational gaps, while also maintaining an annual training program.

In 2022, LIASA provided its employees with technical, behavioral, and leadership training that respected their career levels and aimed to enhance operational sustainability and safety.

Main courses:

- Integrated Internal Assessment Program
- Internal Leadership Development
- Technical Training in Metalworking
- Operational Training (SOPs)
- Technical Training
- Trainee Program

Average hours of training by year by employee *(GRI 404-1)*		**2021**	**2022**
Admin/technicians	Men	53	7
	Women	11	8
Specialists	Men	13	3
	Women	18	11
Operational	Men	15	23
	Women	3	9
Strategic/tactical	Men	33	17
	Women	12	6
Interns/ apprentices	Men	20	4
	Women	8	8
Total	Men	18	19
	Women	8	8

As a result of the projects completed in 2022, along with obtaining the GPTW certification, we have observed a considerable decrease in critical issues within our operations. This can be attributed to our emphasis on training for operational procedures as well as Occupational Health and Safety.

Moving forward, the company aims to prioritize the following areas for training in the upcoming cycle:

• Training to strengthen LIASA's culture, values and purpose.

• Recycling the entire team through training sessions that cover the Code of Ethics, Anti-Corruption Policy, Privacy and Information Security Policy, Compliance Program, and IN DI006's efforts to raise awareness, prevent and fight against harassment and discrimination.

• Resumption of the Leadership Development program.

• Programs on inclusion and diversity.

With a focus on improving the skills of Pirapora workers, the company partnered with SENAI to offer the Metallurgy Technician training program, with LIASA subsidizing 80% of the cost. Currently, 32 employees are enrolled in the course that commenced in August 2022 and is slated to conclude in April 2024.

Through this initiative, the company not only trains a competent workforce, contributing to the betterment of the community, but also secures qualified successors for its operational leaders.

LIASA actively contributes to job creation and income generation by implementing an enticing and distinctive remuneration policy that has a profound impact on the local economy and community quality of life.

PERFORMANCE EVALUATION

(GRI 404-3)

LIASA has been enhancing its team performance evaluation processes by establishing predefined criteria, objectives, and targets. We actively explore self-development tools to bolster the professional training of our team members and promote a culture of structured feedback.

ENGAGEMENT AND QUALITY OF LIFE

(GRI 2-29)

In order to bolster engagement among our internal audience and foster a closer connection between employees and the company, the following actions are undertaken:

Annual calendar:
LIASA upholds an annual schedule of internal events with a keen focus on various facets such as workplace health and safety, environmental initiatives, leisure, quality of life, culture, and sports. Some of the notable events on our calendar include the "Arraial da LIASA" June party, celebrations for occasions like Women's Day, Mother's Day, Father's Day, Children's Day, Labor Day, Environment Week, Arbor Day, World Water Day, as well as spirited competitions like truco and soccer championships. As the year draws to a close, employees are graciously provided with a Christmas kit and a symbolic sum as a gesture of goodwill from the company, fostering a warm atmosphere for them to celebrate alongside their teams, leaders, and family members.

Communication:
the company maintains robust and well-organized communication channels, guaranteeing swift and transparent dissemination of information to all employees. On a weekly basis, the People and Management team convenes to oversee a range of critical matters, including organizational climate, ethics, operational activities, internal and institutional communication, health and safety, the quality management system, and environmental concerns.

Recognition:
since 2021, LIASA has been hosting an annual gathering to acknowledge and express gratitude to its employees for their tenure with the company.

Educational campaigns:
to promote awareness of health and safety among employees, LIASA employs internal campaigns, lectures, educational raids, and the distribution of informative materials. These initiatives cover a range of topics, including vaccinations, disease prevention, blood donation, mental and emotional well-being, safe and responsible driving, and more.

Sports and leisure:
the company operates a Sports Center, complete with amenities like a soccer field, swimming pool, and various other recreational facilities. These facilities are accessible to affiliated employees and their families, including the option to extend invitations to third parties.

DIVERSITY AND EQUAL OPPORTUNITY

(GRI 3-3: 405 Diversity and equal opportunity; 406 Discrimination)

At LIASA, prioritizing diversity and providing development opportunities for all professionals, regardless of their race, creed, gender, age, or sexual orientation, is not just a commitment, but a means of fostering personal growth. This approach establishes the company as a benchmark and a catalyst for change in the region where it operates.

In its role as a signatory to the UN Sustainable Development Goals (SDGs), LIASA staunchly condemns all forms of discrimination, a stance that is clearly articulated in documents such as the Code of Ethics and Board Normative Instruction 06 (Addressing, Preventing, and Combatting Harassment and Discrimination). The Compliance Committee plays an active role in investigating and resolving complaints in this regard.

LIASA annually observes a week dedicated to fighting discrimination and harassment. It conducts targeted training on this subject, including onboarding sessions for all new employees and third parties.

LIASA's **Ethics Channel** is an important ally in dealing with this issue. In 2022, we received two complaints on this subject, and in both instances, we treated the matters with utmost seriousness. We followed through diligently and implemented the necessary measures, in accordance with the guidelines laid out by our Compliance regulations. *(GRI 406-1)*

In alignment with our commitment to diversity, including enhancing the representation of women in our workforce, 2022 marked our actively focus on aspects of equity and inclusion in a structured manner, outlining specific targets and crafting action plans to realize these objectives.

DIVERSITY IN GOVERNANCE BODIES AND EMPLOYEES

(GRI 405-1)

	2022				
	Age group			Gender	
	- 30 years	30 - 50	+ 50 years	Women	Men
Director/CEO	0%	0%	100%	33%	67%
Manager/general manager	0%	50%	50%	13%	88%
Coordinator/advisor	0%	83%	17%	22%	78%
Technician/analyst/supervisor	5%	69%	26%	15%	85%
Trainee	100%	0%	0%	0%	100%
Operational	11%	74%	16%	5%	95%
Interns	83%	17%	0%	83%	17%
Apprentices	100%	0%	0%	56%	44%
Total	**12%**	**68%**	**20%**	**12%**	**88%**

Note: this information is derived from the BI HR report. The data for the governance body is incorporated within the directors' information, given the overlap in roles. Interns and apprentices are included in this calculation.

In 2022, LIASA experienced a 27% increase in the number of women within its permanent workforce[1].

[1]Excluding interns and apprentices.

APPRECIATION FOR LIFE

(GRI 3-3: 403 Occupational health and safety)

For LIASA, the significance of positive results is contingent upon the health and safety of all employees, an inherent company value.

With this objective in mind, the company allocates resources to training, develops procedures, and acquires equipment aimed at diminishing risks associated with both routine and unforeseen tasks. This proactive approach aids in preventing incidents, accidents, injuries, and occupational illnesses. The continuous assessment of policies and procedures is aimed at refining resource allocation.

The commitment to well-being starts from the upper echelons of management, guaranteeing the effective operation of the Occupational Health and Safety Management System. This comprehensive system encompasses all facets of the company's operations, encompassing production areas such as Raw Materials, Furnaces, Crushing, and Shipping, as well as support areas like Maintenance, Laboratory, SEMR, Warehouse, and Administrative.

The Management System adheres to the following principles and regulations: MTb Ordinance No. 3,214, dated June 8, 1978 (NRs 01 to 37), ISO 45001 (Fundamentals), Technical Instructions of the Fire Department (Its 01 to 30) and NBR 14280/2001. The company adheres to all the human rights standards recommended by the International Labor Organization (ILO).

As part of LIASA's ongoing commitment to modernization, investments are directed toward maintenance and equipment upgrades, all aimed at enhancing employee safety.

In both 2021 and 2022, the Health and Safety Management System extended its coverage to encompass 100% of both the company's direct and indirect employees, having undergone rigorous internal and external audits.

(GRI 403-8)

SAFETY IS EVERYONE'S BUSINESS

(GRI 403-4; 403-5)

At LIASA, occupational safety is a collective responsibility, and all employees are represented by the Internal Accident Prevention Committee (CIPA).

The company invests in training, raising awareness and expanding skills of direct and indirect employees on the topic of safety. Employees undergo training in management tools designed to mitigate and prevent risks, with the training content tailored to meet regulatory requirements specific to the equipment, machinery, or activities involved.

At LIASA, there are established channels for employees to report risk situations they encounter during their tasks. These channels include the Ombudsman Channel or direct communication with the responsible person in their respective department, as well as engagement with members of the Occupational Health and Safety (SEMST) and the HR department.

Notably, every single employee is informed of their right to refuse to perform a task when it poses an imminent risk.

RISK ASSESSMENT

(GRI 403-2; 403-7)

LIASA proactively engages in risk identification and the implementation of safety protocols. This entails conducting sector-specific and cross-sector audits as well as scheduled inspections led by specialists who meticulously assess potential risk scenarios.

To gauge the severity, frequency, and likelihood of these identified risks, the company employs a Risk Matrix and subsequently applies all necessary mitigation measures.

Upon scrutinizing the findings of these inspections and audits, the OSH Committee takes action to enhance working conditions, safety directives, equipment, and risk control mechanisms in full accordance with legal requirements.

Main risks

As a metalworking company, LIASA falls under the classification of risk level IV, in accordance with regulations from Brazil's Ministry of Labor and the National Classification of Economic Activities (CNAE). These risks are inherent to the operations of all companies in this sector.

In light of this, beyond fulfilling its legal obligations and the inherent risk mitigation measures, LIASA upholds occupational health and safety as unwavering principles and values. This commitment serves to ensure the well-being and personal growth of its workforce, protect its assets, and secure the continuity of its processes.

The identification of all potential risks is an integral part of our work permit preparation and activity planning processes.

In the event of a workplace accident, the area manager promptly reports the incident to the SESMT (Specialized Services in Occupational Health and Safety). An on-site inspection is conducted, and the Occupational Safety and Health (OSH) Committee initiates discussions. These discussions involve CIPA representatives and prioritize the necessary corrective measures and improvements.

LIASA has established multiple channels for employees to report potential risk situations in their work areas or elsewhere. These channels include direct communication with the SESMT and HR, participation in Daily Safety Dialogues (DDS), engagement during regular CIPA meetings, or through their sector representative.

For employees who wish to keep their reports confidential, they can utilize the ombudsman channel. Furthermore, all LIASA employees are educated about their right to refuse an activity if they believe it poses an imminent risk. *(GRI 403-4)*

EMPLOYEE PROTECTION

In 2023, LIASA is committed to promoting initiatives geared towards adapting its already successful processes. The primary objective is to further diminish the exposure of individuals to potential risks.

The purpose is, in addition to implementing new measures, to attest to them through the **ISO 45001** certification.

The implementation of ISO 45001 is driven by the goal to minimize workplace injuries and illnesses, encompassing the promotion and safeguarding of both physical and mental health.

HEALTH MANAGEMENT

(GRI 403-3; 403-6)

LIASA has a roster of programs dedicated to actively enhancing the well-being of its employees, including:

- Ergonomic Workplace Analysis (EWA)
- Hearing Conservation Program (HCP)
- Respiratory Protection Program (RPP)
- Risk Management Program (RMP)
- Occupational Risk Management (ORM)
- Occupational Health Medical Control Program (PCMSO)

These programs, in tandem with the team's unwavering dedication to health and safety standards, are manifested through the measures implemented by LIASA. These measures ensure that employees enjoy seamless and convenient access to the plant throughout the working day:

- **An outpatient clinic staffed with an occupational doctor, nurses, and ergonomists is readily available to all employees;**

- **An ambulance, equipped with essential first-aid supplies, stands ready to respond swiftly to accidents or other emergencies, ensuring immediate action when required;**

- **Pre-workplace gymnastic activities are conducted to help employees prepare and improve their physical fitness before commencing their work.**

During medical assessments, employees who require non-work-related medical attention are provided with appropriate referrals to access the right type of medical care.

Notably, there were no reported cases of occupational diseases in 2021 or 2022. *(GRI 403-10)*

The Health Management System's documentation and legal requirements are managed through an external platform monitored by a specialized consulting firm. The company maintains all necessary updates and publications to comply with legal requirements related to health, safety, and ergonomics.

Access to workers' health information is restricted exclusively to the Occupational Medicine department. This information is securely stored, both electronically and in physical form, with stringent access control measures in full alignment with the Compliance program and the provisions of the General Data Protection Law (GDPR).

COMMUNITY EMPOWERMENT

(GRI 3-3: 203 Indirect economic impacts; 413 Local communities)

LIASA conducts ongoing social and environmental mapping of the Pirapora region, which includes all stakeholder groups it interacts with in the area. The collected data aids in the development of social interventions that cater more effectively to the region's needs, while also respecting local culture, environmental considerations, and people's safety.

Estimated population:
56,000 people

Municipal Human Development Index (MHDI):
0.731

Source: https://cidades.ibge.gov.br/brasil/mg/pirapora/panorama

Percentage of individuals with a monthly *per capita* income below half the minimum wage.

37.9%

Average monthly salary of formal employees:

1.9 minimum wages

The company maintains direct communication channels with the public and takes part in local discussions when required. For instance, the Northern Companies Covid Prevention Committee consisted of firms in the region, government officials, and residents, and the company actively engaged in it.

In light of the record-breaking results achieved, it can be confidently stated that LIASA is on the right path and will persist in pursuing its objectives to sustain its upward trajectory.

All of LIASA's operations have implemented engagement initiatives, impact evaluations, and/or developmental programs with a focus on the local community.

(GRI 413-1)


PROJETO
LIGAS DA VIDA

FOCUS ON EDUCATION

(GRI 203-1; 203-2; 413-2)

Committed to regional development and recognized as a model company in the area, LIASA supports and executes diverse social projects to catalyze the local community's growth, ensuring its sustainability and autonomy.

The company has ongoing social projects, primarily concentrated on children's education, which initially support employees' children. The main action being implemented is the "Ligas da Vida" program, which focuses on the holistic development of 7 to 17-year-old children and adolescents. The program provides a range of activities, including theater classes, capoeira, sports, dance, music, vegetable gardening, percussion, and literature.

These multidisciplinary activities are held at the LIASA Sports Center, where children and young people are also provided with tutoring and meals made with ingredients sourced from the program's own vegetable garden. With a customized educational plan aimed at empowering individuals within a collective, participants engage in regular meetings with supervisors and teachers for support with academic tasks and to enhance their understanding and interpretation of instructional materials.

In 2022, "Ligas da Vida" had 60 participating students. For 2023, our goal is to expand to 70 vacancies and offer an additional 80 vacancies devoted solely to sports, dance, and capoeira. The program will also establish its own headquarters.

The project also involved distributing 540 free copies of the children's book "Aventuras de Pira-Poré - O Grande Gato da Mata".

THEATER, LITERATURE, FILM AND OTHER ARTS

Throughout 2022, "Ligas da Vida" students participated in culturally-based projects that were supported by LIASA and designed to benefit the local community.

The following list provides details on some of these projects:

- "Sementes do Buritizeiro" Exhibit: Arts and Film workshops in the cities of Buritizeiro and Pirapora.

- "Piraporarte": theatrical performances in local cultural venues, as well as workshops in sewing, music, dance, and theater.

- "Mineiridades": a film screening, poetry contest, theatrical and cultural presentations, and a musical performance by "Ligas da Vida" students will conclude the event.

- Reading Seminar: aimed at teachers and students in the early years of primary education in municipal and state public schools, with a focus on encouraging reading.

VALUE GENERATION

LIASA's location in Pirapora has a purpose. Since its establishment, the company has strived to serve as a driving force for the local economy by generating revenue for public funds, creating job opportunities, and facilitating various other aspects of community development.

• In 2022, BRL 218 million in taxes, fees and contributions were paid.

• LIASA creates both direct and indirect employment opportunities in Pirapora, particularly through the modernization of its plant.

• Investing in reforestation generated approximately 110 direct jobs in 2022, promoting the forestry industry within the region. Over the next few years, 500 direct jobs are expected to be created.

• Contribution to income generation in the local community through partnerships with the Association of Recyclable Materials Collectors (ASCARPI) and the Cooperative of Recyclable Materials Collectors (COPRARTE) in the Cidade Jardim neighborhood. COPRARTE collects paper and plastic for recycling from industry.

GROWING TOGETHER

LIASA's growth has a significant multiplier effect on the economy of Pirapora and Buritizeiro, impacting various sectors of the community and the lives of thousands of people.

The company actively contributes to the development of the regional supply chain in industrial, commercial, and service segments. A prime illustration would be the bioreducers and quartz producers, who, located up to 400 km from the operation, have a close association with the business. **Learn more.**

There are also technological services that expand and maintain, favoring local operators, as a means of promoting growth within the silicon industry and economy of the region.

DONATIONS AND ACTIONS TO SUPPORT LOCAL INFRASTRUCTURE

In 2022, LIASA allocated BRL 3.8 million for donations, sponsorships, and incentives.

• Allocation of resources for the paving of rural roads near LIASA's farms and public roads surrounding the operation.

• Renovation of the Convention Center, a venue for events and parties in Pirapora.

• Revitalizing the waterfront of the São Francisco River with our support for the selective waste collection project led by Pirapora City Hall, including donating garbage cans for waste disposal.

• Donating quartz fines to APAC Pirapora, an organization committed to assisting incarcerated individuals, which will utilize the contribution for road paving and decorations.

• Collaboration with the Water and Sewerage Service (SAAE), through the Ouro Norte Environmental Education project, to donate big bags to 24 educational institutions, including 10,000 public school students. **Learn more here.**

• Supporting the Pirapora Association of Parents and Friends of the Disabled (APAE) to renovate the basketball court, supply new uniforms for the students, and install solar panels for sustainable energy.

• Supporting the São Vicente de Paula Home for the Elderly by renovating bathrooms, purchasing institutional supplies (such as mattresses, beds, and bedding), and installing photovoltaic panels, among other initiatives.

Social and environmental projects are maintained to aid the community's economic advancement, including environmental education programs in collaboration with the City Council and monthly actions focused on health, safety, and the environment.

The company's administrative office is based in Belo Horizonte, where it sponsored the following project via the National Program to Support Culture (PRONAC) and the Culture Incentive Law:

• "Café de Minas - Fazendas e Sabores", a book released in 2022, presents a history of the key players in the coffee-growing industry in Minas Gerais. It draws its inspiration from Minas Gerais coffee farms and includes recipes for hot and iced coffee drinks.

To better serve the community, LIASA provides multiple communication and service channels available at the Pirapora plant entrance, including Contact Us, email, and telephone. No complaints have been reported in 2022.

RESPONSIBLE SUPPLY

(GRI 3-3: 204 Procurement practices; GRI 204-1)

One way LIASA bolsters the regional economy is by employing local vendors, creating indirect employment opportunities, and fostering entrepreneurship. This also enhances currency circulation and facilitates social transformation.

These outcomes are particularly noticeable through LIASA's partnerships established in the Pirapora, Buritizeiro, and Várzea da Palma municipalities.

PROCUREMENT IN 2022

Total purchases	**BRL 1,495 billion**	
Local purchases	**BRL 274 million**	**18.3%**

In 2022, local purchases at the plant increased by 52.2% compared to the prior year, attributing to the implementation of new technologies, considering absolute figures.

As for responsible sourcing, LIASA guarantees that their commitments aligned with legal requirements in labor, occupational safety, hygiene, environment, and taxes are upheld by their suppliers within the supply chain.

It is for this reason that our company maintains a Supplier Manual, outlining all aspects relevant to the supply and provision of services in our operations, from obligations to quality management processes and vendor relationship improvement.

SUPPLY CHAIN

(GRI 2-6)

LIASA is the first producer of silicon metal in Latin America and requires four primary inputs for production:

Bioreducer:
LIASA utilizes charcoal as a bioreducer in its production process. It also includes wood chips in its cargo to enhance permeability and allow gases to pass through. The company has forest plantations situated in the northern region of Minas Gerais and is actively investing in becoming entirely self-sustainable with regards to wood consumption, while currently purchasing a small amount of bioreducer from local suppliers.

Quartz:
the company sources silicon for producing silicon metal. Any volume not obtained from the company's deposits is procured from local vendors with verified legal and operational suitability. By 2023, the company aims to be 50% self-sustainable in its quartz consumption.

Electricity:
LIASA is part of the largest solar energy park in Latin America. Thanks to the investments made, the company will achieve complete self-sustainability with its own solar energy generation starting in 2023. **Learn more in the chapter Renewable energy.**

Electrodes:
a strategic input facilitates the conduction of energy necessary for chemical reactions in electric arc furnaces. The company maintains a regulating stock to ensure greater production security and seeks long-term negotiations that align with the expectations of the business.

STRATEGIC VENDORS

(GRI 3-3: 308 and 141 Vendor social and environmental performance)

The management of LIASA's supply chain is critical to its competitiveness and sustainability, as the supply of materials and services can significantly impact the economy, environment, and society.

As a result, our contracting evaluations prioritize not only cost-effectiveness, but also sustainable development criteria. Among the factors considered are the increasing utilization of sustainable energy sources, compliance with pertinent regulations, effective quality assurance, efficient waste management, preservation of natural resources, and the partner's contribution to regional development.

In order to achieve these objectives, the company provides legal training to its vendors to ensure compliance with all necessary regulations, while also giving priority to trained vendors when purchasing materials and services.

SUPPLY CRITERIA

(GRI 308-1; 308-2; 414-1; 414-2)

The main responsibilities between LIASA and its vendors are outlined in the Vendor's Manual, General Purchase Conditions, and the contracts agreed upon. These agreements prioritize commitments to conduct, labor relations, pertinent legislation, an anti-corruption policy, a code of ethics, community relations, confidentiality, and the health, safety, and environment.

For sourcing primary materials, we apply Supplier Quality Index (IQF) criteria that consist of clear objectives and targets to assess our business partners. These guidelines are constantly reviewed and updated.

If the raw materials are bioreducers, firewood, or chips, vendors must comply with all provisions of Normative Instruction DAF-005, which outlines the procedures for qualifying potential vendors of bioreducers (charcoal), firewood, or chips. Furthermore, it is imperative that the quartz vendor fully adheres to Normative Instruction DCOM-002, ensuring complete compliance with the procedures for qualifying quartz vendors and purchasing ore.

Moving forward, the company will implement a specialized system for approving, evaluating, and managing suppliers, while also restructuring internal processes to effectively address any identified risks.

In 2021 and 2022, LIASA selected all vendors based on social and environmental criteria.

For social aspects, specific criteria will validate the regularity of vendors during approval/ qualification.

LIASA plans to expand the vendor approval process in 2023 to 37 categories and establish indexes to measure the effectiveness of actions.

All strategically considered vendors are invited to complete a self-assessment form on social and environmental concerns.

ENVIRONMENTAL MANAGEMENT

ENVIRONMENTAL MANAGEMENT

(GRI 2-25)

LIASA's sustainable performance is evident in all its activities, with a strong focus on environmental preservation. To uphold its commitment to operating with excellence, the company constantly works to reduce any negative impacts resulting from its actions.

LIASA's dedication to sustainability sets it apart from competitors. It is the sole producer of **Green Silicon** worldwide. The company's process prioritizes reducing the impact on the planet and favoring renewable energy sources. Responsible management of the value chain is also emphasized, along with promoting the circular economy and actively working to decrease greenhouse gas emissions and increase water savings.

Sustainable innovation has always been a driving force for the company, and the current investments in modernizing the plant are an important step in this direction.

Furthermore, the company advocates for the sustainability of its environment. It acknowledges that working hand in hand with the community promotes both human and economic development. Thus, it promotes practices and initiatives aimed at empowering the local community.

RENEWABLE ENERGY

(GRI 3-3: 302 Energy)

Energy management is key to LIASA's competitiveness and sustainability, as the company always aims to lower operating costs. The use of renewable energy sources for producing silicon metal is also prioritized.

The management of energy is of material importance to the company and is dealt with strategically. The individual targets set for managers in this area are aimed at completing solar energy generation and self-production of bioreducers.

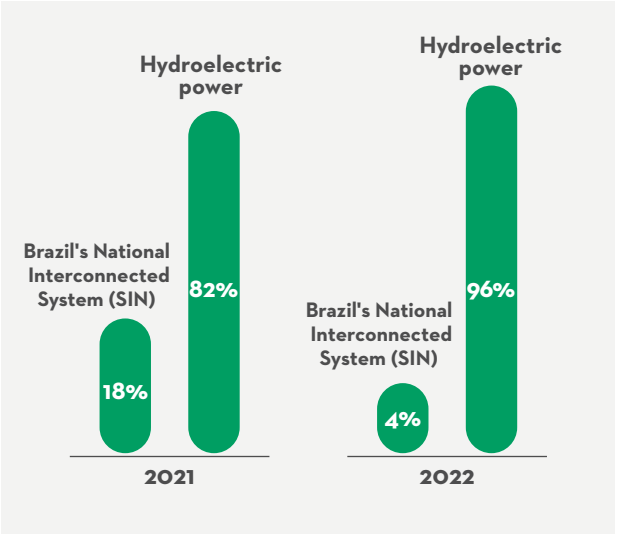
ELECTRICITY

Over the past two years, the majority of LIASA's electricity supply has been sourced from hydroelectric plants.

As a significant stride toward developing a more sustainable and less polluting global power grid, LIASA accomplished all prerequisite measures in 2022 to ensure the self-generation of solar-powered electricity starting in 2023. This bolsters the sustainable attributes of silicon metal production.

Pirapora region is one of the largest solar power parks in Latin America. The solar panels are made with silicon metal, feeding back into the sustainability chain.

Choosing self-production of electricity from solar sources supports the economic and social development of the region by increasing local labor hiring and training.



By 2023, LIASA will solely rely on solar park-generated energy.

BIOREDUCERS

LIASA is a leader in utilizing 100% bioreducers in its production and is striving for increased autonomy in its consumption.

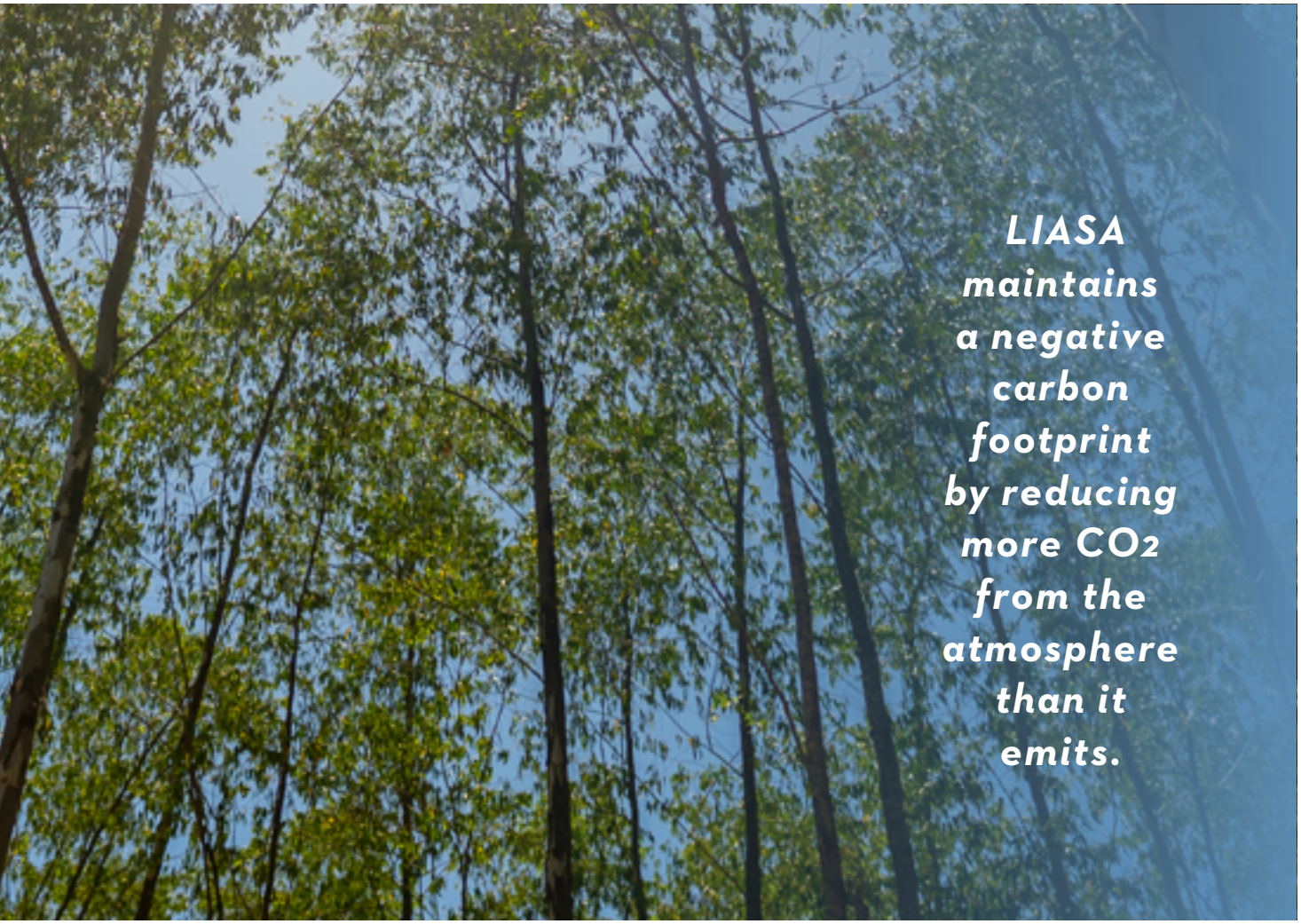
As a key component of its strategy to broaden renewable sources, the company has been growing its self-produced bioreducer supply through its properties consisting of planted forests and forestry assets acquired in the northern region of Minas Gerais. This guarantees that about 80% of its bioreducer consumption is covered by its own charcoal.

LIASA exclusively uses 100% vegetable charcoal to produce Green Silicon.

By expanding its self-production of charcoal, LIASA is taking a vital step towards securing the supply of raw materials for its operations while contributing to the economic and social development of the Pirapora area in northern Minas Gerais.

Additionally, by utilizing renewable energy sources to produce silicon metal, the company is reducing its greenhouse gas emissions and aiding in the preservation of the environment.

For the future, LIASA plans to expand its eucalyptus plantations while also preserving native forests. Operational efficiency improvements are planned to reduce bioreducer, wood, and electricity consumption, which will be achieved by modernizing the furnaces.



AIR QUALITY AND CLIMATE CHANGE

(GRI 3-3: 305 Emissions)

The company, cognizant of the potential impacts its industrial activities can have on the environment and committed to the global effort to combat climate change, has incorporated atmospheric emissions management into all levels of engagement with stakeholders.

Consequently, the 2022 performance was successful, with proposed targets achieved on schedule and even some completed ahead of schedule.

• Installation of dedusting filters: in progress.

• GHG Protocol Silver Seal by 2023: achieved in 2022.

• GHG Protocol Gold Seal by 2024: in progress.

• Removals and storage of CO_2 greater than emission (negative CO_2 footprint): achieved in 2022.

Even the tiny amount of greenhouse gases (GHG) emitted by LIASA's operations are neutralized by removing and storing carbon from the conservation reserves of native forests and its own plantations.

Direct greenhouse gas (GHG)emissions, in tons of CO_2 eq

(GRI 305-1; 305-2; 305-3)

Scope 1		
	2021	2022
Stationary combustion	14,064	14,766
Mobile combustion	303.9	355.8
Fugitive emissions	97.9	194.5
Industrial processes	0	0
Agricultural	160.3	1,435.3
Changes in land use	0	0
Solid waste	0	0
Effluents	0	0
HCFC-22	114.9	0
Scope 1 total	14,741	16,752.6
Biogenic CO_2 emissions	283,573	286,759.2
Scope 2		
Indirect GHG emissions, in tons of CO_2 eq	**2021**	**2022**
Electricity	12,245	1,141.4
Indirect transmission and distribution losses	0	0
Thermal energy purchase	0	0
Scope 2 total	12,245	1,141.40
What is the energy consumption consolidation approach?	Purchase choice	Purchase choice

Note 1: the figures for scope 3 emissions are not yet available. Gases included in the calculation: CO_2, CH_4, N_2O, HFCs, PFCs, SF_6, NF_3, HCFC-22. The parameters, emission factors, and reference sources can be located in the Brazilian GHG Protocol Program's calculation tool. Consolidation approach: Operational control.

Note 2: LIASA adheres to the GHG Protocol publication schedule.

In addition to the presented equivalent emissions, LIASA removed 327,897.4 t CO2eq in 2022, resulting in a negative carbon balance.

The increased usage of renewable electricity led to a significant decrease in scope 2 emissions.

LIASA's planted forests, permanent preservation areas, and native cerrado and Atlantic forest contains a carbon stock of 3,374,726.28 tCO2e.

GHG PROTOCOL SILVER SEAL

In 2022, LIASA earned the Silver Seal in the GHG Protocol after two years of greenhouse gas inventory preparation. This program encourages Brazilian companies to publish, quantify, and manage their GHG emissions utilizing a globally recognized methodology.

The target set for 2023 is to attain the Gold level, with a body accredited by Inmetro verifying its GHG inventory.

WATER AND EFFLUENTS

(GRI 3-3: 303 Water and effluents; GRI 303-1)

Through its Integrated Management Policy, LIASA aims to ensure water resource preservation, minimize waste, optimize processes, and increase employee awareness of the finite nature of these resources.

Water is utilized and recycled in various company processes, including cooling silicon metal production furnaces, washing quartz, and other less intensive processes like washing bearing raceways and charcoal production.

Water withdrawal (in megaliters) (GRI 303-3)		2021	2022
Surface water	Freshwater (total dissolved solids ≤1,000 mg/L)	428.52	422.17
Water from third parties (supply companies)	Freshwater (total dissolved solids ≤1,000 mg/L)	2.33	7.26
Total water withdrawn	**Total**	**430.85**	**429.44**

Note: only fresh water is withdrawn. Surface water from the São Francisco River is collected, and third-party water is provided by the Autonomous Water and Sewerage Service (SAAE) of Pirapora. There is no water withdrawal in areas that are experiencing water stress.

Since 2015, LIASA has implemented a Water Resources Consumption Reduction Program (PRCRH) to mitigate water management concerns. The PRCRH evaluates potential impacts, promotes monthly monitoring, and encourages rational usage of company resources. Additionally, it implements measures to decrease waste, bolster socio-environmental values among staff, and promote behavioral changes.

According to LIASA's Environmental Development Indicator (IDA), which is monitored monthly by the industry and through procedure DRH-006 SGI Indicators, the company tracks and reports water usage to the appropriate entities.

Water consumption (in megaliters) (GRI 303-5)	2021	2022
Water abstraction	430.85	429.435
Water discharge	16.19	23.63
Water consumption	414.66	405.80

The outcome positions LIASA as a leading performer in water resource efficiency within the ferroalloys sector. As per a study by the State Environmental Foundation (FEAM), the production of silicon metal requires specific water consumption between 14 and 16 m^3 per ton of Si. Therefore, LIASA's water consumption practices fall significantly below the industry standard.*

The company plans to modernize its sector-specific water consumption control next year, accelerating gap identification to develop waste reduction and elimination strategies.

The company emphasizes the following pillars to oversee crucial, strategic data for effective water use management:

- Implementing environmental control systems (WTP/WWTP), which enables the recirculation of industrial water.
- Verifying opportunities for improvement.
- Employee awareness.
- Monitoring the average consumption and comparing it to the ferroalloys sector's consumption.

*Source: Levantamento da situação ambiental energética do setor de ferroligas e silício metálico no estado de Minas Gerais. Prospecção de ações para o desenvolvimento sustentável da atividade/Gerência de Desenvolvimento e Apoio Técnico às Atividades Industriais. - Belo Horizonte: Fundação Estadual do Meio Ambiente, 2010. x, 182p.; il.

MINDFUL MANAGEMENT

(GRI 303-2)

After being used in the LIASA operation, the water is taken to the Water Treatment Plants (WTP) where industrial liquid effluents undergo treatment and are recirculated in a completely closed system. This ensures that the effluents are never discharged into streams, rivers or lakes.

The recirculated water is used to cool furnaces in the production system and is captured to compensate for any losses during the process.

Sanitary liquid effluents are sent to the sewage treatment plant located in the municipality of Pirapora.

LIASA recirculates 100% of the effluents generated in its production process.

Water discharge (in megaliters) *(GRI 303-4)*	2021 All areas	2022 All areas
Freshwater (total dissolved solids ≤1,000 mg/L)	16.19	23.63
Total	16.19	23.63

Note: only fresh water is discharged. Effluents are not discharged in water-stressed areas. Only the sanitary liquid effluents produced by the enterprise are gathered and dispatched to the Municipal Sewage Treatment Plant under the Autonomous Water and Sewage Service of Pirapora (MG).

LIASA monitors the input and output of the water treatment and wastewater treatment plants biannually. This process follows the standards and regulations mandated by the pertinent legislation and the industry's environmental license terms. The reputable company contracted to carry out analyses provides technical reports that prove compliance with established standards.

In addition to the Water Resources Consumption Reduction Program (PRCRH), LIASA has created a comprehensive document covering all industry activities and sectors, defining the characteristics of their industrial processes, including water management.

The document outlines actions taken to mitigate potential impacts resulting from company activities and describes controls implemented to properly manage any related issues.

WASTE MANAGEMENT

(GRI 3-3: 306 Waste; GRI 306-1; 306-2)

To strengthen its commitment to proper waste management in its operations, LIASA has signed the UN Global Compact. Furthering this commitment, LIASA conducts assessments and identifies environmentally friendly disposal methods for each type of waste through its Solid Waste Management Program (PGRS). The program also provides guidelines for implementing a management plan to:

• Minimize the generation of waste at the source;

• Segregate correctly at the source of the waste;

• Mitigate risks to the environment;

• Ensure the correct handling and final disposal of the waste generated.

To this end, the company is dedicated to strengthening the circular economy, which aims to keep products, components and materials at their highest level of usefulness and value. In its process, all the fines extracted from production are sold or donated to the community, with full utilization: chip residues are used in agriculture or recycling; coal fines in the cement industry; and quartz for the production of blocks and slabs for rural and urban paving.

In the management of its value chain, the most significant impacts are related to downstream, since the possible incorrect practices of waste disposers could result in potential impacts on the environment.

With regard to waste generated upstream (during the extraction of materials), the internal system for evaluating vendors makes them responsible for their waste.

With effective waste management practices, LIASA aims to decrease water and soil contamination, prevent the spread of diseases, and minimize environmental impacts.

Selective collection, which segregates waste at its source and presents greater possibilities for reuse, is another component of our PGRS. To increase awareness and reinforce the reduction, recycling, and reuse principles, LIASA conducts internal campaigns that educate employees on proper collector segregation.

The properly sorted waste is donated to ASCARPI, the Association of Recyclable Materials Collectors, and COOPRARTE, the Cooperative of Recyclable Materials Collectors, located in Pirapora.

LIASA constantly invests in improving production to reduce waste generation. The company also partners with specialized and certified firms to handle the treatment, recovery/recycling, marketing, and disposal of waste. Environmental criteria, based on current legislation, define the company's strict framework for waste management.

Waste is stored temporarily in a designated area before being sent to specialized firms. The disposal process is dependent on the type of waste.

All of the industrial waste produced in 2022 was sold and transported to an environmentally appropriate facility.

Waste generated by waste composition in metric tons *(GRI 306-3)*	2021	2022	Breakdown of waste composition
Hazardous waste (Class I)	25.05	120.05	Waste contaminated with oil, medical waste, and chemicals.
Non-hazardous waste (Class II)	99,488.80	71,147.13	Waste from the production process.
Non-inert (Class II A)	66,790.22	45,524.30	Used big bags, slag, quartz fines, insulators, ordinary waste, recyclables and scrap metal.
Inert (Class II B)	32,698.58	25,622.83	Rubber, wood shavings, rubble, coal fines, chip fines, plastic and glass.
Total	**99,513.85**	**71,267.18**	

Note: data stems from the daily measurement of discarded materials throughout the advertising cycle. The indicator does not account for the waste generated on farms, which makes up less than 1% of the waste managed in the industry.

Waste that is not intended for disposal by waste composition and recovery operations. *(GRI 306-4)*	2021 Recovery outside the organization	2022 Recovery outside the organization
Hazardous waste (Class I)	5.53	20.11
Preparation for reuse	1.78	3.98
Recycling	3.29	16.14
Other recovery operations	0.46	-
Non-hazardous waste (Class II)	94,005.29	65,490.54
Preparation for reuse	91,366.27	62,098.04
Recycling	2,236.88	3,145.32
Other recovery operations	402.14	247.18
Total	**94,010.82**	**65,510.65**

Note: there are no forms of recovery within the company. Data stems from the daily measurement of discarded materials throughout the advertising cycle.

Waste destined for disposal by waste composition and disposal operations *(GRI 306-5)*	2021 Recovery outside the organization	2022 Recovery outside the organization
Hazardous waste (Class I)	18.32	94.22
Incineration (with energy recovery)	18.32	69.74
Incineration (no energy recovery)	-	24.48
Landfill confinement	-	-
Other disposal operations	-	-
Non-hazardous waste (Class II)	21.72	1,701.13
Incineration (with energy recovery)	6.30	8.80
Incineration (no energy recovery)	-	-
Landfill confinement	15.42	1,691.31
Other disposal operations	-	1.02
Total	**40.04**	**1,795.35**

Note: there are no forms of destination within the company. Data stems from the daily measurement of discarded materials throughout the advertising cycle.

LIASA employs an internal control system to oversee the waste leaving the industry, as per the internal document Normative Instruction DAF-001 - Solid Waste Management Program (PGRS). The data from the Environmental Performance Index affirms the effectiveness and advancements made in waste disposal and marketing, with the objective of surpassing the target of marketing most of the generated waste.

The data gathered from the Environmental Performance Index demonstrates efficient and progressive waste marketing and disposal processes, exceeding the goal of marketing the majority of generated waste.

RESPONSIBLE FOREST MANAGEMENT

(GRI 3-3: 304 Biodiversity)

LIASA constantly carries out the preservation of biodiversity and conservation of native forests through diverse activities on its rural properties.

The company's forest management process is supported by Integrated Management Policy, Environmental Monitoring Program, and Environmental Control Plan documents, along with the UN Global Compact membership.

Managing planted forests is crucial for reducing impact on native forests and carbon recovery, as well as protecting biodiversity and local fauna and flora.

The company executes mitigation and containment measures to manage impacts and protect the environment, safeguarding protected areas and preventing contamination of rivers and soils. These actions also sustain natural ecosystems and conserve water resources.

Operational sites owned, leased or managed in, or adjacent to, environmental protection areas and areas of high biodiversity value located outside environmental protection areas *(GRI 304-1)*

	Geographic location	Surface and underground land that may be owned, leased or managed by the organization	Describe the position of the area in relation to designated environmental protection zones or areas of significant biodiversity located outside of those designated zones	Type of operation (office, manufacturing/ production or extractive operation)	Size of operational unit in km² (or other unit, if appropriate)	Biodiversity value characterized by the attributes of an environmentally protected area or an area of high biodiversity located outside of a protected area	Biodiversity value characterized by presence on protection lists (such as IUCN Protected Area Management Categories, Ramsar Convention, and national legislation)
1	Bocaiúva (MG)	Own	Area of high biodiversity value (inside)	Production	1.715,22 ha	Terrestrial ecosystem	Permanent Preservation Areas (PPPs) and Legal Reserves
2	Bonito de Minas (MG)	Own	Area of high biodiversity value (inside)	Production	2.993,13 ha	Terrestrial ecosystem	Permanent Preservation Areas (PPPs) and Legal Reserves
3	Buritizeiro (MG)	Own	Area of high biodiversity value (inside)	Production	23.213,98 ha	Terrestrial ecosystem	Permanent Preservation Areas (PPPs) and Legal Reserves
4	Diamantina (MG)	Own	Area of high biodiversity value (inside)	Production	92,99 ha	Terrestrial ecosystem	Permanent Preservation Areas (PPPs) and Legal Reserves
5	Gouveia (MG)	Own	Area of high biodiversity value (inside)	Production	1.570,88 ha	Terrestrial ecosystem	Permanent Preservation Areas (PPPs) and Legal Reserves
6	Itacarambi (MG)	Own	Area of high biodiversity value (inside)	Production	448,10 ha	Terrestrial ecosystem	Permanent Preservation Areas (PPPs) and Legal Reserves
7	Serro (MG)	Own	Area of high biodiversity value (inside)	Production	324,18 ha	Terrestrial ecosystem	Permanent Preservation Areas (PPPs) and Legal Reserves

To enhance biodiversity conservation, LIASA conducted research to produce an Environmental Impact Study and an Environmental Control Report. This study aimed to trace the company's environmental impacts, both quantitatively and qualitatively. The findings were then utilized to support the creation of internal programs that are now implemented regularly:

- Flora Monitoring Program.
- Fauna Monitoring Program.
- Social Communication Program.
- Water Resources Monitoring Program.
- Solid Waste Management Program (PGRS).
- Soil and Water Conservation Program.
- Maintenance Program for Agricultural Vehicles and Equipment.
- Forest Fire Prevention and Combat Program.
- Environmental Education Program.

Habitats protected or restored (2022)
(GRI 304-3)

Area identification	State	Country	Biome	Protected/Restored	Habitat area (ha)	Restoration measures have been approved by external experts or adhere to external parameters/protocols
Legal Reserve/PPP	MG	Brazil	Cerrado	Protected	30,034.30	Yes
Legal Reserve/PPP	MG	Brazil	Atlantic Forest	Protected	324.18	Yes

Note: the environmental licenses for several properties have been included, based on the results of their respective environmental studies. Most of these properties are utilized for commercial eucalyptus plantation production and comply with legal regulations regarding legal reserve and permanent preservation areas.

Nature of direct and indirect impacts on biodiversity due to: *(GRI 304-2)*	2022
i. Construction or use of manufacturing plants, mines and transport infrastructure	Direct, permanent, long-term and reversible.
ii. Pollution (introduction of substances that do not naturally occur in the habitat from point and non-point sources)	Indirect, cyclical, long-term and reversible.
iii. Introduction of invasive species, pests and pathogens	Indirect, temporary, long-term and reversible.
iv. Reduction of species	Indirect, temporary, long-term and reversible.
v. Habitat conversion	Direct, permanent, long-term and reversible.
vi. Changes in ecological processes outside the natural range of variation (e.g. salinity or changes in groundwater level)	Indirect, temporary, long-term and reversible.

Note: as per the environmental impact studies for project environmental licensing, irreversible damages indicate significant direct and indirect impacts. Despite the company's best efforts to mitigate actions, it may not be possible to restore the situation to its original condition or close to it.

LIASA currently conducts social and environmental monitoring of its forestry operations. Additionally, it monitors water, flora, and fauna, showcasing the excellent quality of the protected areas.

In industrial operations, evaluations are conducted to create the Environmental Performance Index (IDA) on a monthly basis using procedure DRH-006 SGI Indicators. However, due to the absence of elements associated with industrial activities, there are currently no distinct indicators for biodiversity.

CERTIFICATIONS

LIASA is pursuing FSC Forest Certification and will develop procedures for maintaining protected areas and indicators to show the environmental quality of the sites over time. The company practices good biodiversity conservation and improvement and is continuously enhancing its sustainability strategy to showcase measurable benefits of its operations.

GRI CONTENT INDEX

GRI Standard		Content	Page	Information and/or omission
General disclosures				
The organization and its reporting practices				
GRI 2: General disclosures 2021	2-1	Organizational details	10	Ligas de Alumínio S.A - LIASA - is a privately-held corporation.
GRI 2: General disclosures 2021	2-2	Entities included in the sustainability reporting	10	LIASA has two subsidiaries, COMEL (Comercializadora de Energia LIASA), which sells energy, and Liasa North America (LNA), a United States-based subsidiary.
GRI 2: General disclosures 2021	2-3	Reporting period, frequency and contact point	6	
GRI 2: General disclosures 2021	2-4	Restatements of information		This is LIASA's inaugural report.
GRI 2: General disclosures 2021	2-5	External assurance		As this is our inaugural Sustainability Report, it has not undergone external verification.
Activities and workers				
GRI 2: General disclosures 2021	2-6	Activities, value chain and business relationships	14, 15, 16, 17 and 67	
GRI 2: General disclosures 2021	2-7	Employees	44	
GRI 2: General disclosures 2021	2-8	Workers who are not employees	45	
Governance				
GRI 2: General disclosures 2021	2-9	Governance structure and composition	30, 31, 32, 33	
GRI 2: General disclosures 2021	2-10	Nominating and selecting the highest governance body	30	
GRI 2: General disclosures 2021	2-11	Chair of the highest governance body	32	
GRI 2: General disclosures 2021	2-12	Role of the highest governance body in overseeing the management of impacts		All statements of values, mission, strategies, policies, and objectives of the company are proposed by respective technical areas. These proposals are then coordinated by the ESG Working Group, evaluated and approved by the ESG Committee, and finally reported to the Executive Committee. The Executive Committee oversees the functioning and impacts of these processes bi-weekly due to the fluid nature of decision-making at LIASA.
GRI 2: General disclosures 2021	2-13	Delegation of responsibility for managing impacts	33	
GRI 2: General disclosures 2021	2-14	Role of the highest governance body in sustainability reporting	22	

GRI Standard		Content	Page	Information and/or omission
Governance				
GRI 2: General disclosures 2021	2-15	Conflicts of interest		The formalized instruments used to prevent and mitigate conflicts of interest include committees (decision-making and multidisciplinary bodies), management indicators (provided to all stakeholders and executives), external audits, and *Delegation of Authority* (a matrix distributed in an organizationally structured manner for self-monitoring possible deviations). At the intermediate and operational levels, we utilize the Ombudsman Channel and conduct annual training sessions on the Code of Ethics, Conduct, and Responsibilities. These instruments enable us to address conflicts of interest promptly and directly through senior management when evidence is detected.
GRI 2: General disclosures 2021	2-16	Communication of crucial concerns	35	
GRI 2: General disclosures 2021	2-17	Collective knowledge of highest governance body	32	
GRI 2: General disclosures 2021	2-18	Evaluation of the performance of the highest governance body	34	The evaluation and remuneration process for the Board of Directors has not been disclosed, as there is currently no Board of Directors.
GRI 2: General disclosures 2021	2-19	Remuneration policies	34	The evaluation and remuneration process for the Board of Directors has not been disclosed, as there is currently no Board of Directors.
GRI 2: General disclosures 2021	2-20	Process for determining remuneration	34	The evaluation and remuneration process for the Board of Directors has not been disclosed, as there is currently no Board of Directors.
GRI 2: General disclosures 2021	2-21	Annual total compensation ratio		It will not be disclosed as it is confidential information.
Strategy, policies and practices				
GRI 2: General disclosures 2021	2-22	Statement on sustainable development strategy	4, 5	
GRI 2: General disclosures 2021	2-23	Policy commitments	46	
GRI 2: General disclosures 2021	2-24	Embedding policy commitments	37	
GRI 2: General disclosures 2021	2-25	Processes to repair negative impacts	40, 72	

GRI Standard		Content	Page	Information and/or omission
Strategy, policies and practices				
GRI 2: General disclosures 2021	2-26	Mechanisms for seeking advice and raising concerns	40	
GRI 2: General disclosures 2021	2-27	Compliance with laws and regulations		In 2022, LIASA did not face any significant instances of non-compliance with laws and regulations that resulted in fines or monetary sanctions. Significant situations are considered those that have a substantial social impact, such as on the environment or working conditions, as well as those with penalties exceeding BRL 500,000.00 or that pose high risk to the production process. In 2022, some of the other penalties have been challenged and are still pending, which means they are not yet final. While the fines that are disputed and result in higher costs than the actual payment, like traffic fines, have been resolved, they were not considered significant.
GRI 2: General disclosures 2021	2-28	Membership of associations		To enhance its engagement in the industry and relevant forums, LIASA is a member of the subsequent associations: • ABRAFE: Associação Brasileira de Produtores de Ferro e Ligas de silício metálico [Brazilian Association of Producers of Iron and Silicon Metal Alloys]. • ABRACE: Associação Brasileira de Grandes Consumidores Industriais de Energia e de Consumidores Livre [Brazilian Association of Large Industrial Energy Consumers and Free Consumers]. • AMIF: Associação Mineira da Indústria Florestal [Minas Gerais Forestry Industry Association]. • FIEMG: Federação das Indústrias do Estado de Minas [Federation of Industries of the State of Minas Gerais] • FIESP: Federação das Indústrias do Estado de São Paulo [Federation of Industries of the State of São Paulo].
Stakeholder engagement				
GRI 2: General disclosures 2021	2-29	Approach to stakeholder engagement	26, 50	
GRI 2: General disclosures 2021	2-30	Collective bargaining agreements	44	
Material topics				
GRI 3: Material Topics 2021	3-1	Process to determine material topics	22	
GRI 3: Material Topics 2021	3-2	List of material topics	23	
Community relations and social responsibility				
GRI 3: Material Topics 2021	3-3	Management of material topics	61, 62, 63, 64, 65	
GRI 203: Indirect economic impacts 2016	203-1	Infrastructure investments and services supported	63, 64, 65	
GRI 203: Indirect economic impacts 2016	203-2	Significant indirect economic impacts	63, 64, 65	

GRI Standard	Content		Page	Information and/or omission
Community Relations and Social Responsibility/Responsible Sourcing				
GRI 3: Material Topics 2021	3-3	Management of material topics	66, 67	
GRI 204: Procurement practices 2016	204-1	Proportion of spending on local suppliers	66	
Ethics and Compliance				
GRI 3: Material Topics 2021	3-3	Management of material topics	37	
GRI 205: Anticorruption 2016	205-1	Operations assessed for risks related to corruption	38	
GRI 205: Anticorruption 2016	205-2	Communication and training about anti-corruption policies and procedures	38	
GRI 205: Anticorruption 2016	205-3	Confirmed incidents of corruption and actions taken	38	
Ethics and Compliance				
GRI 3: Material Topics 2021	3-3	Management of material topics	38	
GRI 206: Anti-competitive behavior 2016	206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	38	
Renewable				
GRI 3: Material Topics 2021	3-3	Management of material topics	72, 73, 74	
GRI 302: Energy 2016	302-1	Energy consumption within the organization		The amount is considered strategic for the company and will not be disclosed this year.
GRI 302: Energy 2016	302-2	Energy consumption outside of the organization		Not applicable.
GRI 302: Energy 2016	302-3	Energy intensity		The amount is considered strategic for the company and will not be disclosed this year.
GRI 302: Energy 2016	302-4	Reduction of energy consumption		The amount is considered strategic for the company and will not be disclosed this year.
GRI 302: Energy 2016	302-5	Reductions in energy requirements for products and services		The amount is considered strategic for the company and will not be disclosed this year.

GRI Standard		Content	Page	Information and/or omission
Water and effluents				
GRI 3: Material Topics 2021	3-3	Management of material topics	78, 79	
GRI 303: Water and effluents 2018	303-1	Interactions with water as a shared resource	78, 79	
GRI 303: Water and effluents 2018	303-2	Management of water discharge-related impacts	80	
GRI 303: Water and effluents 2018	303-3	Water abstraction	78	
GRI 303: Water and effluents 2018	303-4	Water discharge	80	
GRI 303: Water and effluents 2018	303-5	Water consumption	78	
Forest management				
GRI 3: Material Topics 2021	3-3	Management of material topics	84	
GRI 304: Biodiversity 2016	304-1	Operational sites owned, leased or managed in, or adjacent to, environmental protection areas and areas of high biodiversity value located outside environmental protection areas	84	
GRI 304: Biodiversity 2016	304-2	Significant impacts of activities, products and services on biodiversity	87	
GRI 304: Biodiversity 2016	304-3	Protected or restored habitats	85	
GRI 304: Biodiversity 2016	304-4	IUCN red list species and national conservation list species with habitats located in areas affected by the company's operations		The data has been identified during the monitoring of flora and fauna, but has not yet been categorized for the report. In the following years, we will gather the necessary information required to compile the indicator's data.
Emissions				
GRI 3: Material Topics 2021	3-3	Management of material topics	75	
GRI 305: Emissions 2016	305-1	Direct emissions (Scope 1) of greenhouse gases (GHG)	76	
GRI 305: Emissions 2016	305-2	Indirect emissions (Scope 2) of greenhouse gases (GHG) resulting from the acquisition of power	76	
GRI 305: Emissions 2016	305-3	Other indirect emissions (Scope 3) of greenhouse gases (GHG)	76	

GRI Standard		Content	Page	Information and/or omission
Emissions				
GRI 305: Emissions 2016	305-4	Intensity of greenhouse gas emissions (GHG)		This indicator is not currently monitored by the company but will be included in the next cycle.
GRI 305: Emissions 2016	305-5	Reduction of greenhouse gas emissions		This indicator is not currently monitored by the company but will be included in the next cycle.
GRI 305: Emissions 2016	305-6	Emissions of ozone-depleting substances (ODS)		Not applicable.
GRI 305: Emissions 2016	305-7	Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions		Bearing in mind that not all the filters had been implemented in 2022, we will post information on this subject in the next report.
Waste and tailings management				
GRI 3: Material Topics 2021	3-3	Management of material topics	81	
GRI 306: Waste 2020	306-1	Waste generation and significant waste-related impacts	81	
GRI 306: Waste 2020	306-2	Management of significant waste-related impacts	81	
GRI 306: Waste 2020	306-3	Waste generated	82	
GRI 306: Waste 2020	306-4	Waste not destined for final disposal	82	
GRI 306: Waste 2020	306-5	Waste destined for final disposal	83	
Responsible supply				
GRI 3: Material Topics 2021	3-3	Management of material topics	67, 68	
GRI 308: Supplier environmental assessment 2016	308-1	New suppliers that were screened using environmental criteria	68	
GRI 308: Supplier environmental assessment 2016	308-2	Negative environmental impacts in the supply chain and measures taken	68	
Employee quality of life and dignity at work				
GRI 3: Material Topics 2021	3-3	Management of material topics	46, 47	
GRI 401: Employment 2016	401-1	New employee hires and employee turnover	46, 47	
GRI 401: Employment 2016	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	48	
GRI 401: Employment 2016	401-3	Parental leave		Data not verified by the company.

GRI Standard		Content	Page	Information and/or omission
Occupational Health and Safety				
GRI 3: Material Topics 2021	3-3	Management of material topics	54, 55, 56, 57, 59	
GRI 403: Occupational health and safety 2018	403-1	Occupational health and safety management system	55	
GRI 403: Occupational health and safety 2018	403-2	Hazard identification, risk assessment, and incident investigation	55	
GRI 403: Occupational health and safety 2018	403-3	Occupational health services	59	
GRI 403: Occupational health and safety 2018	403-4	Participation of workers, consultation and communication to workers regarding health and safety at work	55, 56	
GRI 403: Occupational health and safety 2018	403-5	Worker training on occupational health and safety	55	
GRI 403: Occupational health and safety 2018	403-6	Promotion of worker health	59	
GRI 403: Occupational health and safety 2018	403-7	Prevention and mitigation of health and safety impacts directly linked to business relationships	55	
GRI 403: Occupational health and safety 2018	403-8	Workers covered by an occupational health and safety management system	54	
GRI 403: Occupational health and safety 2018	403-9	Workplace accidents		It will not be disclosed as it is confidential information.
GRI 403: Occupational health and safety 2018	403-10	Occupational diseases	59	

GRI Standard		Content	Page	Information and/or omission
Employee quality of life and dignity at work				
GRI 3: Material Topics 2021	3-3	Management of material topics	48, 49	
GRI 404: Training and education 2016	404-1	Average hours of training per year per employee	48	
GRI 404: Training and education 2016	404-2	Programs for upgrading employee skills and transition assistance programs	48, 49	
GRI 404: Training and education 2016	404-3	Percentage of employees receiving regular performance and career development reviews	50	
Diversity and equal opportunity				
GRI 3: Material Topics 2021	3-3	Management of material topics	52	
GRI 405: Diversity and Equal Opportunity 2016	405-1	Diversity in governance bodies and employees	53	
GRI 405: Diversity and Equal Opportunity 2016	405-2	Ratio of basic salary and remuneration of women to men		It will not be disclosed as it is confidential information.
Diversity and equal opportunity				
GRI 3: Material Topics 2021	3-3	Management of material topics	52	
GRI 406: Non-discrimination 2016	406-1	Incidents of discrimination and corrective actions taken	52	
Community relations and social responsibility				
GRI 3: Material Topics 2021	3-3	Management of material topics	60	
GRI 413: Local communities 2016	413-1	Operations with engagement, impact assessments, and development programs focused on the local community	61	
GRI 413: Local communities 2016	413-2	Operations with significant – actual and potential – adverse impacts on local communities	63, 64, 65	

GRI Standard		Content	Page	Information and/or omission
Responsible supply				
GRI 3: Material Topics 2021	3-3	Management of material topics	67, 68	
GRI 414: Supplier social assessment 2016	414-1	New suppliers that were screened using social criteria	68	
GRI 414: Supplier social assessment 2016	414-2	Negative social impacts in the supply chain and measures taken	68	
Governance				
GRI 3: Material Topics 2021	3-3	Management of material topics	30	
Adapting governance to the IBGC Best Practices Code (2024)	LS-01	% of suitable items/total applicable items		By 2024, the indicator aims to measure the compliance of governance with the Code of Good Practices established by the Brazilian Institute of Corporate Governance (IBGC). This will be done by calculating the percentage of items that adhere to the code. Currently, this information is unavailable, but the aim is to obtain this figure for the next cycle.

Material topics without corresponding GRI indicators			
Customer satisfaction and product quality			
GRI 3: Material Topics 2021	3-3	Management of material topics	18
Customer satisfaction rate	LS-02	Customer satisfaction rate	18
Complaints responded to	LS-03	% of complaints responded to/total received	18
Innovation and patents			
GRI 3: Material Topics 2021	3-3	Management of material topics	19
Investment in R&D	LS-04	% of revenue allocated to R&D	19

EDITORIAL STAFF

Publication by Ligas de Alumínio S.A - LIASA

Phones: (31) 3249 2000 | (38) 3749 6700

COORDINATION

Ionara Pontes
Managing, Finance and ESG

Daniel Cerqueira
Senior New Business Specialist

Adriana Fonseca
Communication and Social Responsibility Coordinator

GRI CONSULTING

ELEVATE Limited

Luana Ambrósio
Advisor

EDITORIAL & GRAPHIC DESIGN

BH Press Comunicação

Lívia Maia Leão and Bárbara Miranda
Texts

Dulcemar da Costa
Editing

Fábio Xavier and Bruno Andrade
Design

PHOTOGRAPHY

LIASA Archives

Hitech Vídeo Produtora

Ronan Rocha
Photographer

www.liasa.com.br