

# MINASLIGAS

Commitment | Efficiency | Quality

**ESG Positioning Report** 



#### **Presentation**

# Welcome to the first Minasligas ESG Positioning Report.



Minasligas is proud to bring to its community a story of its trajectory, from the foundation to the present day, from the perspective of sustainability, and to present its performance within the ESG theme: Environmental, Social and Governance. A commitment to the development of the organization, the ferroalloy sector, the entire production chain, the region in which it operates, society and the country.

Despite this commitment being rooted in the history and values of the organization, it was in the year 2021 that all of this began to be strategically structured in an ESG Agenda. It is the result of this construction that this report presents, demonstrating how the most relevant topics on our agenda are deployed in actions and projects, in data that prove responsible and sustainable performance, in an integrated management of all the factors that make our product differentiated in the marketplace.

As it is the first document published by Minasligas with an ESG focus, this report provides relevant and consolidated data for the year 2021, but is not limited to information relating to a specific period, covering a large part of the company's history.

In the first chapter, the report presents the identity of Minasligas, with its history, business model and products, investment strategies. Next, the ESG Strategy and social responsibility are the focus of chapter 2. The third chapter discusses Minasligas' commitment to Sustainable Development, detailing the performance and management related to each of the Organization's Material Themes. Finally, the last chapter brings Minasligas' commitment to the future, reporting the company's strategies and visions to perpetuate its values and purpose and address the main challenges we will face in preserving our life and our world.

We invite the reader to walk this journey with us, along the paths already experienced and those yet to come.

**Enjoy the reading!** 

#### **LEADERSHIP MESSAGE**

# For Minasligas, ESG is a journey that will take us to even better places as an organization and as a society.

Throughout the history of Minasligas, some of the main focuses of the sustainable agenda and what we now know as ESG pillars (environmental, social and governance) have been under our gaze and our actions.

Even before recognizing these positions as an important agenda for the whole world, or the market and society demanding more responsible practices in relation to environmental, social and business governance aspects, at Minasligas we were already dedicated to various actions and decisions that formed the character of the company we are today, prepared to grow in a world where it is no longer possible not to be sustainable.

Within this history of Minasligas performance, we have always been concerned with the social development of the regions in which we have operations and we have given financial support to numerous social projects over the years. Recent examples are the support given to the Instituto Mano Down, which enabled the construction of the organization's new headquarters; and in the investment made in health, in the fight against Covid-19. After the emergency phase of the pandemic was over, our investment also helped to supply hospitals with essential equipment to improve the lives of the population in the regions where we operate.

In the environmental field, the contribution that Minasligas brings to the reduction of negative impacts and emissions also precedes market demands and legal requirements. In 1990, we started installing our dedusting system to reduce the volume of particulate matter that is released by the electric furnaces in our industrial production. The waste generated in this process is collected and properly treated at Minasligas. And from it we extract Microsilica, a by-product that we sell to the concrete and refractory industries.

From the moment the effects of global warming began to be felt more by everyone, organizations began to be demanded by stakeholders in relation to the adoption of good climate practices, such as zero carbon, energy efficiency and reduction of atmospheric emissions. We were already on this path, drawing up continuous plans to improve the company's processes and assets. As we are an electro-intensive industry, that is, we depend on a large amount of energy to produce, our targets cannot be based on reducing energy, as this would imply a reduction in the pace of production. We then focused on energy efficiency, seeking the optimized consumption of resources. For this to happen, investment and care are redoubled, both in the conservation and updating of systems, and in the contribution of technology. Currently, we are dedicated to studying the adaptations necessary for us to enter Industry 4.0, with more efficient equipment and advanced artificial intelligence. In this way, we will be able to contribute even more to various aspects of sustainability, such as the environment and occupational health and safety.

We also invest in obtaining renewable electricity, in wind and solar farms, in addition to prioritizing hydraulic generation in our current energy contracts. Brazil and its natural riches provide us with good conditions to maintain a clean and sustainable energy matrix, and this has to be leveraged.

The use of charcoal as a bioreducer for our furnaces is part of our matrix. And that's why we invest in planting and maintaining our own forest massifs to supply the bioreducer. In this area, we rely on the superiority of Brazilian knowledge in clones selected for the cultivation of planted forests, as well as techniques adapted to the current challenges of the climate and the need for greater productivity. We have internal working groups and participate in research groups linked to academic institutions, focused on this theme, which invest in planting already thinking about climate change — today inevitable — with species that are more resilient to periods of prolonged drought and water stress.

Today, we understand that each of these steps we have taken along our path — in relation to social and environmental investments and in the institution of good governance that could prepare our company for future generations — made us a stronger and longer-lasting organization, more prepared for the challenges of today's world, more sustainable.

This vision that we already had of each of the separate ESG pillars can, today, be unified in a very well structured, planned and implemented strategy — as are all Minasligas processes, since we value operational efficiency in everything we do. ESG will become part of our IGM (Integrated Management System), and will be deployed throughout the organizational structure of Minasligas. For this, we are creating a Sustainability Management that will contemplate the environmental, social and governance pillars in all our processes and systems.

The ESG and Sustainability pillars must also be the basis for our Board of Directors' decision-making processes. At the Board, we already perceive this agenda as extremely important for understanding and planning for the future. To know where we are and, from there, decide where we want to go.

We understand that there is a path to be followed in order to reach that place of the future that we seek, in which we will have a more mature, audited and stable system in terms of sustainability. A future that can bring us a great international competitive advantage, mitigating risks, providing access to special credit lines for responsible companies, opening up opportunities to operate in increasingly demanding markets, which corresponds to the demands of a society that needs new prospects for a more prosperous world. Minasligas is on this journey, and we will not stop, moving forward.

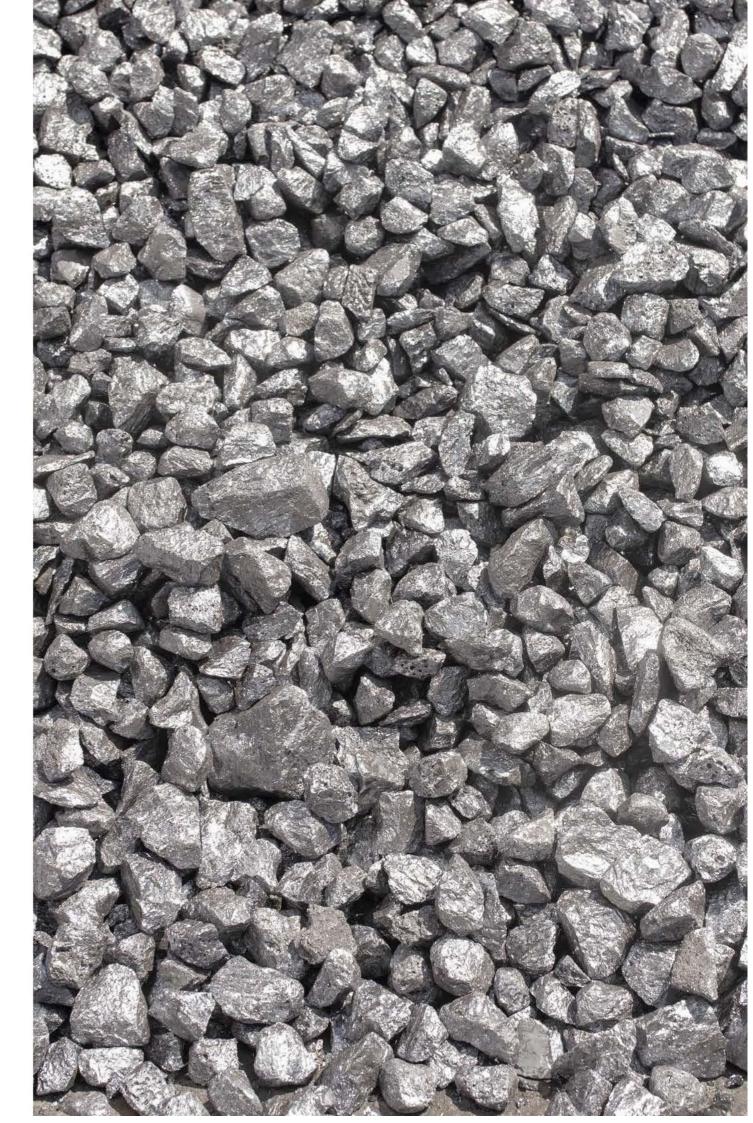




### **Table of Contents**

**MINASLIGAS IDENTITY** 

About Us History Business Investment Strategy Integrated Management System Economic Development	09 10 12 16 19 20
SUSTAINABILITY MANAGEMENT	
ESG Strategy Social Responsibility	25 30
COMMITMENT TO SUSTAINABLE	
DEVELOPMENT	
COMMITMENT TO THE ORGANIZATION DEVELOPMENT Governance and Compliance People Management Health and occupational safety	36 37 41 51
COMMITMENT TO THE ORGANIZATION DEVELOPMENT Governance and Compliance People Management	37 41
COMMITMENT TO THE ORGANIZATION DEVELOPMENT Governance and Compliance People Management Health and occupational safety  COMMITMENT TO SUSTAINABLE PRODUCTION Efficient and Safe Production Differentiation through Green Production	37 41 51 56 60 62



#### **ABOUT US**

With more than four decades of operation in the national and international market, Minasligas is one of the largest producers of Ferro Silicon, Silicon Metal and Microsilica in Brazil.

More than a family business, we are a family. Since 1980, we have worked to meet market demands, diversify our businesses, expand production capacity and improve our processes, always honoring our commitment to our employees, community, customers, suppliers, shareholders, governments and everyone who is part of our history.

At first it was just one furnace and a lot of work. From then on, we took shape, diversified our products and, with each passing day, we gained more market share. Today, there are already eight furnaces in our factory in Pirapora, reforestation farms in the northern region of Minas Gerais and in the city of Três Marias, in addition to the corporate office in Belo Horizonte, all in Minas Gerais.

It was thus, with a lot of boldness, organization, dedication and persistence that, today, we offer our products to companies in various segments, inside and outside Brazil.

Minasligas' success is the result of a combination of important factors: entrepreneurship and business management knowledge of the founders and successors, the technical quality of our teams, the professionalism and passion of our employees for what they do. This is the bond that maintains our essence and the values of our company, to serve our customers better every day and fulfill our role in society with commitment, efficiency and quality.



#### **HISTORY**

In the 1970s, three visionary and entrepreneurial men decided to unite and found a business that, with dedication and hard work, became much more than a family business. It brought growth and prosperity not only to the business family, but also to the employees, the community and the regions in which it operates.

Founders: José Rodrigo Machado Zica, Paulo Cezar Fialho and Tadeu Machado Zica.

1971

1975

1978

Constitution of the Company FERRONORTE, in Montes Claros/MG.

Share transfer to the current group Cia. Ferroligas Minas Gerais – Minasligas (today production unit in the industrial Minasligas SA), in Pirapora/MG.

Started construction of the district of Pirapora/MG.

1980

On 03/14 the productive activities were started

The production capacity, with only one furnace, was 35 tons/day or 12 thousand tons/year of 75% Ferro Silicon. After the first year of operation, an expansion project included the installation of three new furnaces, increasing production capacity to 48 thousand tons/year.

1985

1988

of Ferro Silicon.

Expansion of the production capacity Production diversification with Silicon Metal

The construction of the 5th furnace increased production capacity by 8 thousand tons/year.

1990

1996

1998

and installation of the first dedusting capacity of Silicon Metal, after the

installation of the 6th furnace.

Implementation of ERP-SAP.

1999

First ISO 9001 Quality Certification

The Certification brought a competitive differential in relation to our competitors and quality for our

2000

Furnaces modernization project

The project increased the power of the furnaces from 15 MVA to 18.75 MVA, which increased the production capacity of Ferro Silicon 75% to 60,000 t/year and Silicon Metal to 20,000 t/year.



2003

Historic milestone of 1 million tons produced

At 3:30 pm on May 30, 2003, with six furnaces in operation, Minasligas reached the mark of 1 million tons of ferro silicon and silicon metal produced.

2006

Implementation of the Environmental Management System

Completion of the dedusting installations in the raw material unloading areas.

2011

7th and 8th furnaces came into operation

The expansion to 8 furnaces totaled the installed capacity of 150 MVA and allowed the annual production of up to 60 thousand tons/year of ferro silicon 75% and 40 thousand tons/year of silicon metal, in addition to a significant volume of microsilica.

2012

2018

2021

OHSAS 18001 Certificate

Installation of Microsilica treatment/densification systems ISO installations. 45001 Certification.

Completion of the dedusting filter

2022

ISO14001 and ISO 14064 Certifications

#### **EVALUATION**



#### **Guiding principles of our** business

**Purpose** 

Produce and sell Silicon and its alloys with quality, meeting the needs of its customers, shareholders and employees, with socio-environmental responsibility and corporate governance.

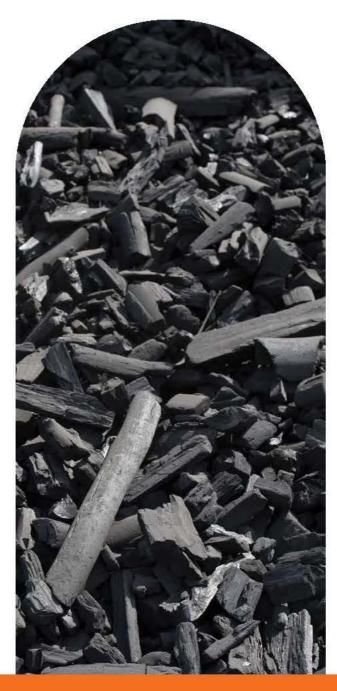
Vision

Overcome the main global competitors of excellence, with an engaged team, maximizing financial results, evaluated based on the following indicators:

- Productivity
- Quality
- **Competitive Costs**
- Safety and Sustainability
- Personnel Management
- Sell well (volume and margin)

**Values** 

Compromising Integrity Loyalty Quality Safety



As an important step towards the sustainability of our business, we have made commitments and directed our actions towards:

The continuous search for maintaining and improving the quality of our products and processes - by controlling changes, risks and opportunities – so that they are always compatible with the needs and demands of the market;

The development of mechanisms for continuous improvement of risk controls related to occupational health and safety, in order to ensure the physical and mental integrity of the worker and the engagement of all our employees in this purpose;

The protection of the environment, prevention of pollution and reduction of the probability of risks associated with environmental impacts;

Compliance with legislation and all requirements applicable to our business.





**Lower Cost** 



**Product quality** reliability



Compliance with ESG

development and quality



Punctual deliveries



Ongoing people development

best practices

New product



#### **Ferro Silicon**

Ferro Silicon is composed of iron, silicon and other minor elements.

It is used as an alloying element for the production of carbon steel, special steels and cast iron products that are present in our daily lives, such as cars, rebar, steel tubes, electric motors, metallic structures in general, transformers and power generators.

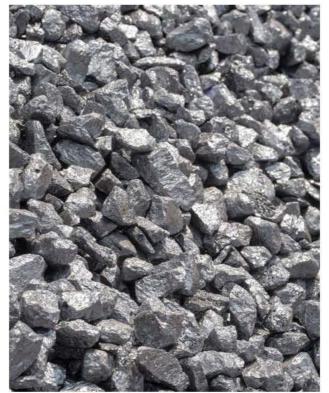


At Minasligas, two grades of Ferro Silicon are produced:

#### **75% Ferro Silicon STANDARD**

#### **75% Ferro Silicon HIGH PURITY**

Alloy with 75% silicon and approximately 24% iron. Alloy with 75% silicon and approximately 24% iron. However, in this product the elements Al, Ca, Ti and C have a lower concentration compared to the Standard product.



#### **Silicon Metal**

Silicon Metal is obtained by carbothermic reduction of silicon sources (quartz) in electric submerged arc furnaces.

It is used in the chemical and technological industry, in the production of industrial and medicinal silicone, in addition to chips for computers, smartphones and in the development of products based on aluminum alloys.

#### Microsilica

Microsilica is an amorphous variety of silica, which is formed in the production process of Ferro Silicon and Silicon Metal. Part of the gas rises to the top of the electric furnace, reacting with oxygen in the atmosphere and generating Microsilica, which is collected in the filters for treating the gases effluent from the furnaces.

Microsilica is a useful raw material for the concrete, ceramic and refractory industry, improving the physical properties of these products.



#### **INVESTMENT STRATEGY**

Over the years, Minasligas has been investing to remain among the main global competitors in its segment.

Our investments seek to modernize processes and facilities, using state-of-the-art equipment and technologies to optimize our quality and productivity, always prioritizing operational efficiency, safety and sustainability.

#### INVESTMENTS IN FACILITIES AND EQUIPMENT

Minasligas continuously invests in its factory, from the modernization of laboratory equipment, machinery and industrial equipment, to the increase in power of the furnace transformers, in addition to the implementation of the furnace dedusting and Microsilica densification systems.

R\$ 20 million in 2021



Completion of the atmospheric emissions control project, comprising the dedusting system for the electric furnaces used to produce ferro silicon and the microsilica treatment system collected in bag filters, enabling the correct commercial disposal of this material.



Installation of a modern access and weighing system, which optimizes weighing and control procedures for our products, inputs and raw materials.



Installation of a new Ferro Silicon Crushing Dedusting System.



Installation of the thermal shield system in all furnaces in the company's production sector, at the level of the load chopping operation.

In addition, equipment, machines and vehicles were replaced and important physical spaces to provide the best working conditions for our employees were renovated, such as the canteen, cafeteria, auditorium, Gremil and other facilities.

#### INVESTMENT IN THE FOREST AREA

Having sustainability as one of our strategic objectives, Minasligas maintains a permanent investment program in planting and maintaining forest massifs for its own supply of charcoal and firewood. This gives us a competitive advantage in the market, as our carbon footprint is reduced compared to our competitors.

Each year we improve the quality of our reforestation projects in the north of Minas Gerais, using mechanized techniques

R\$ 3/

for planting and harvesting, with better yields and high productivity rates, in addition to the continuous use of actions for environmental preservation.

The mechanization and modernization of bioreducer (charcoal) production, aiming to improve the efficiency and safety of the process, were possible with the construction of high-productivity rectangular furnaces, equipped with monitoring systems for the carbonization process in the Carbonization Plants (PLC).



Expansion and modernization of Carbonization Plants (PLC);



Investments in Eucalyptus Forests;



Higher volume of planting and maintenance of forests.

#### Research & Development in the forest area

Minasligas invests in research and development to improve its production processes in its forestry activities, aiming at increasing productivity and adapting clonal material to the conditions of each region where the company's silviculture operations are carried out.

million in 2021

One of the partners in this forest-based research initiative is the Sociedade de Investigação Florestal - SIF, from the Federal University of Viçosa. Together with (SIF/UFV), Minasligas participates in a project composed of 15 companies from the planted forest sector, with the objective of developing genotypes with tolerance to water stress, which present productivity similar to the materials currently available on the market. For the purposes of study and investigation, for more than four years Minasligas has made available an area with a high degree of water stress and semi-arid characteristics, located in the municipalities of Buritizeiro/MG and João Pinheiro/MG, for testing this more tolerant genotype.

The result of the research will enable the development of new materials for planting in regions of our country and generate opportunities to increase the forestry base in line with our sustainable development objectives.

As a member of the Associação Brasileira dos Produtores de Ferroligas e de Silício Metálico (ABRAFE), Minasligas also participates in GT Ferroligas (ABRAFE/SIF), which brings together specialists in the use of bioreducers for the production of iron alloys and silicon metal, with the aim of develop best practices and promote the exchange of experiences and knowledge between the productive sector and academia.

Besides, we rely on the continuous monitoring of consultants specialized in continuous improvements in forestry, in the cultural practices of the forest massifs and in the carbonization processes.

#### INVESTMENTS IN ENVIRONMENTAL PRESERVATION

Much more than meet the environmental legislation and the legal requirements necessary for operations, Minasligas' investment strategy has a commitment to the environment.

Continuous environmental investments have been made in our industrial area since 2004, mainly in emission control, such as dedusting equipment with bag filters and waste treatment and disposal. In addition, we invest in constant environmental monitoring, compliance with legislation and observation of good environmental practices in the market.

Important investments are also made in employee training and in environmental education initiatives in the community.

We still obtain many ecosystem benefits associated with the eucalyptus forestry activity and its native forest protection areas, which add both to the preservation of the physical and biotic environments and also contribute to the maintenance of the climate by removing CO<sub>2</sub> from the atmosphere.



#### **INTEGRATED MANAGEMENT SYSTEM**

#### The IMS covers:

- governance and organizational structure, roles and responsibilities, competencies and capabilities;
- legal, financial, technological, economic and stakeholder issues, whether nationally or internationally, internally or externally;
- monitoring and critical analysis of each of the organization's stakeholders, in order to maintain products and processes that meet their demands and needs;
- compliance with the context and control of risks and opportunities;
- the involvement, commitment and training of employees, within the required skills;
- the control and prevention of the health and safety of employees;
- the control of environmental conditions related to air quality, availability of natural resources, soil contamination, among others;
- the search for continuous improvement in all internal processes of the organization.

The management of Minasligas established an Integrated Management System (IMS) – in line with the requirements of the ISO 9001:2015, ISO 14001:2015 and ISO 45001:2018 standards – which is considered a highly relevant tool for the company's sustainability and for the good practices in governance and management.

The IMS provides a structural base of support for Minasligas' ESG agenda. In the environment aspect, it is the IMS that integrates all controls related to the prevention, reduction and compensation of possible impacts caused by the operation.

With regard to social aspects, the IMS coordinates the guidelines relating to the health and safety of employees and monitors training and professional development actions, relationship with the community, among others. As far as governance is concerned, the IMS coordinates legal and structural issues related to risk management and environmental management.



#### **ECONOMIC DEVELOPMENT**

The productive and financial solidity of Minasligas allowed the organization to overcome the period of instability in the national and international macroeconomic scenario of the years 2020/2021 and its main obstacles, such as the Covid 19 pandemic, inflation of logistics costs and a drop in global economic activity.

Even with this unfavorable scenario, we were able to overcome the challenges imposed, with hard work and commitment, serving our customers and promoting safety for our employees.

Products	Production (ton)	
	2020	2021
Ferro Silicon	75,099	63,528
Silicon Metal	18,466	30,494
Microsilica	10,754	12,783
	Values (thousand R\$)	
Economic-Financial Performance	Values (tho	usand R\$)
	Values (tho	usand R\$)
Performance	2020	2021



TOTAL:

R\$ 23,947 thousand

#### **SUSTAINABILITY MANAGEMENT**

We are a company that values sustainability and socioenvironmental responsibility.

We take close care of the production process and everything necessary to reduce our impacts on nature and the community, with respect for environmental and labor laws and human rights.

We believe that our growth is directly related to our investment in the development and well-being of employees, in the care for health and safety in their functions, in the promotion of the development of the communities in the region where we operate, in the constant search for quality in the service to our customers and in the good relationship with our suppliers.



 $^{22}$ 

#### ESG: a new way of thinking about business



We are, more and more, facing great challenges for the future of humanity. Questions about the environment and climate change, about society and human rights, about production and consumption. We create more and more awareness about all the factors that involve life on this planet and we seek solutions that help us overcome so many challenges. Solutions need to involve everyone. They include the responsibility of governments, organizations, both public and private, and organized civil society. In the case of companies, solutions are increasingly proposed using the acronym ESG:

Environmental Social Governance



When we understand all the dimensions of ESG, we realize that a company's success and prosperity are not limited to economic-financial performance, or compliance with its legal obligations.

The company needs to generate positive results for its partners and shareholders, for the environment and society.

It needs to have a decision-making structure that is transparent, ethical and aligned with the interests of all those who have a relationship with the business, the so-called stakeholders: employees, community, customers, suppliers, shareholders, financial institutions, governments and public institutions and society in general.

New market rules are also emerging, in line with these concerns. Companies that do not fit into this new perspective are increasingly at risk of losing customers, losing credit and financing possibilities, among other aspects that may even compromise the sustainability and viability of maintaining their businesses.

#### **ESG** at Minasligas

We are also part of this context. The market and the reality we live in are already giving us this message. Regardless, we have always been aware of our commitment to sustainable development. But now even stronger and more engaged to seek to improve our results in all these areas.

We know the importance of always seeking our best performance, whether in the economic, social or environmental fields. This is fundamental to the success of our business.

#### **ESG Strategy**

In 2021 we started working on building our ESG Strategy. With the support of WATU Ambipar-VG, a consulting company specializing in the subject, we established an internal ESG Working Group (WG), composed of representatives from the various sectors and areas of the company.

The ESG WG acted in the search for more knowledge about the dimensions of ESG and in the definition of important issues such as our benchmarking, the company's ESG maturity level, the stakeholders and priority ODS for the conformation of our ESG Agenda.

Based on surveys carried out with our stakeholders, we built an action plan for the Minasligas ESG Agenda that will further enhance our results. One of the consolidation points of this plan is the publication of this document, our first **ESG Minasligas Positioning Report.** 



# 7 ENERGIA LIMPA E ACESSÍVEL

#### **SDGs PRIORITIZATION**

One of the first actions in the work of building and directing our ESG strategy was to understand which are the priority Sustainable **Development Goals for our** organization.

#### **UN 2030 AGENDA**

The challenge of the Sustainable Development Goals belongs to everyone. We are also committed to the SDGs. For this, we have already evaluated our ability to contribute within the 17 SDGs. The Sustainable Development Goals – SDGs – are 17 objectives established by the UN – United Nations – as fundamental so that we can establish, with everyone's help, a better and more sustainable world to live in.

In 2015, UN member countries, including Brazil, assumed these targets and their 169 global goals as commitments so that, by 2030, we can try to end world poverty, protect the planet and ensure that all people enjoy peace and prosperity.

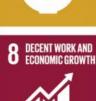
Without having to exclude any of the objectives from our radar, we seek to work with the SDGs in order to prioritize those that have a more direct interaction with our business. Thus, in our assessment, we realize that the contribution can be made at three different levels:





(0)































#### Level 1:

GREATER possibility of direct contribution

SDG 9: Industry, Innovation and Infrastructure;

SDG 12: Responsible Consumption and Production;

SDG 7: Affordable and Clean Energy

Minasligas' strategic focus is strongly linked to responsible industrial production, always striving for Product Quality, Operational Efficiency and the Safety of its employees. As it is an electro-intensive industry, accessible, clean and low-cost electricity is directly linked to the pillar of operational efficiency, which also sets us apart in the market for "green" production.

#### Level 3:

Possibility of indirect contribution

SDG 6: Clean Water and Sanitation:

SDG 16: Peace, Justice and Effective Institutions; SDG 17: Partnerships and Means of Implementation;

SDG 10: Reduction of Inequalities

SDG 3: Health and Well-Being;

SDG 1: No Poverty; SDG 4: Quality Education;

SDG 5: Gender Equality;

In the other SDGs selected as relevant, we believe that we can also generate impacts and contributions with a perspective of indirect action, with the possibility of including other actions in the future.

#### Level 2:

Possibility of direct contribution

SDG 13: Action Against Global Climate Change;

SDG 15: Terrestrial Life;

SDG 8: Decent Work and Economic Growth

Minasligas is aligned with the need (at a global level) for access to clean and renewable energy, mainly to avoid emissions that cause climate change.

The company uses charcoal from planted forests as one of its main raw materials, whether in its own areas or those belonging to third parties. Its forests form a mosaic with areas of native vegetation in the Cerrado of Minas Gerais, generating environmental benefits, such as the protection of its various natural resources.

The energy matrix used by Minasligas is predominantly hydraulic and renewable. This contributes to our being a zero carbon institution. In addition, the company has always valued the dignity of its employees' work, ensured health and safety in their functions and promoted development and economic growth in the region where it operates. These represent the pillars for the growth and sustainability of Minasligas' businesses.

#### **CONSTRUCTION OF MATERIALITY**

What social, environmental and governance issues should we prioritize in our business?

Talking about materiality is touching on what makes the most sense for our company: what topics should we focus on to improve our performance? Those that are most important to us and our stakeholders and, therefore, should be prioritized.

In order to build our ESG Materiality, we have gone a good way, in a process that helped us to point out, together with our stakeholders, what are our priorities in environmental, social and governance issues – that is, how we make our business decisions.

In order to define these themes, we carried out extensive research work in our sector of activity. We also spoke with employees, strategic partners (customers, suppliers, investors, communities, governments) and company shareholders. This survey, besides to helping define priority topics, also helped us define how we can work.



#### Our material themes:



Health and Safety in our operations



Efficient and safe production ensuring product quality for customers



People management including employees and contractors





Governance and Compliance make decisions and follow all legal prerogatives and good conduct



Electricity
use clean and competitive energy in our operations



"Green" production cleaner and with less carbon emissions

#### **BUILDING AN ESG AGENDA**

From the definition of ESG Minasligas Materiality, we arrived at the time to build the strategic direction of internal management of our prioritized material topics.

Our agenda now consists of assessing our performance on these topics and thus defining targets and indicators, based on the reading of global ESG assessment platforms (such as GRI, CDP, SASB, B3, Dow Jones), and building internal processes that make us further advance in the strategic and sustainable conduct of our business, especially in the ESG aspects.

Another important work that is under development is the Stakeholder Engagement Strategy. The next steps of this project and of the other processes that involve our ESG Strategy are reported in Chapter 4 – Commitment to the Future.

#### **SOCIAL RESPONSIBILITY**

Since our founding, in addition to investments in infrastructure, human resources and technology, we have also invested in social responsibility initiatives and practices, sponsoring and supporting programs in the areas of:

Education of children and adolescents

Culture

Health

Human and community development

Sports

# PROJECTS FUNDED BY MINASLIGAS

It has always been a Minasligas principle to ensure that our activities do not compromise the environment or the lives of the communities where we operate, prioritizing the well-being, health and development of the people around us, inside and outside the company.

Therefore, we encourage and support several projects through the Culture Incentive Law - Rouanet, the Fund for Children's and Adolescents' Rights (FIA), the Municipal Fund for the Elderly and the Sports Incentive Federal Law.

2021/2022 Tax Incentive



2021

29 supported projects

11 projects in the Rouanet Law

10 projects in the Childhood and Adolescence Fund

4 projects in the Municipal Fund for the Elderly

4 projects in the Sports Incentive Federal
Law

More than 45,000 people impacted

Total investment amount:

R\$ 2,216,109.00

10 municipalities benefited Pirapora, Contagem, Três Marias, Belo Horizonte, Padre Carvalho, Betim, Nova Lima, Buritizeiro, João Pinheiro, Ibirité

2022

Minasligas is one of the supporters of 43 projects that, together, impact the lives of more than 600,000 people:

16 projects in the Rouanet Law

13 projects in the Childhood and Adolescence Fund

8 projects in the Municipal Fund for the Elderly

6 projects in the Sports Incentive Federal

Total investment amount: R\$

9,092,812.21

10 municipalities benefited Pirapora, Contagem, Três Marias, Belo Horizonte, Salvador, Ibirité, Santa Luzia, Buritizeiro, João Pinheiro, Rubelita

#### **HUB SOCIAL PARTNERSHIP**



In 2021, Minasligas started a partnership with Hub Social, an incubator and accelerator of social projects. The process includes some steps ranging from training people to design projects, to the dissemination of the public notice, selection, evaluation and monitoring of projects.

With the help of the Hub Social, we directed incentives to projects linked to the areas of culture, sports, children and adolescents, in the cities of Pirapora, Padre Carvalho, Belo Horizonte and Contagem.

Using the Fundo do Idoso, we also allocate resources to Lar dos Idosos Divina Providência and Casa do Caminho, providing improvements in the physical structure in order to offer quality of life and well-being to the elderly sheltered in these institutions.

All initiatives are directly aligned with corporate strategies and illustrate Minasligas' commitment to the growth and development of partner institutions and communities covered by the projects, which represents a very significant social gain for all involved.

The Social Balance, published annually by Minasligas, includes our main social actions in these areas.

Access the 2021 Social Report here.



# CERTIFICADO SOCIAL A Privator de 194. Reza, cravas da Sancias Municipio de Javaderico y Principio Socia, de Cambri Minigel dos Devide Campo de Adeletros y Privato Agranda Color, de Cambri Minigel dos Devide Campo de Adeletros y Privato Agranda Color, de PRODUCAS MINIS CERSAS MINISTRAS. A reporse como con principio privato privato privato por la filhació e Adelectros e 194. Considerado de Campo Campo Color, de Districto de Adelectros e 194. Considerado de Campo Campo Campo de Campo Camp

#### "Child-Friendly Company" SEAL

Since 2016, the Municipal Councils for Children and Adolescents (CMDCA) in the municipalities in our area of operation have recognized Minasligas as a Child-Friendly Company. The recognition, unprecedented, is due to several actions carried out - donations, support and incentives that provided protection to the rights of children and adolescents and even encouraged education - not only with the Councils but also together with the various institutions that work for childhood and that are partners of Minasligas.

# HEALTHCARE DONATIONS

Due to the delicate and atypical moment that we are experiencing all over the world, with the Covid-19 pandemic, since 2020 Minasligas has mobilized to invest resources in health, in order to make a difference for the populations of the cities and communities where it operates.



#### **Action in the Fight against Covid-19**

#### Donation of hospital beds and equipment

During the first two years of the Covid-19 pandemic, the entire world needed the maximum mobilization of governments, private initiative and society to treat patients infected by the Coronavirus. Among the various initiatives carried out, partnerships between public authorities and private organizations were established for the installation of field hospitals in the main cities of Brazil.

For the assembly of the field hospital in Belo Horizonte, MG, Minasligas made a financial contribution of R\$ 3 million. The agreement entered into with the state government provided that, upon demobilization of the hospital, the value would be returned to the company in the form of hospital equipment, which would then be donated to hospitals in Belo Horizonte and in the northern region of Minas Gerais, in the cities where Minasligas has operations.

In Belo Horizonte, the Hospital Luxemburgo, which houses the Instituto Mário Penna, focused on cancer treatment, received equipment and furniture for 9 beds in the Intensive Care Unit (ICU) and 20 beds in the infirmary. The beds were used in the treatment of Covid-19 at first. Today, they serve all areas of the hospital, especially oncology.



From left to right: Governor Zema; President of Fiemg; Flavio Roscoe Deputy Governor Paulo Brant; Minasligas CEO Henrique Simões Zica

The hospitals of Buritizeiro, Grão Mogol, João Pinheiro, Pirapora, Salinas, Taiobeiras and Três Marias received 28 ICU beds, in complete sets of equipment for 14 rooms.



The Fundação Hospitalar Moisés Magalhães Freire, in Pirapora, was one of the main care centers in its microregion for Covid-19 patients, with the help of the municipal and state Health Secretariats and private organizations such as Minasligas.

After the emergency period of the pandemic, the hospital is renovating an Intensive Care Unit (ICU) and planning to expand the entire Emergency Room. The equipment brought by Minasligas are fundamental pieces in this expansion of the structure and care for patients in the region.

"The participation of Minasligas in our hospital is historic and is not limited to the emergency of the Covid-19 pandemic. The company has already carried out the renovation and expansion of several sectors of the Hospital."

Farley Meira - Hospital Administrative Director

Hospital Municipal Dr. Rodolfo Malard, in Buritizeiro, already had a shortage of furniture, equipment and infrastructure in general, since before the pandemic, which only got worse in the most critical period. The hospital treated low-complexity cases, but the large waves of hospitalizations were only supported because of donations made by companies such as Minasligas.

Today, donated equipment and furniture are very important for the functioning of the Semi-ICU, which takes care of serious cases before being sent to Pirapora. The benefit for the region's population of nearly 30,000 people is enormous, especially in outbreaks of endemic diseases such as dengue.

"The sum of public transfers and donations is what makes us able to work with a little more tranquility and dignity for the population."

Bruno Santos - Hospital Director

In the Hospital Municipal Dr. Oswaldo Prediliano Santana, in Salinas, there was no Adult ICU until before the pandemic. Physicians needed to regulate patients in the outpatient clinic and then refer them to larger hospitals in the region. Many outcomes were negative due to lack of care infrastructure.

With the donation of hospital beds and respirators, the care of patients with Covid has become possible during the worst moments of the pandemic. After that period, they were finally able to set up an Adult ICU that meets a high demand and is always at 80% occupancy, since the city is on the side of a busy highway, with a large number of accidents.

"During the pandemic, we were able to set up a Covid ICU that helped even larger cities, which were without capacity."

Laiane Medeiros Ramos Lima – Hospital Director

In April 2021, with the start of the national campaign "United by the Vaccine", which sought to ensure vaccination of all Brazilians against Covid-19, we decided to also dedicate ourselves to this cause and donated essential items for vaccination in the cities of Pirapora and Buritizeiro.

Syringes and needles of various specifications, boxes for cutting material and other materials were sent, among other materials necessary for municipalities to stay in tune with the National Immunization Program and be able to carry out well-structured actions to serve the population.

 $\mathbf{3}$ 

# COMMITMENT TO SUSTAINABLE DEVELOPMENT

Minasligas has a strong commitment to sustainable development, existing since the beginning of our history, although with other names, focuses and themes worked on.

Today, we understand that all our actions, programs and initiatives already demonstrate concern for people, products, the production process, the planet and the future. But they can be even more focused, effective and bring relevant impacts to the environment, society and the governance of organizations (ours and our stakeholders).

It is through our actions – and not just speech – that we demonstrate, every day, our commitment to sustainable development.

In this ESG Positioning report, we have chosen to report our commitment and actions according to our material topics, newly selected to compose our ESG Strategy. In this way, we demonstrate our Commitment to the Organization Development, describing how we understand and how we carry out actions and programs in Governance and Compliance, People Management and Health and Safety.

Our Commitment to Sustainable Production is reflected in our concern for Efficient and Safe Production, with Differentiation through Green Production and with our actions for a good energy management.



#### **COMMITMENT TO THE ORGANIZATION DEVELOPMENT**

#### **GOVERNANCE AND COMPLIANCE**

Corporation (S.A.) with multi-family control, Minasligas understands that the path to becoming a perennial institution passes through Corporate and Family Governance.

The first generation, made up of the three founders, was fundamental in the process of consolidating the current Governance Structure as it sponsored the training of the second generation to assume their role, both as partners and managers.



#### **Minasligas Team**

921 own employees

+505 outsourced (2021)

+8.8% compared to 2020



#### **Benefits for Employees**

- Profit sharing program Food Voucher
- Hospital Medical Assistance / Dental Plan
- Life InsuranceSports and Leisure Club



#### **Qualification and Training**

15 beneficiaries with scholarships in the Training Incentive Program

21.76 hours/employee

Training Program in 2021



#### **Diversity and Inclusion**

37 hires

of people with disabilities

Mano Down

Partnership with the Institute



#### **Health and Well-Being**

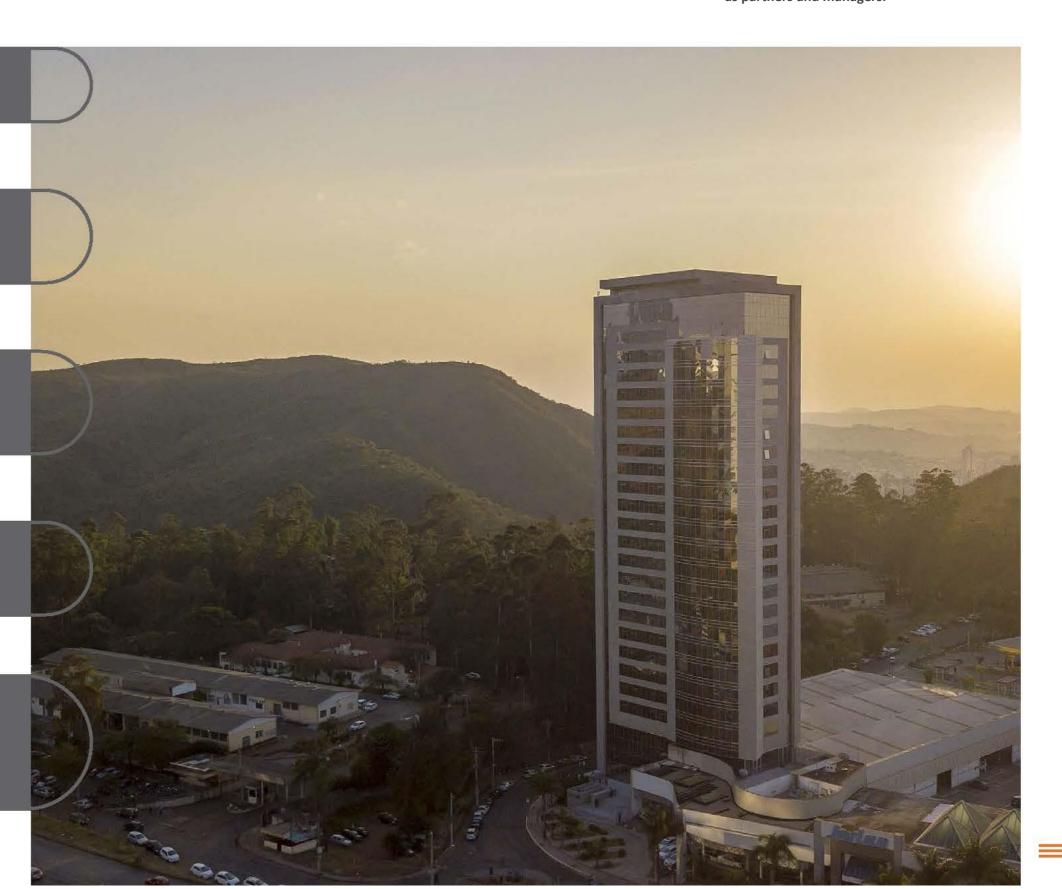
333 employees registered in the VIK ML Se Move Program

+ 6,300

+24,000

kilometers traveled

(between walks, runs, cycles)



#### **ORGANIZATIONAL STRUCTURE**

The organizational structure of Minasligas has a company increasingly sustainable and prepared governance system that seeks to guarantee the for the future. company's perpetuity, which respects the family's values, history and contribution to the Today the company has two councils, the organization's development, while creating the professional environment necessary for us to be Directors, which govern its activities and define competitive and modern with the market. We seek the direction of the organization. The two bodies to structure the organization by giving openness are the guardians and responsible for preserving and space for the engagement and participation of stakeholders in our main processes, guiding the purpose of Minasligas, as well as its values, mission steps that make the

Corporate Family Council and the Board of and periodically updating the strategy and and vision.



#### The Corporate Family Council

outlines society's strategies, harmonizing the spheres of family, assets and business.



#### The Board of Directors

it is composed of 2 independent members and 3 members of the shareholding control (family members). The members of the Board of Directors have terms of office of 2 years. All members of this highest decision-making body of the organization are chosen because they have high qualifications and extensive knowledge of the subjects necessary for the company's business, especially those strategic ones related to environmental, social and governance issues.

CRISTIANA SIMÕES TADEU MACHADO ZICA GÉO

President of the Council

**ZICA** 

Council

**VALE MOTA** Counselor

**DE MELO** Counselor

HENRIQUE SIMÕES HAROLDO MOURA MAURICIO BICALHO ZICA



#### **Executive Board**



In the executive management structure, the Executive Board is led by the Chief Executive Officer (who is also a member of the Board of Directors) and is composed of three other directors, who manage the company's operations in their respective areas: Industrial, Commercial and Administrative/Financial.

**HENRIQUE SIMÕES ZICA** 

Chief Executive Officer

**ÁTILA BENITO PIMENTA RODRIGUES Industrial Officer** 

**FELIPE SIMÕES ZICA** Commercial Officer

**MARCELO FARNEZI VELLOSO** Financial Administrative

Officer

being led by the Commercial Officer and leader of the the Board of Directors.

The Board of Directors, in turn, considers the ESG agenda to be of high strategic relevance.

The implementation of the ESG project at Minasligas is All its members have extensive knowledge of important matters for directing the business, especially those ESG Working Group, Felipe Simões Zica, who reports on related to environmental, social and governance issues, the evolution of the project and the strategic aspects of which are also updated through workshops and training. the company's sustainability to senior management and Thus, the Board of Directors can carefully monitor the evolution of the ESG implementation project, with frequent interactions, contributions and directions.

#### CORPORATE INTEGRITY

Minasligas is in line with current legislation, valuing integrity in the relationship with its partner customers and suppliers, faithfully complying with the regulatory laws of our country, repudiating unethical practices, corruption and bribery, or any action that means a breach of trust in our value chain.

The code of ethics was restructured in 2020, becoming the Code of Ethics and Conduct, which defines how we relate to society, employees, customers, suppliers, shareholders and other stakeholders linked to our business.

The Compliance program enables transparency and mitigation of risks involved in our activities.

All our employees receive annual training on the Code of Ethics and Conduct, the Anti-Corruption Policy and the fight against discrimination. And our business partners are periodically communicated about anticorruption policies and procedures, in addition to signing contracts that have anti-corruption clauses as an important part of the treated content.

We have established a Privacy Policy that seeks to clarify to holders the ways in which their data may be used, to whom they may be made available and how we work to ensure that they are always protected.

The company is certified by ISO 9001, ISO 45001 and **ISO 14001.** To guarantee the fidelity of the processes, we continuously rely on internal and external audits.

#### **HUMAN RIGHTS**

Aware of its social responsibility, Minasligas believes that a company can only reach the future in a society where human rights are protected and respected.

Therefore, we invest in ensuring equal opportunities and non-discrimination, whether by sex, origin, race, color, marital status, family status, disability, age, or any other form perceived as discriminatory. What we seek is to promote the health, safety and well-being of all workers.

It is the company's policy not to tolerate abusive and Minasligas is also committed to respecting indigenous humiliating behavior, expressed by gestures, words or and tribal peoples and aligning its conduct, demanding attitudes that harm the physical and mental integrity of the same from its employees and contractors, to meet the individual, characterizing moral harassment. the requirements and principles contained in ILO Behaviors that characterize sexual harassment are also Convention 169, referring to these populations. not tolerated.

Minasligas does not get involved or support work apply the highest standard of human rights, whenever activities for children under 16 years of age in respect there is a difference between national laws and for children's rights, expressed in Resolution 146 of the ILO – International Labor Organization – and in the ECA perform services free of charge as a condition of being practicing the search for continuous improvement. hired.

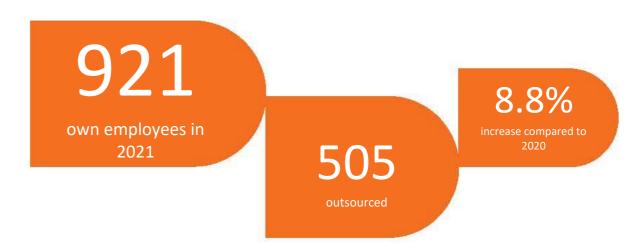
We advise everyone involved in our activities to always international human rights standards.

present in our work environment are apprentices and chain, we practice responsible purchasing, in which do not carry out activities in places subject to danger suppliers and third parties must follow Minasligas (real or presumed). The company also does not support policies, ensure the transparency of its processes, forced labor and human trafficking. Workers must never prioritize human rights, abhor slave and child labor, have their documents withheld, be forced to pay or respect diversity and provide inclusion, in addition to



#### STAFF MANAGEMENT

#### OUR PEOPLE, OUR STRENGTH



#### COMPOSITION OF MINASLIGAS TEAM<sup>1</sup>

#### Representative Profile by Location



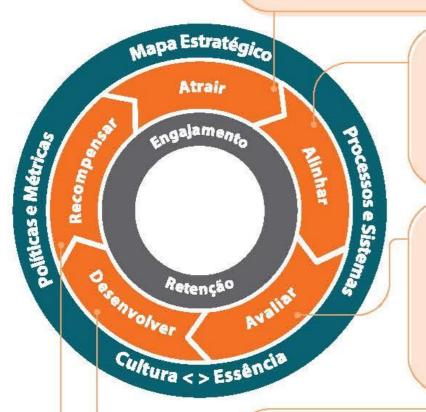
Representative Profile by Gender

92% Men 8% Women

1 - Data from December 2021.

#### STRATEGIC PEOPLE MANAGEMENT

**Attract**: Minasligas is looking for professionals who balance skills, delivery and attitudes, who have potential for the future, aiming at high organizational performance and the perpetuity of the business.



Align: Through actions and programs, we engage our employees in terms of culture, purpose, vision, values and code of ethics with institutional guidelines, strengthening the Minasligas team and the pride of belonging.

Assess: We monitor the performance of our team using a performance evaluation system, aligned with the desired behavior and the deliveries made. We promote an open dialogue, contributing to a culture of high performance and continuous development.

**Develop:** Minasligas believes in the evolution of each employee who builds our history. We offer technical, behavioral, safety and quality training, stimulating individual and team development.

**Reward**: Minasligas recognizes and rewards professionals, providing opportunities for these people to grow in direct reason to their results, seeking transparency and meritocracy.

#### Benefits for Employees

- Profit sharing program according to goals agreed annually in the Profit Sharing Agreement.
- Food Voucher
- Mospital Medical Assistance / Dental Plan
- Life Insurance Covered by Prudential Seguros
- Sport and Leisure Club in the city of Pirapora with excellent infrastructure.
- Training Incentive Program
- School material kits for employees and their families
- Christmas kits
- Flu vaccination campaign
- Monthly themed disease prevention and life promotion campaigns



## School material kit – Another benefit for Minasligas employees

We believe so much in the power of education for personal and professional development and for building a better future, that we seek to encourage studies since childhood. Every year, Minasligas delivers school kits to employees' children, aged between 3 and 18 years old. In the most recent delivery action<sup>2</sup>, 905 kits were made available to children and adolescents, in all locations where Minasligas operates.



2 - Occurred in February 2022.

43 =

#### **STRATEGIC SKILLS**

Minasligas has six core competences that guide the work guidelines of the Strategic People Management. Through them, it is possible to manage people in line with the company's strategic planning. Each competency has three expected behaviors per hierarchical level, in order to better guide the development of the employee and the entire team in their deliveries.



PIONEERING AND INNOVATION IN BUILDING THE FUTURE It is the capacity to identify opportunities for the business, in a systemic way. It means anticipating trends, developing an eye for what is new, being open to changes. It is acting in an integrated way, believing that together we can build a bigger dream.



MARKET VISION AND ATTENTION TO CUSTOMERS

It is having a market-oriented vision, satisfying the needs of its customers, demonstrating the ability to relate to diverse audiences that are strategic for the business. It is the ability to establish innovative, differentiated and transformative partnerships, capturing opportunities for business growth.



SUSTAINABLE MANAGEMENT

It is the ability to establish an integrated management system aimed at the growth of Minasligas, respecting all stakeholders and with socio-environmental responsibility. It is the generation of results, based on discipline in the use of Minasligas management methods in the constant search for zero accidents.



RELATIONSHIP AND TEAMWORK

It is the ability to relate to others in a transparent, respectful and cordial manner, inside and outside the company, creating a cooperative environment for teamwork. It is the ability to be assertive in his/her statements, providing all the necessary information, knowing how to deal with disagreements and sharing knowledge and experiences.



EFFICIENCY IN PROCESSES

It is the ability to achieve maximum efficiency in the application of resources, based on an integrated view of processes. It is the quest to optimize its efficiency and performance indicators, through continuous improvement and process control.



INSPIRE, ENGAGE AND DEVELOP PEOPLE

Is the leader who inspires by personal example, transmitting confidence to his/her team, influencing it to reach individual and global goals. It means keeping a close eye on his/her team's behavior and working so that it is aligned with the company's values. It makes Minasligas a desirable company to work for.

#### **DEVELOPMENT PROGRAMS**

In the Strategic People Management, several programs and actions are carried out for the professional development of the Minasligas team, both individually and collectively.



#### Feedback Ágil

Tool available on a digital platform, allows the leader to offer constant feedback on their professional performance.

In 2020, a new version of Feedback Ágil, called Minascoins, was implemented. With an engagement purpose, the **Feedback Ágil Minascoins** seeks to encourage leaders to send feedback continuously and motivate employees to make increasingly significant deliveries by receiving recurring and reasoned feedback regarding their performance. With each feedback given, virtual coins are distributed, both for the leader who gave it and for the leader who received it. The platform shows the feedback and coins received in real time on each employee's timeline, enabling greater agility and interaction between leader and subordinate.

#### Eleve Avaliação de Performance

People management tool that Minasligas uses to evaluate the performance of its employees, measuring the level of potential and performance of a professional or a team in relation to the company as a whole, aligning Organizational Strategies. It also offers managers a systemic view of their team's performance and provides professional development. The Performance Assessment is carried out on an HR Tech Platform, with an agile, consistent methodology and a friendly interface.





#### **Individual Development Plan (IDP)**

Set of practical actions designed to accelerate individual development and contribute to professional growth and maturity. The IDP is designed to reduce gaps, engage and empower professionals through self-management. From Specialists to Management level, all employees, at the end of a performance evaluation cycle, have their IDP to develop during the year.

#### **Circle of Knowledge**

At the operational level, the learning process takes place in the Circle do Knowledge project, a Collective Development Plan that works with the teams on topics necessary for the development of organizational skills that are in greater demand. In 2021, the teams worked on the topics Revolution 4.0, VUCA World, Agile Methodologies and Innovation.



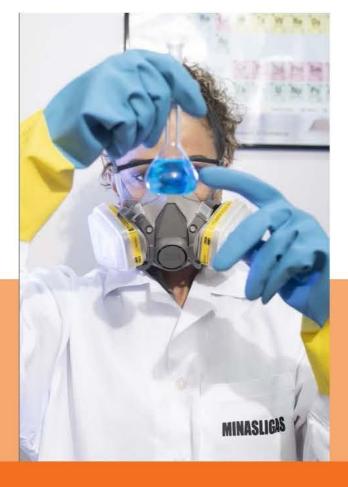


#### **Leaders Academy / Teams Academy**

Development actions for leaders and teams are carried out, including: assessment, feedback, Individual Development Plan (IDP) and Cycles of Development Workshops.

#### **Innovation/Improvement Projects**

Using agile methodologies such as OKR (Objectives and Key Results) and working with multidisciplinary teams, innovation and improvement projects are carried out, with a focus on learning and on better control and analysis practices.



#### TRAINING AND QUALIFICATION

Minasligas supports employees who want to expand and improve their knowledge and is aware of the importance of education. We believe that qualification in an educational institution brings a more complete vision. That is why we are committed to training and encouraging our employees to seek knowledge.

Aware of the importance that education has throughout life, we are committed to the continuous development of our professionals.

**Training Incentive Program** – In 2021, ten new employees received a scholarship from the Training Incentive Program, which benefits employees with a subsidy of up to 70% of the cost of the course. The Program has 15 active people.

**Training Program** – The company has a training matrix, with the training track that each employee needs to complete, according to the position they occupy. In 2022, HR is implementing, through Digital HR, the LMS (Learning Management System) platform, where all trails are launched at Minasligas Academy and, from 2023, will be released for use and online training for all employees.

The trainings are classified in: Mandatory, Technical and Behavioral Training. In the Annual Training Plan, the implementation of each one of them is foreseen, in all sectors of Minasligas.

In 2021, our factory employees underwent an average of 21.76 H/Man of training over the year.



#### **DIGITAL TRANSFORMATION**

Minasligas is always evolving. In the era of digital transformation, our team could not be left behind. Therefore, new technologies were implemented to make the Human Resources area increasingly up-to-date:

RH com Você Portal – in the Gen.te Mobile application, the employee can consult and update his/her registration data, have access to his/her payment statements, income information, follow up and request his/her vacations, have information about his/her health and food benefits in real time. The aim is to bring more agility and information in real time to the employee, in addition to facilitating the daily procedures of HR.

**WI-FI Expansion** — Continuing with investments in technology, we expanded our WI-FI Network at the farms and factory, to make our team increasingly engaged and connected, with agility and security.



# EFFECTIVE DIVERSITY AND INCLUSION

The inclusion of all citizens in the world of work, so that everyone can take part in building our society, is an important issue for Minasligas.

Therefore, hiring 37 people with disabilities (PWD) is an integral part of our social responsibility. Our Inclusion program evaluates and directs the person to the vacancy claimed, always seeking to provide opportunities for the development of their skills through adaptations in the function, environment and work tools. These actions promote conditions that meet the needs of the person so that he/she can successfully perform the most varied functions.

In addition, we seek to promote an inclusive organizational culture, with guidelines established in the Code of Ethics and in the People Management Manual. We carry out internal training aimed at qualifying and employing PWDs and we maintain partnerships with civil society organizations and other stakeholders to effectively induce diversity and inclusion in society.

#### **Partnership with Instituto Mano Down**

"The Instituto Mano Down believes in the ability of all human beings to learn and evolve. Our golden circle shows what we offer and what we believe is essential to improve the lives of people with intellectual disabilities, to welcome their families and contribute to a better and more inclusive world. To build a more inclusive and fair society we need a lot of support and partners.



to help renovate the new headquarters of Instituto Mano Down, in Belo Horizonte/MG. We also support the Mano Down Arte e Cultura pela Cidadania project, through the Culture Incentive Law (Rouanet Law).

Minasligas is one of the biggest partners of Instituto Mano Down. Since 2018, it effectively supports us and believes in our values. In addition to financial aid, which is very important, Minasligas leadership understands that the company's role goes beyond the internal public. The biggest support it gives us is opening up events with employees, hiring people with intellectual disabilities, actively listening to projects and ideas.

In all the contacts we had with the company, we left better and more motivated to apply what we dreamed and believed. It is an honor to have a long-term partner that works concretely to replace the word exclusion with opportunities".

Leonardo Gontijo President of Instituto Mano Down

#### **OCCUPATIONAL SAFETY AND HEALTH**

Occupational Health and Safety management at Minasligas is characterized by actions and values aimed at improving employee behavior in carrying out tasks, preventing accidents during activities and operations and promoting a safe and healthy environment for everyone.

Since 2012, Minasligas has been certified under the OHSAS18001 standard, which attests to the reduction of accident rates, health promotion and employee satisfaction.

#### **Employee health: one of Minasligas' commitments**

# OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT

In addition to complying with the legislation and all the requirements applicable to our activity, we are constantly developing continuous improvement mechanisms that promote the control of risks related to occupational health and safety, in order to maintain the physical and mental integrity of the worker, counting on with the engagement of all employees, receiving and passing on information with transparency, speed and impartiality.

The Occupational Health and Safety Management System was implemented based on the Integrated Management System (IMS) guidelines, which establish the management of legal requirements, risks and opportunities, the survey of hazards and damages and the management of changes.

The IMS also establishes the control of Risk Behavior Observations (RBOs) that aim to help reduce the number of incidents within the company, directing actions to minimize critical behaviors that occur more frequently. The RBOs are preventive — not punitive — and seek to highlight situations related to social factors that can increase the risk of incidents.

There is an emergency extension in the company exclusively for Occupational Health and Safety that responds to any emergency. It also serves as a channel for suggestions and reports of risk situations, and all employees are instructed to use it, whether they identify themselves or not.

# OCCUPATIONAL HEALTH AND SAFETY (OHS) ACTIONS

#### Internal Committee for the Accidents Prevention (CIPA)

CIPA holds monthly meetings and provides periodic training for its members.

#### Fire Brigade

Conducts training and drills, with the help of the Military Fire Department.

#### Internal Occupational Accident Prevention Week (SIPAT) and Internal Rural Worker Accident Prevention Week (SIPATR)

Events held for health promotion and accident prevention, with lectures, physical evaluations, follow-ups with health professionals and referrals.

#### Zero Accident Program (PAZ)

The program was created in 2008 under the name Campeonato de Segurança and became PAZ in 2009. The main objective is to help reduce the number of incidents within the company, directing actions towards the critical behaviors that occur most frequently due to unsafe acts by employees, which, in most cases, are related to the human factor (capabilities, behaviors, attitudes, temperament). The company's operational and risk sectors were divided into teams that, in healthy competition, dispute who makes the fewest mistakes in the month. In 2022, some changes are being made to the program to ensure its evolution.

#### **AWARENESS PROGRAMS**



#### White January

The campaign is an initiative to raise awareness among employees about mental health, recently incorporated into the official calendar of Minasligas activities. The goal is to make people aware of mental and emotional health care, seeking ways to live well and with quality of life. The month of January was chosen for the cultural symbology it represents, being the first month of the year, a moment of many possibilities, of starting over, of doing things differently, of thinking about new life projects.

#### **Yellow May**

In May, Minasligas holds a traffic event together with other companies and public agencies, in which it produces videos with the special participation of employees to be published on social networks, raising awareness about traffic safety.



#### **Pink October**

In October, there is an awareness campaign on female self-care, especially in relation to breast cancer prevention and emotional well-being.

#### **BEM-ESTAR PROGRAM**

The quality of life program implemented at Minasligas in 2021 aims to promote physical, psychological and social well-being, providing a better quality of life for our employees, inside and outside the work environment. The initiative, which adds to existing actions, is based on six pillars: the physical, psychological, independence, environment, social relationships and beliefs, involving professionals in the areas of health, safety, psychology and Human Resources from the company.

#### The Bem-Estar program aims to:

- Develop healthier habits and more conscious professionals;
- Reduce the levels of stress generated by everyday life;
- Decrease the likelihood of illness;
- Increase general well-being;
- Stimulate the motivation of employees in their routines.





Within the Bem-Estar Program, a Health Management Committee was implemented in 2021, focused on issues and treatments related to the prevention of Covid-19.

#### **VIK ML Se Move Program**

Minasligas implemented the ML Se Move Program, using the VIK application platform, to encourage employees to carry out a physical exercise routine, circumventing a sedentary lifestyle and avoiding various illnesses and physical injuries due to lack of activity and mobility.



The VIK App has several modalities for the employee to choose the one that pleases him/her the most, such as VIK FIT, classes on the platform, virtual gym, etc. in addition to numerous functionalities to maintain the interest and constancy of the exercises, such as the VIK Bonus that scores points for practiced activity.

To make employees even more enthusiastic, teams were formed to carry out a healthy competition and see who got the most points at the end.

Jadilson works at Minasligas' reforestation farms. Until recently, he complained of body aches, sleepless nights and constant health problems. I believed that all this was the fault of a heavy work routine and little rest. But he thought he wouldn't be able to fit physical activities into his daily life, traveling between farms. When he accepted the challenge of participating in the ML Se Move program, he could not imagine the difference it would make in his life in such a short time.

He downloaded the app and started taking walks around the farms whenever he had a little free time. He created a routine and soon wanted to try more exercises. So he found benches and shackles, used cement bags as weights and managed to improvise weight training machines on the farms where he works.

VIK Program Results – 2021<sup>3</sup>

He even changed the food with the tips that the application gave.

When he noticed, the body was already responding – and very well – to the movement. He lost 15 kilos and gained much more in terms of quality of life: less pain and illness, better nights sleep, more disposition throughout the day. Not to mention the freebies that he also collected with the program's bonuses: t-shirts, sound box, lunch box kit... And still have bonuses to redeem. He's hoarding it for the best freebie of all, a watch. But what Jadilson is realizing little by little is that the clock does not come close to what he gained most precious in this program: his health and quality of life.



Collaborators registered in the app

338.562
minutes in activity

+13.000
kilometers traveled walking

+11.000
kilometers traveled cycling

#### **COMMITMENT TO SUSTAINABLE PRODUCTION**











ISO 9001 ISO 45001 ISO 14001 ISO 14064

(2020) 0.75ton CO2 eq/ton (2021) 0.55ton CO<sub>2</sub> eq/ton

Relationship with customers (2021) NPS Survey 2021 - 86.85%

> Waste Management (2021) 59.281 tons of

non-hazardous waste

Volume 0 of mineral waste destined for

Water Management 90% of all water in the factory is reused

14 farms

- + 27 thousand hectares planted forests and fallow areas
- + 22 thousand hectares native vegetation of the Cerrado of Minas Gerais

96% of energy used from renewable source

Negative Carbon balance: (2020) -236,789 ton CO<sub>2</sub> eq

(2021) -189,934 ton CO<sub>2</sub> eq

Minasligas continually invests in business strategies, environmental technologies and management programs that affirm, maintain and enhance our commitment to sustainable production: one that is efficient and safe, that stands out as a "green" production (cleaner and with less carbon emissions) and that treats energy as an essential input, to be preserved and renewed at all stages of the production line.

One of the strategies that permeates our entire business and guarantees a more sustainable production process is the maintenance of our own forestry massif, maintained on 14 farms located in the state of Minas Gerais. The planting of eucalyptus on these farms guarantees a renewable source of charcoal and firewood for wood chips, important raw materials (called bioreducers) for the production of Ferro Silicon and Silicon Metal.

Investment in forests, whether native or reforested, and the use of bioreducer, added to other sources of clean electricity which, in 2021, reached 96% of energy used in production, generate a differentiated condition in terms of sustainability, with low environmental impact solutions. In 2021, Minasligas reached an emission factor of 0.55 ton CO2eq/ton of product, calculation obtained through the GHG Protocol methodology. This result, compared to other producers in the world, is almost 7 times lower.

Thus, considering Scope 1 + Scope 2 (Market Based), the carbon balance<sup>5</sup> for 2021 was -184,934 ton CO2eq, which means that Minasligas retained more greenhouse gases in its planted and native forests than it emitted in its productive process.

4 - According to the GHG Protocol | 5 - ISO 14064 Methodology

#### **CLIMATE CHANGES**

Our commitment to a more sustainable production process is also related to a concern that must be part of all organizations, governments and society in general: the risks involved with the climate changes that the planet faces.

For this reason, the topic of Climate Change is considered highly relevant for Minasligas, permeating all our areas of activity, production processes and analysis of risk and opportunity scenarios.



#### **Physical Risk Analysis:**

Loss of forest assets due to:

- water scarcity in periods of severe drought;
- forest fires in periods of drought;
- higher incidence of pests and forest diseases due to physiological disorders favored by water scarcity and temperature increase.

Reduction in productivity or partial stoppage of forestry activities due to:

- decrease in water availability;
- poor distribution of rainfall throughout the year;
- scarcity of water resources in periods of severe drought.

Reduction in the productive capacity of:

- charcoal raw material for the production of Ferro Silicon and
- wood chips raw material for Silicon Metal production

Logistics stoppage in the delivery of raw materials due to the occurrence of storms.

Increase in the cost of forestry production due to extreme weather effects and/or water deficit (costs with projects and research, use of greater quantity of inputs without guarantee of expected production)

#### Legal Risk Analysis:

- Regulation regarding greenhouse gas emissions and sectoral reduction targets;
- Incidence of carbon pricing and taxation on industrial and agroindustrial emissions;
- Creation of public policies related to climate change.

#### **Opportunity Analysis:**

- Remuneration for providing environmental services in the conservation and recovery of forest ecosystems and water resources;
- Reduction of costs and dependence on water capture from the use of mechanisms that provide greater efficiency in the use of water;
- Creation of technology and evolution in mechanisms for capturing, storing and reusing water;
- Cost reduction and energy dependency from the use of renewable energies;
- Diversification and increase in generation capacity and use of alternative renewable sources of electricity;
- Sale of carbon credit.

#### **Management of Risks and Opportunities:**

- Participation in the research project for the development of eucalyptus clones that are drought-tolerant and more resistant to pests and diseases arising from climate change, carried out by the Sociedade de Investigação Florestais (SIF), of the Federal University of Viçosa (UFV), together with other companies forestbased;
- Research project for drip-irrigated eucalyptus;
- Implementation of the photovoltaic plant used to supply energy from reforestation since 2019/2020;
- Monthly monitoring of rainfall data through rain gauges spread across the farms;
- Use of soil and water management and conservation practices, with annual maintenance on roads and firebreaks, as well as on ridges and containment basins along these areas;
- Planting eucalyptus clones that are more adapted to the climate in the region where the farms are located, with greater carbon absorption;
- Preservation of environmental protection areas, as well as forest remnants with Cerrado plant types in over 40% of the total areas of the company's properties;
- Fauna monitoring in projects with the greatest environmental impact, based on current mining legislation (DN 217/2017);
- Realization of the Greenhouse Gas Inventory GHG and Carbon Balance (Base Year 2020 and 2021).



#### **EFFICIENT AND SAFE PRODUCTION**

#### **QUALITY MANAGEMENT**

Since 1999, Minasligas has the ISO9001 International Certification and maintains a total quality control of all raw materials, in the production stages, in the modernization of the equipment and in the training of employees and qualification of the teams.

In the industrial area, the company has systems for weighing, measuring, transporting raw materials and feeding fully automated furnaces, ensuring greater precision and safety. In order to obtain high quality control throughout the production process, it has sophisticated and well-equipped laboratory facilities, forests, for example, the investment in forest highlighting the ICP, X-ray fluorescence and LECO (for formation is equivalent to an area of 4200 hectares carbon and sulfur analysis) equipment.

charcoal and wood for wood chips, Minasligas invests transport, to filling and unloading the furnaces. in eucalyptus plantations and in the best planning, management and operation practices.

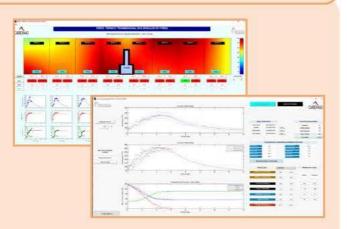
Plantings are programmed with a focus on sustainability and implemented in scales according to its productive processes, investing in the selection of the 7-year forest production cycle, and this is supported by long-term planning that covers all operational centers and allows strategically projecting wood offers and targeting acquisitions to guarantee supply to the Minasligas manufacturing unit.

The charcoal production process is also scaled according to the production capacity of each Operational Core, respecting the forest cycle. Thus, if the annual wood demand of a core is 600 hectares of (600 x 7). This system requires an operation on a high production scale and, therefore, the entire process is In the forestry area, to guarantee the supply of mechanized, from forest harvesting and wood

#### CARBORAD – Innovative technology in the carbonization process

In the wood carbonization process, Minasligas adopts temperature control through the Carborad software, which consists of mathematical modeling of the thermal degradation of wood for charcoal production. The Software generates the carbonization base curve for process control using information on wood characteristics (density, diameter, humidity) and the quality requirements of the charcoal demanded (Gravimetric Yield and Fixed Carbon).

The technology was implemented in 2010 to replace the traditional method, which used empirical and subjective techniques to control the process, such as smoke color, touch temperature, etc. The process is constantly evolving, bringing more and more improvements in the conversion of wood to charcoal, which means greater efficiency in the carbonization process and a reduction of around 12% in wood consumption.



In order for our team to be in tune with the requirements of quality processes and know how to operate all equipment and vehicles correctly, courses and training are available for improvement and professional development.

We instituted a profit sharing policy, designed to encourage even more dedication and commitment from all towards a common objective: to produce more and better, with safety and benefit for all.



#### **QUALITY CONTROL IN THE PRODUCTION CHAIN**

#### Suppliers

Minasligas maintains a relationship of proximity and trust with its suppliers. We have established, since the contract, which are the guidelines and requirements of social, labor and environmental compliance that we expect to be fulfilled. And we carry out periodic technical visits to the main suppliers of raw materials, with the aim of showing points to be improved and highlighting positive points.

We also track our raw materials to ensure their origin and compliance with our sustainability criteria.

If non-compliance with the legal, social and environmental requirements that we have established is evidenced, the supply is immediately interrupted. A deadline is given for the supplier to resolve the issue and a new audit is carried out by our team to verify the new conditions.

#### Costumers

Minasligas is concerned not only with customer satisfaction with the quality of the products, but also with the safety of their use and the achievement of all the specific demand requirements of each type of industry.

To this end, we manage the relationship with customers in the prospecting, sales and post-sales phases, systematically monitoring its effectiveness in terms of: expectations and satisfaction; compliance with the conditions agreed between the parties; prevention and resolution of possible failures; performance of service channels; availability of product information and awareness of the sustainable use of our products.

The NPS (Net Promoter Score) Survey is carried out every six months with our customers. In 2021, the survey result was 86.85%, a standard considered high in satisfaction.



# DIFFERENTIATION THROUGH GREEN PRODUCTION

Minasligas is proud to offer the market differentiated products, both for the quality and safety present in its processes, and for the management and control of all environmental aspects of our production process, which we characterize as a "green production" - clean, safe, with little waste and low GHG emissions.



# Emissions from sources: electricity, mineral coal and electrodes, per ton of Ferro Silicon Electrodes Carbono de base fossil Eletricidade 18 16 14 12 10 Base Maria M

Minasligas

eco

Microsilica

The carbon footprint of the silicon-based alloy industry is directly related to the energy sources used in the production process. In Brazil, GHG emissions are already lower than in other countries. And Minasligas goes even further, bringing the issue to its strategic agenda and seeking sustainable production.

Through active management, environmental impacts are mitigated using processes, tools and equipment that make it possible to control the main activities, making them increasingly ecoefficient, such as:

- Environmental Management and Risk Management System (ISO 14001);
- Atmospheric Emissions Control System;
- Reuse of water in the production process;
- Dedusting system in all furnaces;
- Waste Management / Solid Waste Management Plan;
- Preventive and predictive maintenance on equipment and monitoring of emissions from own and third-party vehicles.



#### **ENVIRONMENTAL MANAGEMENT**

Both the industrial plant and the reforestation farms undergo periodic and systematic assessments of their environmental aspects and impacts, guided by specific operational procedures of our Environmental Management.

All facilities (factory, office, farms) are in legal compliance, with up-to-date environmental licensing.

#### **WASTE MANAGEMENT**

The company is fully regularized in relation to the Solid Waste Management Plan (PGRS).

Waste classified as hazardous is packaged in accordance with the legislation and sent to a company with an environmental license to receive and transport this type of material, which is used for energy recovery. In 2021, all 17.52 tons of hazardous waste (Class 1) were destined for incineration with energy recovery.

Non-hazardous waste (Class 2) totaled 59,281 thousand tons in 2021. Among these, a total of 35,731 thousand tons of so-called "coal fines" are packaged by Minasligas in accordance with legislation and sent to a company that has an environmental license to receive and process it for energy recovery. Other non-hazardous waste destined for co-processing totals 23,549 thousand tons.

There was no volume of mineral waste, hazardous or non-hazardous, destined for landfills.

#### **3Rs Program**

Even though it already has efficient Waste Management, Minasligas launched the 3Rs Program in 2021, which aims to reduce, reuse and recycle the waste generated. This program seeks, together with all sectors of the company, to encourage the conscious consumption of resources, avoid waste and optimize processes.

#### WATER MANAGEMENT

In our manufacturing unit, 90% or more of all water used comes from reuse. This is possible because the ovens' cooling system was made in a closed circuit. In this way, the same water circulates and returns to the cooling tanks.



#### **MINASLIGAS FORESTS**

Minasligas owns 14 farms totaling more than 50,000 hectares and whose main activity is eucalyptus forestry. Our forestry project (available forests) currently has more than 27,000 hectares, including areas of planted forests and unplanted areas (fallow).

More than 22,000 hectares are areas of native vegetation of the Cerrado of Minas Gerais, including protection areas, such as the Legal Reserve and Permanent Preservation Area (APP), and areas of remaining native vegetation.

Currently, we have around 909,000 cubic meters of standing wood.

Distribution of areas	TOTAL (hectares)
Total area	51,450.61
Available for project	27,262.06
Legal reserve	10,919.18
APP	3,817.04
Improvements	2,013.02
Others	7,400.31

+ 50 thousand + 22 thousand hectares of native vegetation in the cerrado of Minas Gerais 909 thousand cubic meters of standing wood.

#### **POWER**

Minasligas offers products to the market developed with clean and sustainable energy, which contribute to the environment, reducing the global footprint of greenhouse gases.

Minasligas is an electro-intensive company, which has electricity as the main raw material used in the production of Ferro Silicon and Silicon Metal. Obtaining a guaranteed supply of this vital input to the production process brings more security to the business and also requires our team to continuously monitor it so that consumption is efficient and responsible.

The company's electricity consumption has targets for monitoring the efficiency of its use, that is, producing more with the same energy consumption.

In 2021, Minasligas consumed around 1 GWh of electricity per year, with around 96% of this energy being provided by plants from renewable sources (hydroelectric, solar, wind).



In addition, Minasligas has two photovoltaic plants that supply energy to farms, the employees' club (Gremil) and the Belo Horizonte office. The main objective of Minasligas is to increasingly improve operational efficiency and that of our facilities, maximizing production indicators. This strategy, associated with making all areas aware of the "Energy" theme, aims to achieve this objective.

#### **CARBON INVENTORY**

The first MINASLIGAS carbon inventory was carried out in 2021 for the Base Year 2020. Using the GHG Protocol methodology, the calculation was made considering the emissions from the factory in Pirapora and the eucalyptus cultivation activities, as well as the production of the bioreducer (charcoal) used by Minasligas. In 2022, the Base Year 2021 inventory was carried out.

Base Year 2020 The measurement resulted in 79,080 tons of CO2 equivalent, with direct Scope 1 emissions volume = 67,954 ton CO2 eq and indirect Scope 2 emissions (Market Base) = 11,126 ton CO2 eq. Considering scopes 1 and 2, the result was 0.75ton CO2eq per ton of product.

**Base Year 2021** 58,717 tons of CO2 equivalent were emitted, considering Scope 1 + Scope 2 Marked Based. The emission factor in 2021 was 0.55ton CO2 eq per ton of product.

The reduction compared to the previous year is due to operational excellence at the factory and carbonization plants, the use of charcoal as a bioreducer and electricity from renewable sources (hydraulic, wind and solar), reaching 96% of the energy consumed.

For the Carbon Balance, the criteria of ISO 14064 were used. In the calculation, Scope 1 and Scope 2 Market Based emissions and removals due to Minasligas forest massifs were considered. The Carbon Balance in 2020 resulted in:

-236,789 ton CO2 eq,

And, in 2021, it was:

- 189,934 ton CO2 eq

Both results mean that MINASLIGAS removed more greenhouse gases from the atmosphere than it emitted.

189,934 ton CO2 eq

removed from the atmosphere in 2021

#### **COMMITMENT TO THE FUTURE**

By anticipating trends and developing an eye for the new, our leadership remains focused on building a future based on pioneering spirit, innovation, market vision and sustainability.

We are always looking to optimize our processes, with efficiency and high yield, continuously improving not only the management and control of production and the impacts that our work brings, but also the professional level of our team and the relationship with our various stakeholders. After all, always improving and achieving superior results, not only for ourselves but for society as a whole, is what motivates the Minasligas team on our journey. Every day, we seek to inspire, engage and develop people to be, along with us, on this road towards the future.



#### **Next Steps of the ESG Agenda**

"We are in the middle of building our strategy, climbing the ESG steps and better structuring concepts and programs. This kick-off that we took in 2021 and the journey up to here, with the publication of this report, was very important."

Felipe Simões Zica – Commercial Director and leader of GT ESG

Minasligas is starting to walk the paths of ESG, knowing that this is a path of no return.

By acquiring maturity in this journey, the next steps will be taken with more firmness and understanding of the dimension of the commitments that are assumed. Targets are being established internally so that the ESG Minasligas Agenda is increasingly aligned with the 2030 Agenda and with the work being done around the world to build a better future.

#### **GLOBAL COMMITMENTS**



Global Compact – in the accession process. The purpose is to endorse Minasligas' commitment to the SDGs and to be aligned with the 10 principles of the Global Compact that govern Human Rights, Labor Rights, the Environment and Anti-Corruption action

#### **INTEGRATED REPORTS**



As a way of measuring and demonstrating our evolution, both in relation to our own ESG agenda and global agendas, Minasligas is considering the adoption of Integrated Sustainability Reports for the coming years, following international reporting standards, such as the GRI Standards. The objective is to evolve in our targets and indicators, according to our material topics, with transparency of information for our stakeholders.



#### **IMS ALIGNMENT**

The management of our ESG Agenda must be done by procedures established in the Minasligas IMS. Currently, the IMS establishes several types of control, especially in relation to environmental issues.

With the ESG implementation, it must be reformulated and "matured" so that management deals with all aspects in a global and robust way, considering the same level of quality that we have in all our processes. The next revision of the Integrated Policy will consider that the IMS must be based on the precepts of the ESG.

#### STAKEHOLDERS ENGAGEMENT

A very important process of maturing our relationship with Stakeholders has already started at Minasligas. The work carried out a mapping of how the company's relationship with the stakeholder groups is and how it can improve.

We connect our analysis and internal perceptions to the insights brought by priority stakeholders in interviews conducted. One of the key messages perceived is that communication and engagement are crucial. These are the points that will undergo an evolution within the company in future actions.

#### **CERTIFICATIONS**

For Minasligas, productivity, operational efficiency, process improvement and growth have always been associated with concern for the environment and the health and safety of its employees. To guarantee these principles, maintain our quality and meet the demands of our customers and the market, we have ISO14001, ISO14064, ISO9001 and ISO45001 Certifications.

We understand that certificates are important recognition of work that would already be done internally – since it is fundamental to our performance, the way we understand it should happen – but that needs external validation from relevant organizations such as ISO.

With each strategic decision to obtain a new certification, we carry out important actions such as reviewing policies and strengthening internal programs, expanding the scope of the subject in question within the company. Environmental management, for example, was strengthened by ISO14001 and ISO14064 Certifications, recently achieved, which will provide even greater support for the ESG Agenda.

We also intend to align ourselves with the ISO50001 Standard, related to energy management – one of our material topics, which is in line with our recent efforts to carry out the company's Greenhouse Gas Inventory and Carbon Balance.

"In the coming years, I see an increasingly mature Minasligas, capturing more opportunities in a market that will also evolve, following the demand of companies to work with "cleaner" products and more aware suppliers. We are already showing the market that we have this differential, and one of the best examples is our carbon footprint. We still have many other actions within this "green flag": our forestry project, which brings several ecosystem benefits, waste management and transformation into electricity, among many other actions, both at the factory and at the reforestation farms.

It is a path with no return. Today, ESG in Minasligas is already a reality. In a short time, it will be consolidated within the company, with the full support of the IMS in managing these aspects.

For the future, we believe that all this will stop being a flag for the market, a fight, and become a consolidated concept. In Minasligas it already is. Now we need to reinforce communication and engagement with stakeholders, and manage this issue with commitment and responsibility."

Felipe Simões Zica – Commercial Officer and leader of GT ESG

#### **Carbon balance**

The ISO14064 Certification validated our carbon capture and emission data. The 2020 result was excellent and showed a highly negative balance. The balance of 2021 showed even more progress in this agenda, with an emission factor of 0.55 tonCO2eq/ton, and the result of -189,934 tonCO2eq, which means that Minasligas has retained more greenhouse gases in its planted and native forests than it has emitted in its productive processes.

We are attentive to the regulatory processes in Brazil for carbon credits and their commercial use, as they may represent good opportunities for Minasligas in the near future.





Report coordination *Minasligas* 

Consulting, materiality and reporting Ambipar-VG

Graphical project and diagramming Ambipar-VG