

# Annual Sustainability Report **2018/2019 Crop Year**



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### Introduction

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Corn ethanol production in Brazil is a paradigm shift in the domestic biofuels sector. With a 100% renewable energy matrix and cutting-edge technology, we add value to the country's agricultural production with a low carbon footprint.



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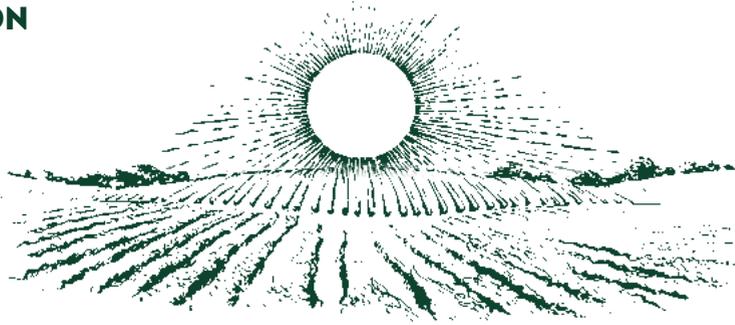
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Corn and biomass suppliers extend the sustainable vision of our business across our value chain.



## Pioneering work and innovation in the Brazilian Midwest

In August 2017, an audacious plan came to light. We opened Brazil's first corn-based ethanol plant in Mato Grosso State in the country's Midwest region. Through this sustainable and innovative business model, we at FS Bioenergia are now adding value and cutting-edge technology to the domestic production of corn ethanol, a biofuel which traditionally was based on sugarcane culture.

After achieving very positive results, we decided to share the company's learning and goals with the stakeholders across our value chain. The publication of the first Annual Sustainability Report is another step towards increasing knowledge about the positive impacts and risk and opportunity management that we apply to our business model.

In this first edition, following best disclosure practices, we use the Global Reporting Initiative (GRI) framework as a benchmark to present the topics related to sustainability management. The prioritization of the GRI disclosure items in the Report was based on the handbook "Food and Agriculture Business Principles as Drivers of Sustainable Development Goals", which was published by the Global Compact Brazil Network

in 2016. The process also involved the assessment of sector benchmarks and applicability and availability analysis of company data.

The social and environmental information disclosed in this Report covers the FS Bioenergia fiscal year between April 1, 2018 and March 31, 2019, and was audited by an external and independent firm. The audit is an important component of accountability to show to our stakeholders the effectiveness of the controls that we adopt. The auditors report is available on page 51.

Next year, following the stakeholder engagement process and consolidation of the material topic matrix we are currently conducting, we will be fully in line with the GRI guidelines, recognized internationally as the most advanced platform for communicating corporate sustainability progress. The second edition of our Sustainability Report will be released at the end of the 2019/2020 crop year.

Those interested in sharing their views on this Report may email us at [comunicacao@fsbioenergia.com.br](mailto:comunicacao@fsbioenergia.com.br).

We wish you all a good reading!

## Added value for Brazil's agribusiness

Brazil has finally begun to break through the corn ethanol industry. We believe that biofuels will play a relevant role for the future of the planet and this involves balancing sustainable energy and food production. With its thriving agribusiness and natural vocation for the production of biofuels, Brazil is bound to meet a relevant part of the demand arising from the growing world population, while helping to mitigate climate-related risks.

Our plant in the municipality of Lucas do Rio Verde, Mato Grosso State, is the first in the country to produce 100% biofuel from corn with state-of-the-art technology and in large scale. In the first quarter of 2020, we will open our second unit in the municipality of Sorriso, totaling an investment of BRL 2.7 billion since the company's foundation in 2016.

Therefore, we have consolidated a company that aims to help build a low carbon future by providing society with renewable energy and animal nutrition products.

In just a few years of operation, our business has made a significant impact on adding value to corn growers in Mato Grosso. Historically, due to increasing production and low consumption in the local market, corn was negatively impacted by high transportation cost to ports, placing a considerable burden on farmers due to low prices and liquidity. It also burdened the country that was required to invest public funds to subsidize freight to the ports. Today, these subsidies no longer exist and corn ensures high profitability for farmers, who have increasingly adopted the latest technology to obtain productivity gains in the field.

In the 2018/2019 crop year, FS Bioenergia completed its first full year of operation and achieved results that exceeded our initial expectations. During the year, we processed more than 625 thousand tons of corn and produced about 260 million liters of ethanol, which was sold to customers all over Brazil.

We also produced new types of wet and dried distillers grains, known as DDGs. These protein- and fiber-rich products are obtained through the FST™ technology that we brought to Brazil and are used for animal nutrition in cattle, hog, poultry and fish farming. This innovative technology was introduced in Brazil exclusively by our company and has increasingly gained the confidence of local producers, bringing productivity and profitability gains. In the last year,



Rafael Abud – FS Bioenergia CEO

we reached almost 250 thousand tons of DDGs sold.

In our plant, we use biomass in our boilers and generate enough electricity to supply operations and export surplus to energy consumers in the free market, thus benefiting the country with a new renewable source in its energy matrix. Through partnerships with farmers, we reforested 4 thousand hectares of marginal land with low grain yield potential, with eucalyptus trees that will supply our energy co-generation plants. Our program provides for the planting of 30 thousand hectares of eucalyptus by 2023.

By producing ethanol, bioenergy and animal nutrition products, we have strengthened the entire agribusiness chain and broadened local positive economic impacts, while maximizing the yield of existing crops and contributing to environmental preservation.

Our activities are underpinned by our Code of Ethics and are in full compliance with the Brazilian Anti-Corruption Law and its US equivalent, the Foreign Corrupt Practices Act (FCPA). All our employees undergo training as soon as they are hired and then they go through periodic recycling programs to combat fraud and corruption cases across our value chain.

To ensure the safety of our employees and third parties working in our plants and minimize the risk of accidents, we have adopted a number of tools and controls. Since 2017, safety training has exceeded 20 thousand hours and involved hundreds of employees and suppliers. In the last crop year we identified an increase of 18 percentage points in the Safe Practice Index, one of our key indicators to assess the teams' adherence to our safety culture.

Our company aims to  
**create sustainable value**  
within Brazil's new agricultural  
frontier, with **renewable energy**  
**and animal nutrition products**  
that feed responsible  
supply chains

The number of FS Bioenergia employees grew more than 50% in the last crop year, with a focus on promoting internal employees and the development of professionals for new challenges. We also conducted our first organizational climate survey during that period, where we achieved an 88% satisfaction rating and the Great Place to Work (GPTW) certification, which recognizes companies with outstanding workplace culture.

Our employees' determination and execution capacity, as well as our commitment to our customers, suppliers and communities, will take us further and further ahead. Our pioneering work in producing 100% corn ethanol in Brazil is just the first step on a path that we are safely and soundly walking through to transform the Brazilian biofuels industry, and shows how we can make a positive contribution to society.

**Rafael Abud**  
**FS Bioenergia CEO**

# Profile



## How we work

At FS Bioenergia, we work to add high technology and develop the Brazilian agribusiness production chain. We are the first plant in the country to produce 100% corn ethanol through a sustainable business model and connected to the global demand for renewable energy sources and lower greenhouse gas emissions.

Our plants are located in the state of Mato Grosso, in Brazil's Midwest region, the country's main corn producing area. Our first plant opened in August 2017 in the municipality of Lucas do Rio Verde, where our corporate headquarters are located. In the 2018/2019 crop year, we completed the expansion of this industrial plant, which now has the capacity to produce 530 million liters of biofuel a year.

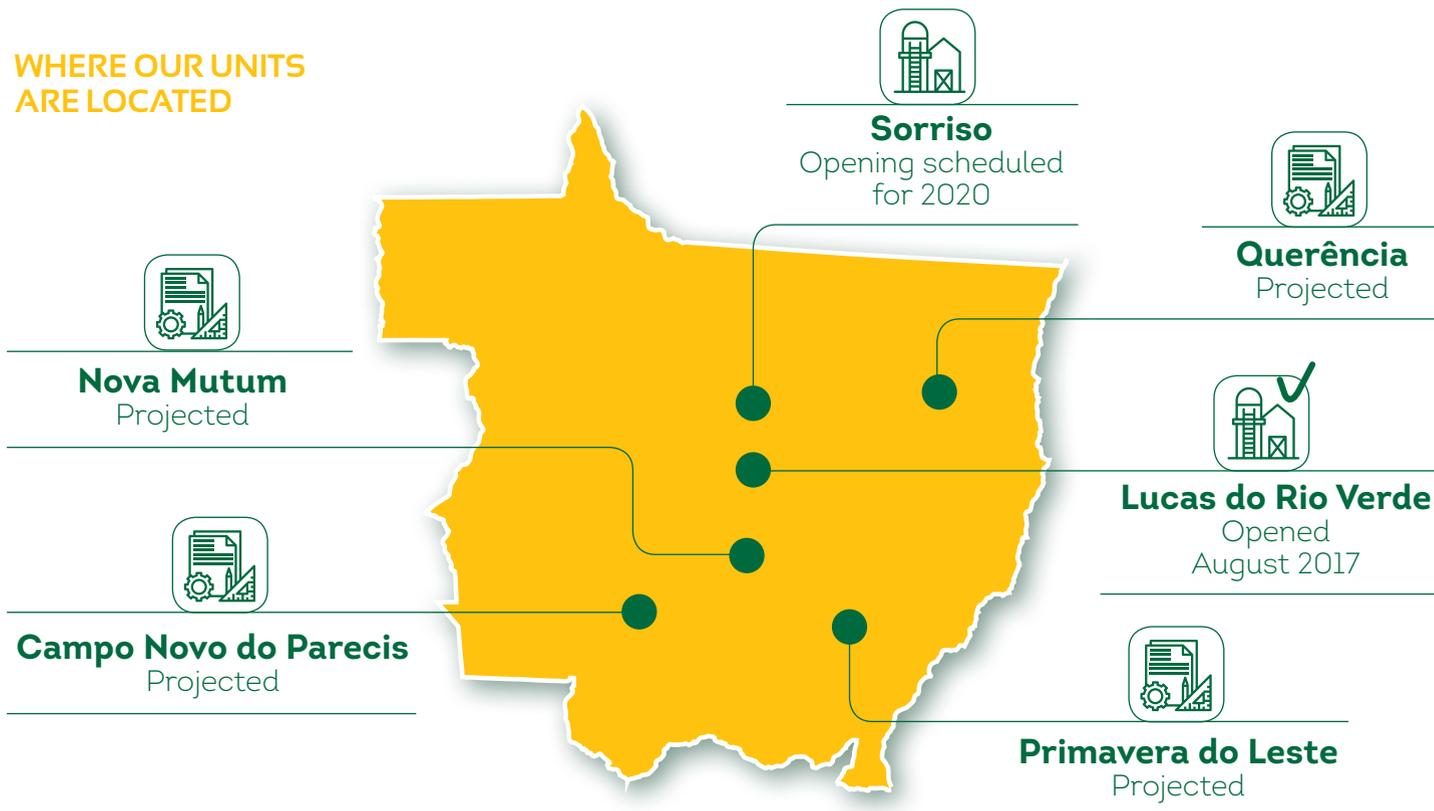
In the 2019/2020 crop year, we plan to open the second plant in the municipality of Sorriso. We invested BRL 1.63 billion to build this new unit, which will increase our production capacity to 1.33 billion liters of ethanol a year. We also anticipate the installation of four more plants in Mato Grosso State\*.

The expansion of our operations is in line with the expectation of growing demand for this biofuel. Currently, Brazil consumes about 28 billion liters of anhydrous and hydrous ethanol per year, according to data from the National Agency of Oil, Natural Gas and Biofuels (ANP). This volume could reach about 45 billion liters if driven by programs such as RenovaBio and other incentive programs for a less carbon-intensive energy matrix, according to expert consultants.

*\*Data updated after publication of financial statements.*



WHERE OUR UNITS ARE LOCATED



As well as ethanol, our plants supply other types of corn products. We produce and sell DDGs and Wetcake, wet and dry grains extracted from the distillation process and used for animal nutrition. We also market corn oil and export renewable electric energy from biomass boilers. By using this model, we add value to our production chain and encourage grain processing within Mato Grosso State.

OUR ANNUAL PRODUCTION CAPACITY:

**530 million**  
liters of ethanol

**470 thousand tons**  
of DDGs and Wetcake

**16 thousand tons**  
of corn oil

**165 thousand megawatt hours**  
(MWh) of electricity

*\*Data relates to the Lucas do Rio Verde unit only and was updated after publication of financial statements.*

# 2018/2019 CROP YEAR

## WE PROCESSED



**625.4 thousand**  
tons of corn

## WE PRODUCED



**258.9 million**  
liters of ethanol  
(anhydrous + hydrous)



**248.4 thousand**  
tons of DDGs for  
animal nutrition



**7.4 thousand**  
tons of corn oil



**100 thousand**  
MWh of electric energy

## WE EMPLOYED



**271 people**



**52**  
women

**219**  
men



## Brazilian corn ethanol

Brazil is the world's second largest ethanol producer, second only to the United States, which uses corn as its main input. The installation of our first plant at Lucas do Rio Verde represented a paradigm shift in the Brazilian context as it showed that the production of ethanol exclusively from corn is feasible with significant environmental gains over traditional U.S. and Brazilian biofuel production models.

Developed and refined for decades in the United States, the process technology we use to produce 100% corn ethanol ensures the reliability and quality

of our products, as well as maximum operating efficiency. The main difference between our plants and the U.S. plants is the adoption of renewable biomass as an energy source for boilers instead of natural gas. By configuring our assets to burn renewable biomass instead of fossil fuel, widely used in the Northern Hemisphere, our production process has a smaller carbon footprint and prevents the increasing concentration of greenhouse gases (GHG) in the atmosphere.



Another advantage of our plants is the absence of vinasse as a residue from the ethanol production process. This is because our production is capable of maximizing corn utilization while simultaneously generating biofuel and coproducts for animal nutrition.

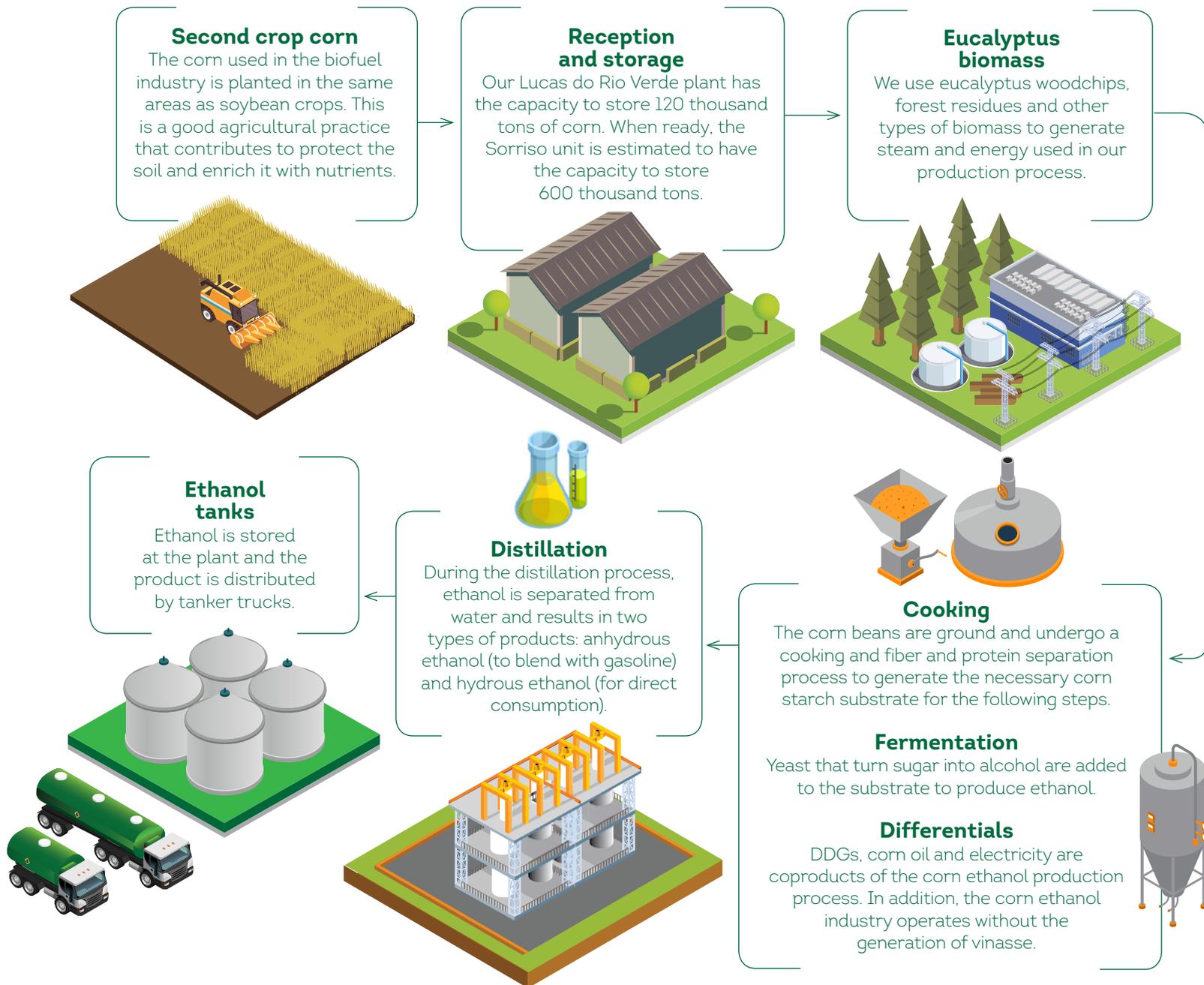
Corn ethanol meets all ANP specifications and has the same characteristics as sugarcane ethanol. Whether added to gasoline (anhydrous ethanol) or purchased directly from gas station pumps (hydrous ethanol), corn ethanol plays an important role in reducing internal combustion engine GHG emissions and improving the quality of life in cities.

The corn we use is second crop corn grown in Mato Grosso State after the soybean harvest as a way to protect the soil and enrich it with nutrients. Therefore, our business model adds value to local agricultural production and fosters the development of technologies to increase productivity in the field without the need to expand the planted areas.

Our ethanol is produced from **second crop corn using high technology with a 100% renewable energy matrix** that enhances our contribution to a low carbon economy



## CORN ETHANOL PRODUCTION MODEL





## RENOVABIO AND THE PUSH FOR BIOFUELS

Brazil's National Biofuels Policy – also known as RenovaBio – was sanctioned in December 2017 and is considered an essential lever for boosting biofuel investments, stimulating the use of renewable energy sources instead of fossil fuels and helping the country to meet the goals of the Paris Agreement, established in 2015 during the Climate Conference (COP-21) held in the French capital. RenovaBio is due to enter into force in 2020.

The new legislation states that distributors in Brazil will have to meet individual GHG emission reduction targets, according to their share in the fossil fuel market. Compliance with those targets will be proven through the purchase of CBios – biofuel decarbonization credits – a financial asset that will be traded on the stock exchange.

The guarantee of issued CBios, in turn, will be based on the amount of biofuels produced and sold by government accredited producers. Each CBio is equivalent to 1 ton of carbon equivalent (tCO<sub>2</sub>e) that is no longer emitted in the ethanol production process. Thus, the CBios also have the potential to make the Brazilian industry even more efficient and competitive – the less energy consumed in obtaining ethanol, the more CBios can be issued.

In 2019, the ANP announced the target for Brazilian fuel distributors. By 2020, these companies will have to purchase 16.8 million CBios. Failure to comply with this requirement will result in fines and other types of penalties.

# Corn coproducts: animal nutrition and renewable energy

The production model that we started in Mato Grosso State extends the opportunities for value creation through the sale of coproducts: derived from corn processing. DDGs, or Distillers Dried Grains, are intended for animal nutrition and help increase productivity and reduce producers' costs. In addition, our plant also produces corn oil and generates electric energy from biomass, which is exported to the Brazilian power network.

Our DDGs are rich in proteins and other essential nutrients for cattle, hogs, poultry and fish. The three formats we produce (FS Essencial, FS Ouro and FS Úmido) serve small and large farmers, as well as animal feed industries. These products supplement the livestock's nutritional demands and improve feed intake performance to provide greater efficiency and reduced production costs. Furthermore, DDGs incentivizes the adoption of intensive livestock models, reducing the need for new pasture areas.

## CORN COPRODUCTS:

### Animal Nutrition DDGs



- **FS Essencial:**

Energy source, digestible amino acids and phosphorus in hog and poultry diets at all production stages.



- **FS Ouro:**

Provides fiber and protein energy for beef cattle at all production stages. It can also be used as an energy and protein supplement for dairy cows and included in the grain mix of calf starter ration.



It has better feed application in the diet of pregnant and lactating hogs compared to corn and conventional DDGs.



- **FS Úmido:**

Features uniform particle size, high palatability and nutritional value to help maximize cattle feed use and performance.



### Corn oil

- **FS Vital**



### Bioenergy

- **Cogeneration from biomass**

Sold under the FS Vital brand, our corn oil can be used for animal nutrition. The product properties also allow its application in the production of biodiesel, special oils, soaps, paints and resins.

Energy cogeneration from biomass meets the plant's energy needs and provides the generation of surplus electricity, which is exported to the Brazilian power network. Therefore, as well as reducing fuel consumption in the production process, our plant creates value through the sale of energy produced from renewable sources that prevent the increase of GHG concentration.

Our DDGs stand out for their high protein or fiber concentration and contribute to **livestock productivity** by encouraging the adoption of intensive livestock production models in the sector



Our cogeneration capacity is

**165 thousand MWh per year,** enough to supply a city of 65 thousand people\* **with 100% renewable energy**

\* Calculation based on Table 3.63 Population and per capita consumption described in the Electricity Statistics Yearbook - EPE (2018), considering total self-production.



# Sustainable value generation

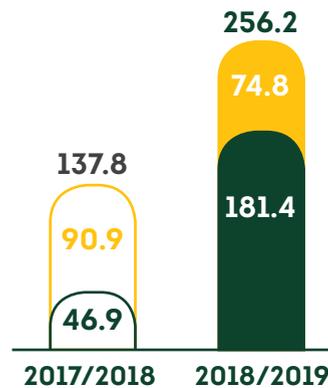
The 2018/2019 crop year marked the first full operation period of our plant installed in the municipality of Lucas do Rio Verde. In this cycle, we expanded the production and sale of corn ethanol and introduced DDGs into the animal protein production chain in Mato Grosso State.

In the last year, with the expansion of the plant, ethanol sales reached about 256 million liters, and approximately 71% of this volume was anhydrous ethanol, which is mixed with gasoline according to the Brazilian legislation requirements. In the 2017/2018 crop year, when our operation was still undergoing a stabilization period and production didn't begin until June, we sold almost 138 million liters.

Our ethanol serves large and small fuel distributors in Brazil. Most of it is sold to customers from Mato Grosso State and from the northern Brazilian states. In the last crop year, our product reached the southern and southeastern states, the main Brazilian consumer regions. Therefore, our performance has helped increase the competitiveness of ethanol over gasoline across the country.

## Ethanol sold by type (thousand m<sup>3</sup>)

- Anhydrous ethanol
- Hydrated ethanol

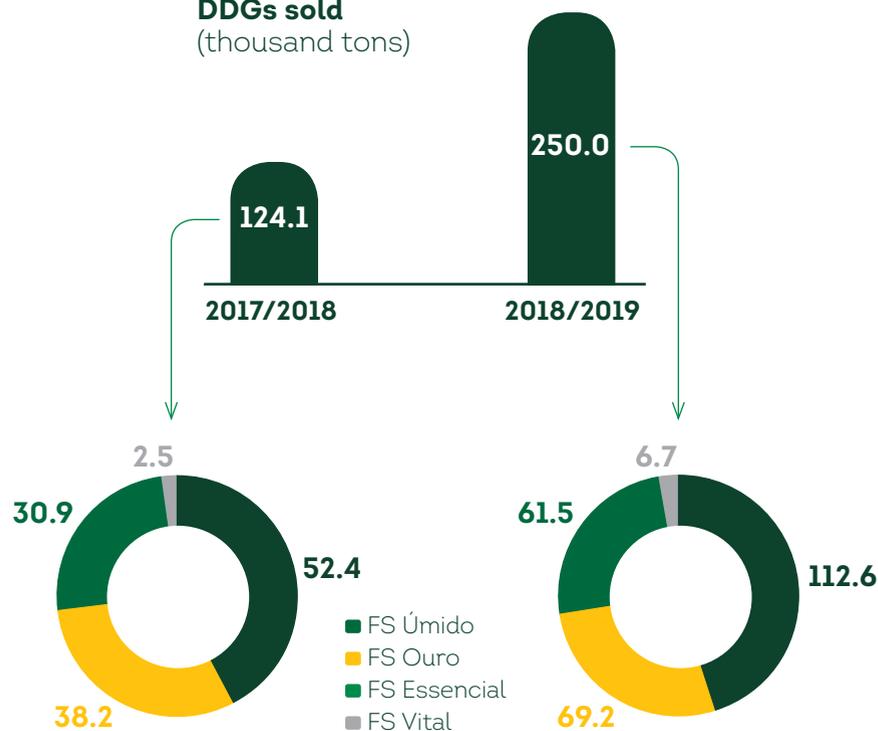


The FST™ system, which is imported from the United States, is used to separate corn fibers before the fermentation process. This increases ethanol yield and provides coproducts for animal nutrition with a high protein and fiber content - the DDGs.

In the 2018/2019 crop year, we sold 250 thousand tons of corn coproducts for animal nutrition, serving customers in 13 different Brazilian states. Most sales are concentrated in Mato Grosso State, which adds value to local producers. The introduction of this type of nutritional supplement in the Brazilian market is a result of our teams' sales efforts, who are dedicated to presenting the technical and financial advantages of this option to cattle, hog, poultry and fish farmers.

The financial performance resulting from the first full crop year of FS Bioenergia operations was in line with the targets previously set out by the company and helped further investments in the construction of new units, a strategy we adopted to ensure our presence in the main corn producing areas in Brazil. Net revenue for the 2018/2019 crop year totaled BRL 565.3 million, with a net debt of BRL 695.9 million.

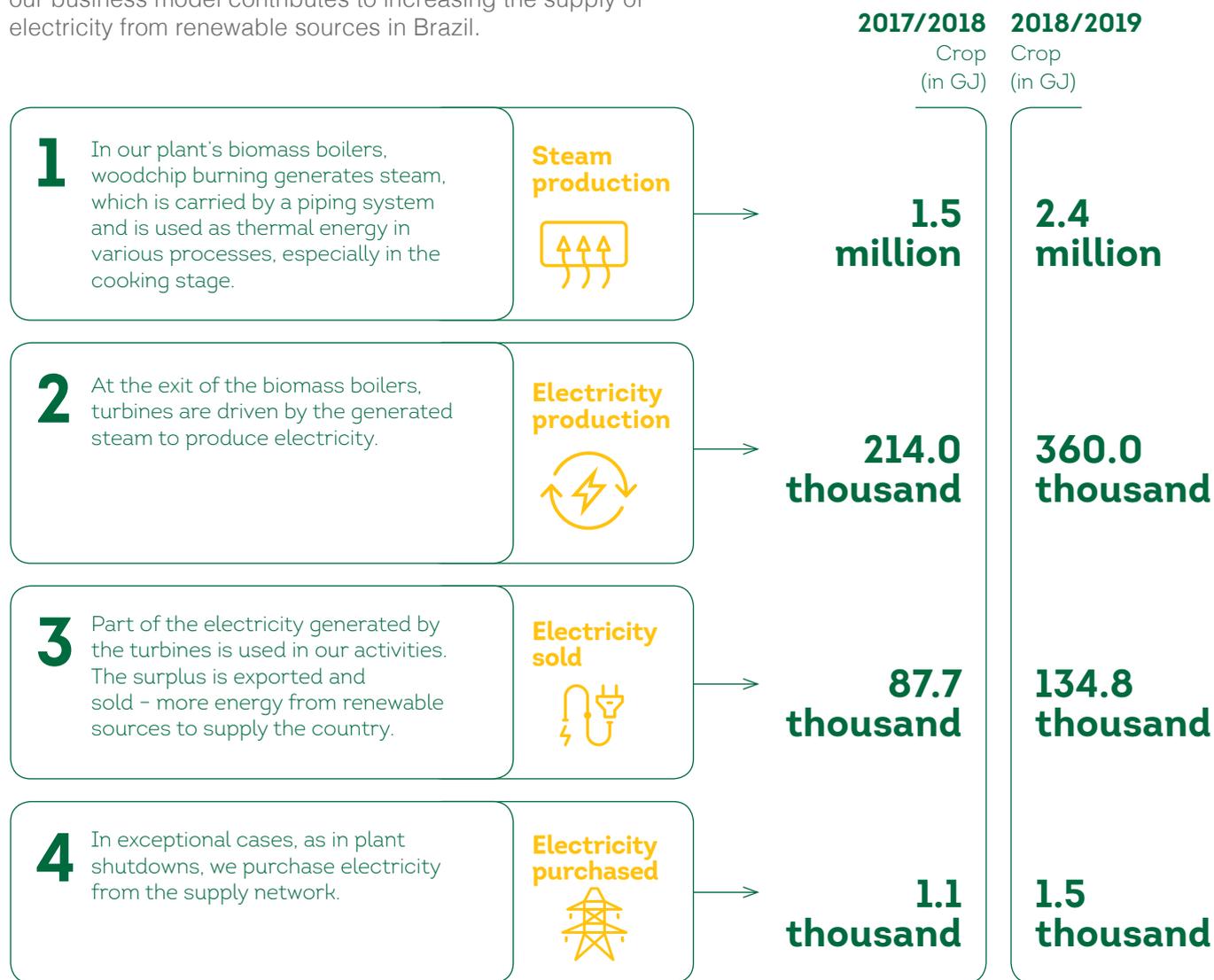
DDGs sold  
(thousand tons)



Our performance is in line with our set goals and allowed **reinvestments for our business growth**, reflecting the successful execution of our strategy

## HOW WE GENERATE AND EXPORT ENERGY

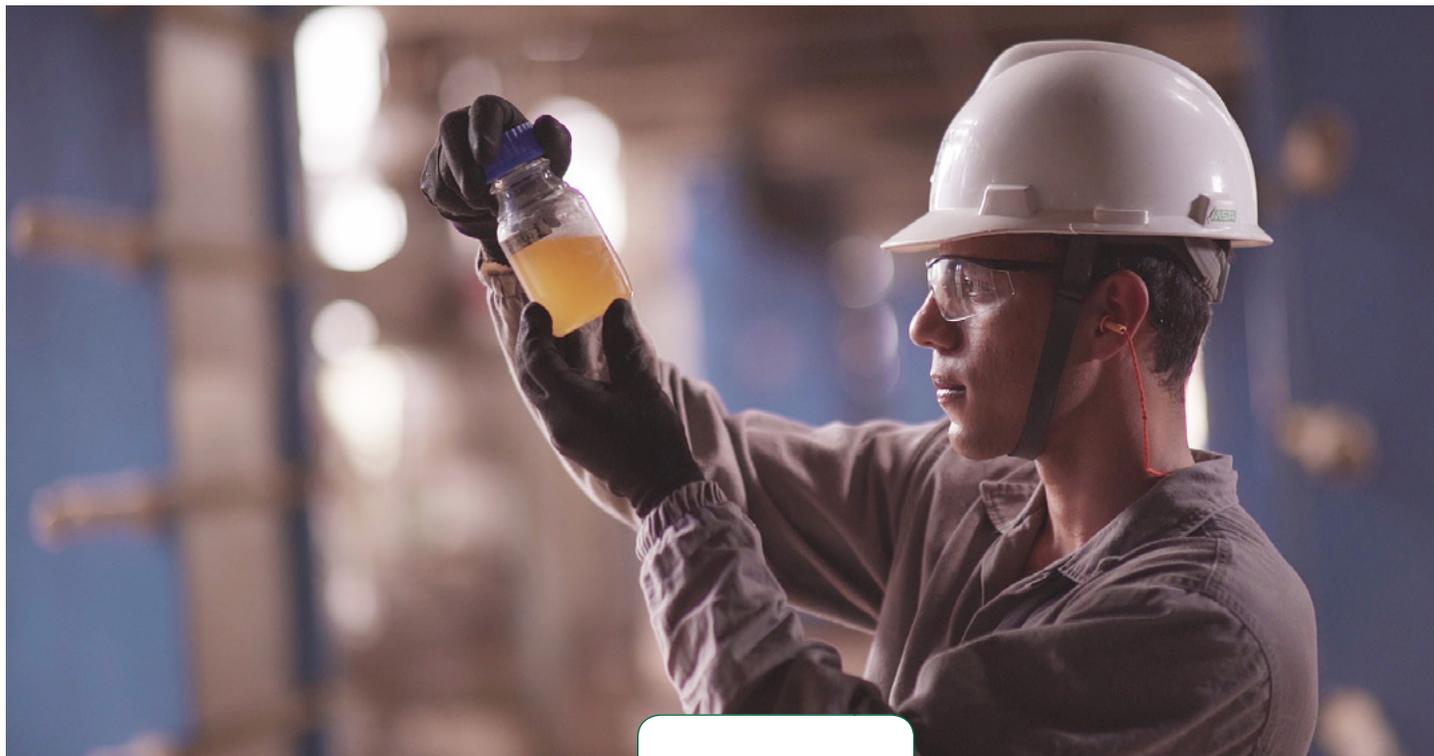
Besides ethanol and corn coproducts for animal nutrition, our business model contributes to increasing the supply of electricity from renewable sources in Brazil.



An aerial photograph of an industrial facility featuring several large, cylindrical storage tanks. The tanks are arranged in a row and are connected by a network of pipes and yellow safety railings. The tanks have a metallic, ribbed appearance. In the background, there is a parking lot with several cars and a building with a corrugated metal roof. The text 'High performance' is overlaid on the right side of the image in a white, outlined font. The word 'High' is on the top line, 'per' is on the second line, 'for' is on the third line, 'man' is on the fourth line, and 'ce' is on the fifth line. The text is positioned over the tanks and the parking lot area. There are also some decorative curved lines in white, yellow, and green at the bottom of the image.

# High per for man ce

## A challenge-driven team



Built on a 75 acres plot of land, our first plant in the municipality of Lucas do Rio Verde is equipped with state-of-the-art technologies for corn ethanol production. In addition to industrial innovation, our company's growth is underscored by a high performance culture and by highly valued professionals who are building a new ethanol production model in Brazil. By the end of the 2018/2019 crop year, our team was made up of 271 employees, and the hiring process was sped up during the year to meet the increasing demand in our business activities.



**271**

**employees**

made up our teams by the end of the 2018/2019 crop year, a 50% increase over the previous period

In the last year alone, we opened more than 210 new job positions and managed to fill 25% of those by promoting in-house staff who had been hired in previous years. Among the employees hired to fill the new positions, about 95% continued to work for the company for at least 180 days after being hired, which shows the assertiveness of the recruitment and selection processes that we implemented in line with our corporate values.

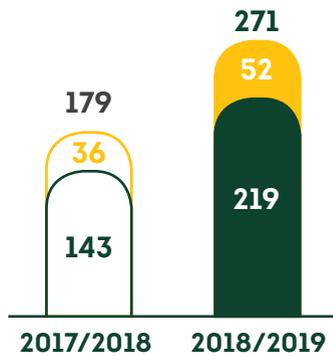
**OUR TEAM'S EVOLUTION**

Our employees work in administrative and industrial areas. Recently hired employees have the experience and technical skills needed for their work, and are in line with our commitment to produce corn ethanol in an innovative way in Brazil.



**Number of employees by gender**

- Men
- Women

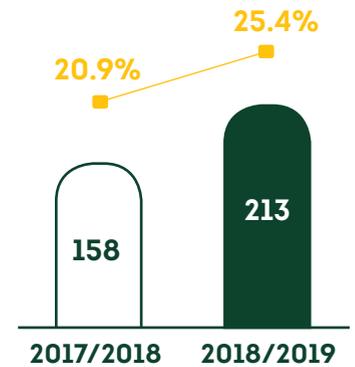


**Number of employees by skill level**



**Recruitment and selection**

- Open positions
- Internal Movement Rate



In the 2018/2019 crop year, driven by our team's rapid growth, we conducted for the first time an organizational climate survey to assess employee perception on people management guidelines and practices. For this, we adopted the Great Place to Work (GPTW), one of the most commonly used work environment methodologies worldwide.

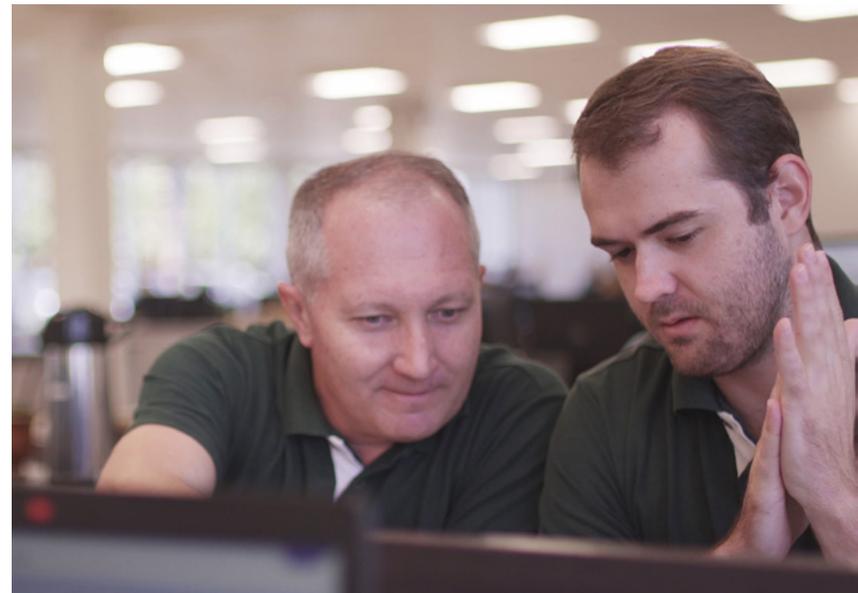
Our company achieved an 88% employee satisfaction rating, and this led us to become a GPTW certified organization. Furthermore, the climate survey showed that more than 70% of employees intend to stay with the company for at least five years and that 79% of employees would recommend the company to friends and relatives as a good place to work.

Career growth opportunities are factors that help understand this positive scenario. To enhance our employees' professional skills, we offer a comprehensive internal training program that addresses issues such as combating corruption, workplace safety, quality, and industrial procedures.

We also have a scholarship program that subsidizes up to 50% of the costs of undergraduate, postgraduate, specialization, and language courses, among others. In the 2018/2019 crop year, 84 employees benefited from these grants following an internal analysis of their professional skills and career goals. Investment in this program was around BRL 131 thousand.

Our leaders are also qualified to act as multipliers of our values and to support their teams' development in line with the company's growth. In our executive coaching program, leaders are accompanied and coached by expert professionals who foster the learning and enhancement of strategic skills for business and people management.

In the last crop year, 25 leaders underwent over 800 hours of training and we invested about BRL 188 thousand in our executive coaching program. For the 2019/2020 crop year, we aim to implement an in-company program designed for leadership training.



**A dynamic business**  
environment with  
investments geared to  
continuous professional  
qualification drives our  
employees' satisfaction and  
**pride in belonging**  
to the company

## Mission

Contribute to the development of Brazilian agribusiness in the production of bioenergy and animal nutrition, adding value to the corn production chain, using high technology, with respect to employees, shareholders, suppliers, local community and the environment.

## Vision

Be a leader and reference in the national corn ethanol industry and animal nutrition products, seeking maximum efficiency in an innovative and sustainable manner.

## Values

### Integrity

• **SECURITY** •

We strictly comply with security procedures

• **ETHICS** •

We live our values ethically and honestly

• **PEOPLE TREATMENT** •

We recognize professionals who train, recognize, value and respectfully treat their colleagues

• **SUSTAINABILITY** •

We intelligently use natural resources and we are concerned about the safety and well-being of people and the community

### Execution

• **SENSE OF URGENCY** •

We are committed to the company's results; therefore, we face daily challenges without wasting time, making quick and assertive decisions

• **NO EXCUSES** •

We overcome our professional limitations in a timely manner, learning quickly from our mistakes

• **COMMITMENT** •

We continuously think and act on our plans and ideas until we have done all we can to bring them to a conclusion

### Efficiency

• **CLIENTS** • We provide products and services with quality and excellence

• **INNOVATION** • We guarantee the pioneering spirit with responsibility and passion for what we do, we are obstinate in making our business grow and prosper

• **TECHNOLOGY** • We research, modernize and improve our infrastructure and processes continuously

• **QUALIFICATION** • We encourage training of our human capital

• **RESPONSIBILITY** • We assume the responsibility and consequences of our own actions

## FINANCIAL COMPENSATION AND EMPLOYEE PERFORMANCE

In our management model, employee appreciation is also expressed by the company through a compensation package above the market average and linked to performance indicators. In the 2018/2019 crop year, the lowest wages paid to company employees were at least 20% higher than the minimum wage determined by Brazilian law. When only women are considered, this ratio rises to 40%.

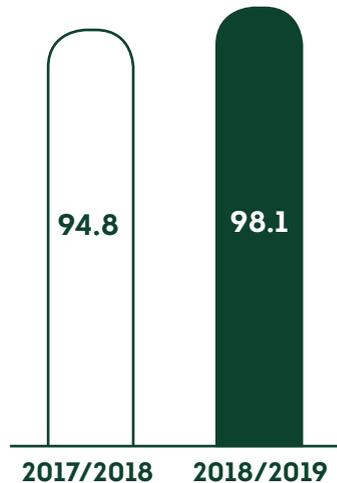
The compensation system that we adopt to establish our Employee Profit Sharing Plan (PLR) considers the achievement of corporate goals, thus strengthening the commitment of all employees to the achievement of financial goals and social and environmental performance. These benefits were negotiated into a collective bargaining agreement that was entered into with the employees' trade unions and is effective until the 2019/2020 crop year. The

agreement covers all employees and provides for the payment of up to three wages in profit sharing.

For teams working in the industrial area, the PLR is paid on a quarterly basis. To be eligible for the compensation bonus, teams must meet targets based on different types of indicators, such as ethanol production, plant uptime, and quality of workplace housekeeping. The bonus is calculated quarterly and may also be subject to individual or collective penalties, as in the case of work-related accidents or a behavior warning.

In the 2019/2020 crop year, we included a specific target on safety in industrial operations for the quarterly PLR bonus. This has strengthened our commitment to protecting our employees and building an increasingly healthy workplace environment.

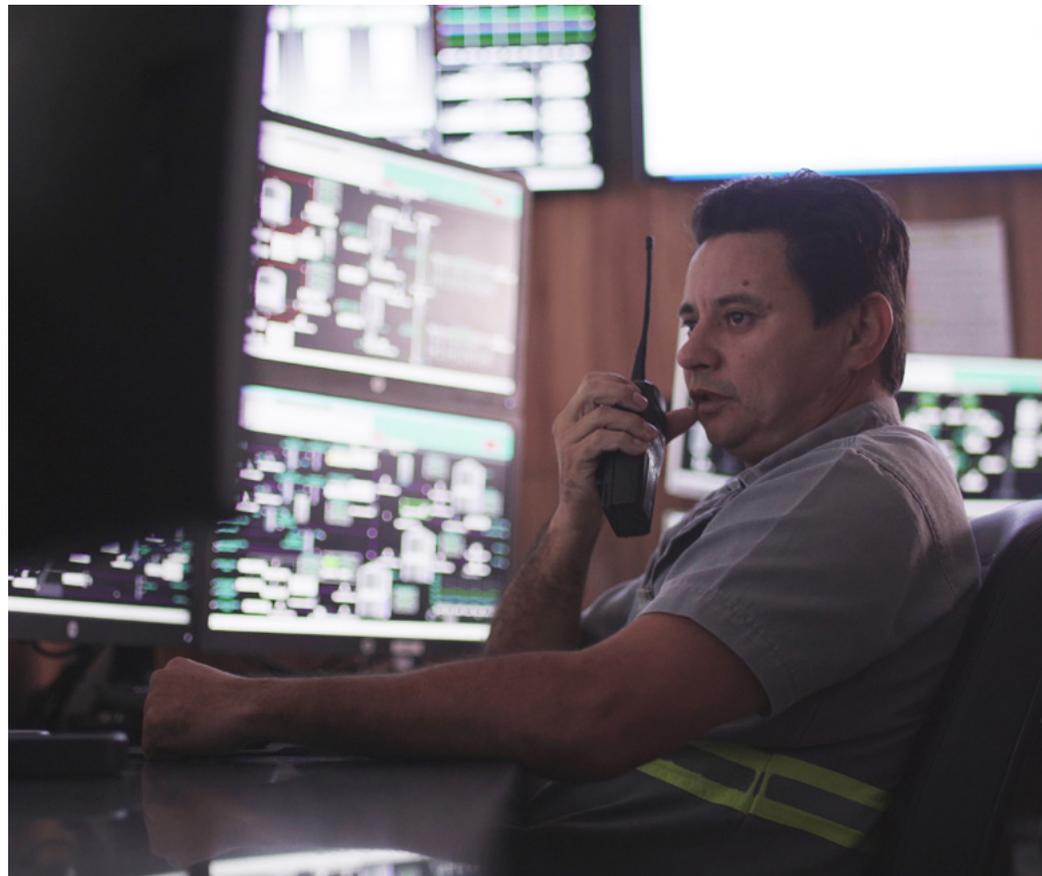
### Plant Uptime (in %)



## Safe attitude: prevention and people awareness

Since prior to the start of our industrial activities, ensuring the health and safety of the people who work in our units is a top priority under our management model. We act in a preventive manner, both in the construction phase of our plants and in their operation, so that our employees and contract workers are not exposed to risks and adopt safe behaviors to execute their tasks.

The tools we put in place to promote and strengthen the company's safety culture are laid down and detailed in the Occupational Safety and Health (OSH) management system, which was implemented in 2017 and is guided by a corporate OSH policy. Our safety-related initiatives include training, leadership engagement in field observations and audits, and control of indicators to implement educational campaigns.



The company's robust management system engages all operations employees in safety with a focus on **accident prevention** and the promotion of **safety behavior**

One of the key indicators we have established in our operations is the Safe Practice Index (IPS). The IPS is calculated monthly based on the Behavioral Observation Program, whereby industrial leaders take field visits and follow pre-established routes within the plant to assess employee attitudes toward safety standards and guidelines.

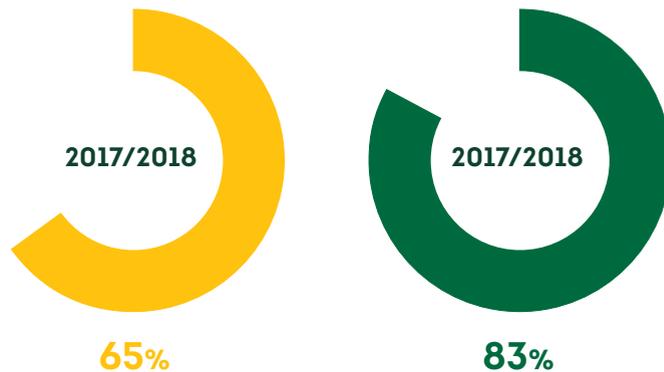
The identification of unsafe behaviors, like the absence of Personal Protective Equipment (PPE), for example, is written down and points are subtracted from the starting score. Upon consolidation of the results, we map out the improvement opportunities, corrections to be made and the most relevant issues to implement awareness campaigns. From the program inception in November 2017 to the closing of the 2018/2019 crop year, our leaders made 605 observations in field visits and 766 deviations from safe behavior were pointed out and corrected.

In addition to field visits, we also carry out housekeeping inspections and audits on our premises, where we check whether employees are authorized to perform services like working at heights and tasks involving the power network.

Another pillar of our OSH management system is safety and health training for our employees. In many cases, these training programs go beyond what is required by Brazilian law, since our operations demand further elaboration of the instructions and procedures that we adopt.

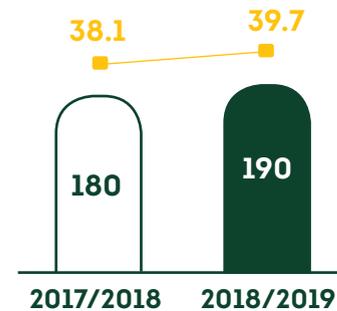
In the 2018/2019 crop year, we trained 770 employees totaling 9,858 hours. In the previous year, we trained 1,010 people totaling 10,186 hours. This total also includes the training provided to suppliers' subcontractors, all of whom undergo at least four hours of training in operational safety.

### Safety Practice Index evolution (the higher the better)



### OSH training for employees

- Number of employees
- Average hours of training per employee



## Leadership engagement in various practices, from behavioral observation to accident investigation, is critical to strengthening the company's safety culture

Accident prevention and safety risk management work is complemented by the proactive training of the Internal Accident Prevention Commission (CIPA), a body made up of the company's employees responsible for assessing workplace safety conditions. The composition of the CIPA plays a key role in building a safety behavior culture among our teams, besides meeting legal requirements.

We hold the Internal Accident Prevention Week (SIPAT) annually to address safety and healthcare issues within the company. To encourage employee engagement in the SIPAT, we pay overtime to participating employees. In the 2018/2019 crop year, 95% of our employees attended the event.

We also offer all our employees a 100% company-funded health and dental plan and a 50% financial allowance for off-work sports activities. The company's partnership with a sports club in Lucas do Rio Verde has benefited both employees and their relatives. This initiative complements our actions geared to promoting health and quality of life.

Our efforts to prevent accidents and foster a safety culture within the company have led to a relatively small occurrence rate in our operations. In the last crop year, we reached the milestone of one year without

accidents, but in this year we recorded three accidents with our employees and three with contract workers. The company has never had a fatal accident in its operations. All occurrences are investigated to identify the root cause and take action, under the supervision of the senior management. Furthermore, the occurrences directly affect the variable compensation of all industrial employees (learn more on page 24).

Workplace accidents	2018/2019 crop		2017/2018 crop	
	Employees	Contract workers	Employees	Contract workers
Man-hours worked	577,590	1,040,000	495,178	2,220,000
Number of recordable accidents	3	3	3	0
Recordable accident frequency rate*	1.04	0.58	1.21	0.00
Accident severity rate **	0.69	17.12	0.00	0.00

\*This rate is calculated based on 200 thousand man-hours worked and takes into account both lost time accidents and no lost time accidents, including those that required only first aid. There were no lost time accidents longer than 6 months nor fatal accidents.  
 \*\*This rate is calculated based on 200 thousand man-hours worked and takes into account lost time calendar days.



# Environment

# Business connected to a new energy

The introduction of technology for the production of 100% corn ethanol in Brazil adds social and environmental benefits to the biofuel production chain and expands the country's contribution to the global effort to combat climate change, increasing the supply of renewable energy sources without increasing the concentration of greenhouse gases (GHG) in the atmosphere.

To quantify and highlight the environmental gains of our business, we conducted a study focused on analyzing the carbon footprint of the ethanol we produce and the direct and indirect impacts of implementing the first plant of its kind in Mato Grosso State. The study was conducted by researchers from Agroicone and was named "Socioeconomic



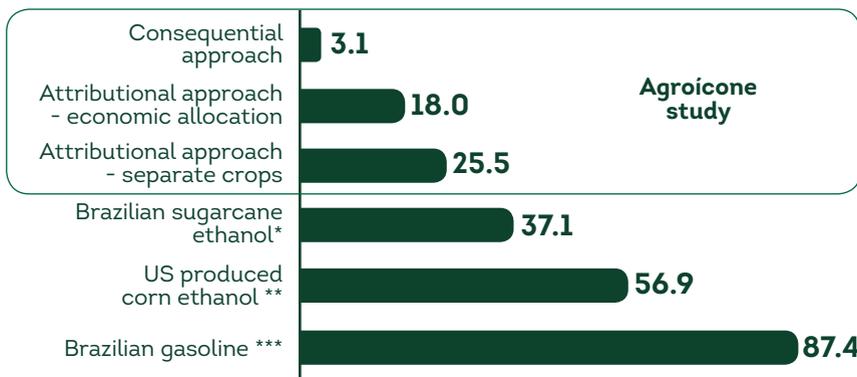
**70% reduction**  
in GHG emissions is the carbon footprint gain of Brazilian corn ethanol over gasoline

and Environmental Analysis of Corn Ethanol Production in the Brazilian Midwest". An article based on this study was submitted for publication to a scientific journal.

The study included the attributional and consequential approaches adopted in this type of research. The consequential approach considers the dynamic impacts that the performance of a corn ethanol plant generates through coproducts. DDGs for animal nutrition, with the potential to reduce the need for soybean crop expansion, and bioelectricity, generated from biomass and exported to the domestic electricity system, have positive effects on land use, carbon storage and displacement of electricity generated from fossil sources. In this approach, the carbon footprint of the biofuel we produce is 3.1 gCO<sub>2</sub>e/MJ.

In the attributional approach, two distinct scenarios were researched resulting in a carbon footprint of Brazilian corn ethanol between 18 gCO<sub>2</sub>e/MJ and 25 gCO<sub>2</sub>e/MJ. Within this range, the use of biofuel provides a 70% reduction in GHG emissions compared to domestic gasoline, and also reduces GHG versus corn ethanol produced in the United States thanks to our production model.

## Carbon Footprint (gCO<sub>2</sub>e/MJ)



\*Attributional approach - Seabra et al. (2011).  
 \*\*Attributional approach - Wang et al. (2010).  
 \*\*\*Attributional approach - Cavallet et al. (2012).



## Advantages of Brazilian corn ethanol production

Two factors underpin the environmental advantages of corn ethanol production in Brazil: (i) the use of biomass as an energy source in industry and (ii) the use of second crop corn as an input for biofuel production. The study found that planted forest eucalyptus used in our boilers has a high potential to store carbon during the tree development phase and is more efficient in this regard than other types of farming activities, such as pasture maintenance.

Biomass availability is a typical feature of Brazil due to its territorial extension and climatic conditions. The adaptation of U.S. technology to this scenario allowed the evolution of the production model, allowing the replacement of fossil fuels (natural gas and coal) with steam production.

Second crop corn has been produced in Brazil since the 1980s. Given that this cereal is grown in the same area as soybean crops, there is no need to open new land. This cultivation technique helps to protect the soil in soybean off-season, improve nutrient fixation and reduce fertilization and soil preparation costs.

In recent years, however, increased productivity in the field has led to corn production reaching consecutive records and creating a number of challenges for producers, such as bottlenecks in production flows, falling prices and a deficit in storage locations. Therefore, the growth of ethanol production in the Midwest region adds value to this commodity in a sustainable way, while strengthening agribusiness and placing the country on the path of biofuel technological development.

## Forest development and renewable energy

Our energy matrix is totally renewable and is based on biomass acquired from eucalyptus growers and companies that are regulated by environmental agencies and have authorized forest management plans. In the 2018/2019 crop year, we consumed 203.3 thousand tons, including eucalyptus woodchips, saw dust, wood residues, and rice husk, among other types of materials with high calorific value.

Our plan foresees that by the year 2024 most of the biomass will be supplied to our plants through eucalyptus planted forests and certified by entities that assure the sustainable management of those areas.

To reach that level, we have been acting on different fronts since we began our operations at Lucas do Rio Verde. One of our strategies is the acquisition of areas where eucalyptus already exists at harvest point to be used according to our plants' needs. This practice is commonly known as "standing timber purchase". We have also discussed business opportunities for investor groups and large agroforestry companies for large-scale plantation, the so-called Timber Investment Management Organizations (TIMOs).



**203**  
**thousand tons**

of biomass  
supplied our  
boilers in the  
2018/2019  
crop year





Another initiative undertaken by FS Bioenergia is the Forest Development Program, intended for small and medium farmers in Mato Grosso State. By 2023, our goal is to reach a total area of 30 thousand hectares planted with eucalyptus trees in small and medium farms in the state. To this end, we have entered into future purchase contracts and we also support partners by providing them with technical information, initial investment loans and field management support. In the program's first year, we signed contracts with 11 producers, totaling 4,000 hectares.

We also seek to strengthen tools that provide the use of other types of sustainable biomass, such as rice husk. Furthermore, we plan to start a pilot project to assess the viability of bamboo, as this tree species grows faster than eucalyptus.

Through incentives to sustainable biomass production in Mato Grosso State, which is an activity with high carbon sequestration potential, our company is in line with the PCI (Produce, Conserve and Include) Strategy. This proposal was presented by the state government in 2015, during the Paris Climate Conference (COP-21). It was the largest effort undertaken by a subnational state to mitigate climate change.

The PCI Strategy aims to promote the sequestration of 6 million tCO<sub>2</sub>e through projects based on the efficiency of agricultural and forestry production, conservation of native vegetation and inclusion of family farming and traditional populations. The Forest Development Program, the increase in biofuel production within Mato Grosso State and other related initiatives were presented to the local government through the Brazilian Corn Ethanol Association (UNEM), of which we are members.

Through the **Forest Development Program**, we are supporting small and medium farmers in Mato Grosso State to reach the target of **30 thousand hectares** planted with eucalyptus trees in that Brazilian region **by 2023**

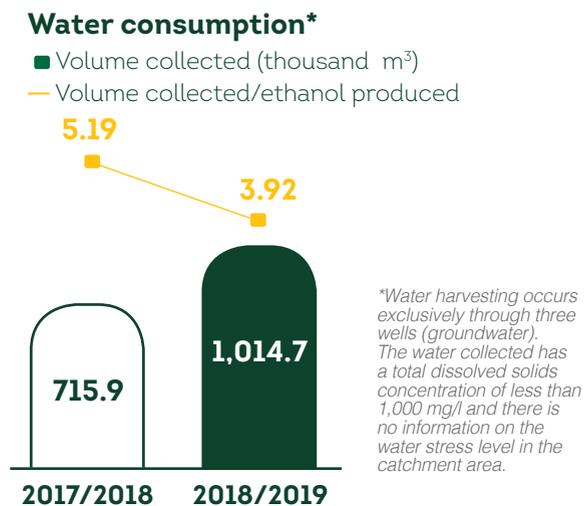
# Commitment to the environment

Our environmental governance model is continually evolving, and is always aimed at ensuring the company’s commitment to complying with the Brazilian legislation, identifying and mitigating environmental risks and improving our operations to contribute to the country’s sustainable growth. In the 2018/2019 crop year, we set up a corporate area dedicated to environmental management and continued to build monitoring and control tools that cover the existing plant and the plants to be opened.

The water used for steam generation, corn cooking and equipment cooling is collected from three artesian wells installed in our plant. We have been able to increase our efficiency through water recirculation systems. In the 2018/2019 crop year, we reached the milestone of 3.9 liters of water for each liter of ethanol produced. In absolute terms, consumption increased due to the plant’s extension and production growth.

Boasting a low environmental impact, our first plant was installed in an industrial area in the municipality of Lucas do Rio Verde, where other large-size factories are located. Waste from the production process – like ashes and organic matter from corn cleaning – is reused in agricultural activities and the materials we dispose of generated by the administrative areas receive proper treatment by specialist companies.

Expansion works of the Lucas do Rio Verde unit and the construction of the Sorriso plant are activities that cause a temporary increase in construction waste. Engineering plans establish adequate control mechanisms for these materials.



Our production process has a **low environmental impact**, given that virtually all waste is reused and there is no significant generation of industrial wastewater

## THE GROWTH CHALLENGE

One of the main focuses of our environmental management area has been on obtaining the necessary licenses for building, expanding and running our plants. Since the 100% corn ethanol production model is innovative in Brazil, we have sought to submit to regulatory bodies all the required documents and studies that prove the sustainability of our production model. Currently, our operating licenses establish a number of environmental conditions that we have regularly complied with. Other types of environment licenses and permits are being requested as we move forward with the expansion plan of our units. Since the opening of the Lucas do Rio Verde plant, we have not received any penalties or sanctions from environmental agencies.

Our industrial production does not generate significant wastewater. The water discharged by the plant, which originates from the equipment cooling process, undergoes internal treatment, as does the wastewater from administrative areas, which is sent to an infiltration pond.

We also monitor and control our plant's atmospheric emissions in accordance with the legal parameters and conditions established in the environmental licensing process. Every year we file an emissions report with the Mato Grosso State Environment Department (SEMA-MT). Measurements taken show that the emission rates are below regulatory limits.

<b>Atmospheric emissions</b> (tons)*	<b>2018/2019 crop</b>	<b>2017/2018 crop</b>
Particulate matter	87.25	97.92
CO	44.07	1,016.17
NOx	35.43	64.59
SO <sub>2</sub>	11.25	0.21

*\*Estimated volumes based on the annual measurement performed as part of the environmental licensing conditions for the Lucas do Rio Verde plant. The license considers the plant's effective days of operation in each period (250 days in the 2017/2018 crop year and 353 days in the 2018/2019 crop year).*





# Stake holders

# Governance and compliance constantly evolving

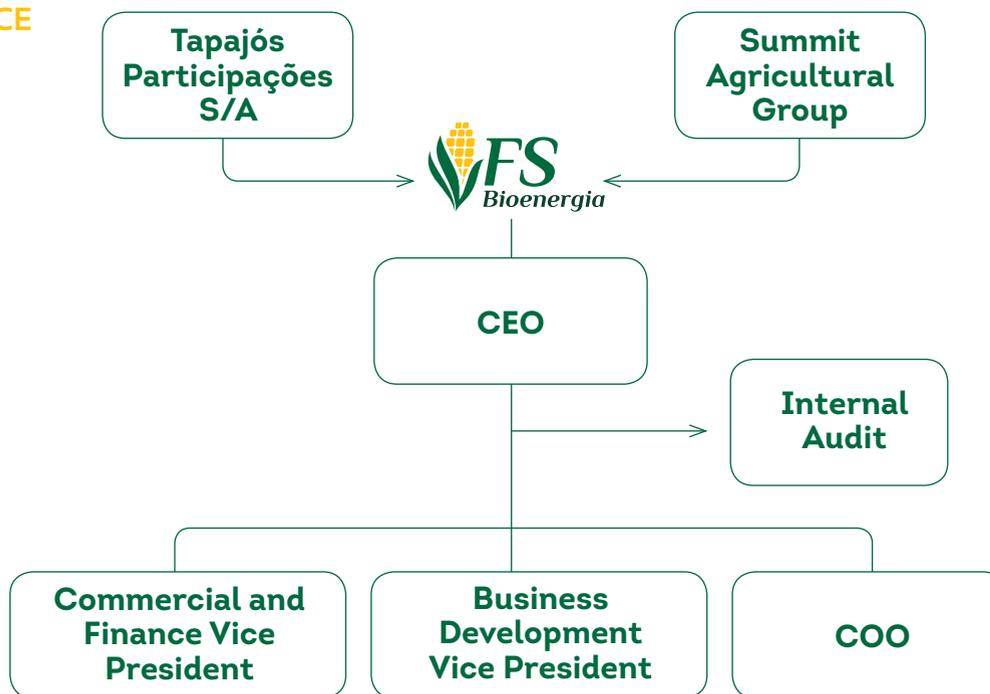
FS Bioenergia is a Brazilian limited liability company created from the long-term vision and entrepreneurial spirit of its partners Summit Agricultural Group, a US-based investment fund with experience in corn ethanol production, and Tapajós Participações S/A, with extensive experience in the Brazilian agribusiness sector.

We have an Advisory Board made up of eight non-executive members who provide guidance to the partners. Up to five members are nominated by the Summit Agricultural Group and three members by Tapajós Participações S/A. The Board holds monthly meetings

attended by the partners and appointed Officers to discuss and assess the execution of the strategic plan and the course of the business plan.

One of our main governance guidelines is to ensure compliance with Brazilian and international laws and develop activities with ethics, transparency, integrity and respect for all stakeholders that are part of our value chain. Compliance with the Anti-Corruption Law (12,846/2013) in Brazil and the US Foreign Corrupt Practices Act (FCPA) is paramount for sustainable value creation in our business model.

## GOVERNANCE STRUCTURE



We provide **recurring training** to our employees on company conduct and compliance guidelines and our **Code of Ethics** is publicly available to all our partners



After the opening of the Lucas do Rio Verde plant, we began mapping the corporate policies that we will structure to guide the activities from different areas in line with our shareholders' vision and strategic goal. When the mapping is completed, we will have a set of 53 policies to address various critical themes and aspects for the company. All documents will be available to employees on an internal system.

The first phase of policy development and approval was completed in the 2018/2019 crop year and two more phases are underway. In the first phase, we published 21 governance policies. These include the formalization of the Ethics Committee and the Confidential Channel for complaints related to fraud, corruption, behavioral deviations and other acts that violate our Code of Ethics.

Made up of employees from different company areas, the Ethics Committee acts as an advisory, deliberative and normative body and reports directly

to the CEO. Among its tasks, the Committee is responsible for analyzing behavioral deviations reported by the Confidential Channel and for assessing the actions to be taken.

Reports of fraud or corruption acts follow a different investigation route. Any reported cases are referred directly to the CEO and to the Internal Audit, who will define the best verification method and the enforcing of applicable punishments. If the complaint is related to an act of the CEO himself, it is referred to the Board of Directors. Since the company was founded, no fraud or corruption cases have been reported.

To minimize our exposure to this risk, we have established a training routine that covers 100% of our employees, as well as third parties representing our company and interacting with government agencies – lawyers, environmental consultants, among other types of suppliers.



**100%**  
of employees  
are trained  
in ethical  
conduct and  
anti-corruption  
practices



Training on these topics, especially the FCPA and the Brazilian Anti-Corruption Law, is conducted during the integration phase of new hires. On a monthly basis, we identify newly hired employees who have not had access to this content for any reason and provide them with training. The content of the training on the Code of Ethics compliance, legislation and guidelines is reinforced in new engagement events. In these recurring training sessions, 100% of employees are involved.

Our anti-corruption guidelines are also widely disseminated to internal stakeholders through communication campaigns, signaling at the workplace, and corporate computer backgrounds. On our institutional website, our Code of Ethics is available to all our stakeholders and it is also digitally delivered to FS Bioenergia suppliers.

**Confidential Channel**

Our Confidential Channel service can be contacted via:

 0800 792 1013

 [www.canalconfidencial.com.br](http://www.canalconfidencial.com.br)

 [fsbioenergia@canalconfidencial.com.br](mailto:fsbioenergia@canalconfidencial.com.br)

Reports may be anonymous. The company ensures complete confidentiality of the information reported to or received by the Ethics Committee



## PROMOTION OF SECTORAL AGENDAS FOR SUSTAINABLE DEVELOPMENT

Our governance model and our alignment with the anti-corruption laws in Brazil and the United States drive our company to act responsibly and share the benefits and competitive advantages of Brazilian corn ethanol. Our participation in relevant trade associations is strategic in this regard.

The main representative entity of our sector is the Brazilian Corn Ethanol Association (UNEM), of which we are members. Our company is also a member of the Mato Grosso State Sugar and Alcohol Industry Syndicate (Sindalcool-MT), with a focus on strengthening the relationship with our ethanol customers and acting jointly with UNEM on institutional agendas. In both entities, we participate in work groups, governing boards and regular member meetings.

Through Sindalcool, we follow the discussions and meetings with the Mato Grosso State Federation of Industries (FIEMT). We also work in partnership with the Mato Grosso Reforestation Association (Arefloresta), which contributes to advancing the sustainable forest management agenda in civil society and in the media. In the coming years, we plan to increase our participation in trade associations related to renewable energy, biomass and animal nutrition.

## Community development in Mato Grosso State

Job creation, workforce training, tax collection increase and technological development are just some examples of social benefits directly related to the opening of the 100% corn ethanol market in Mato Grosso State.

The installation of a corn ethanol plant like ours at Lucas do Rio Verde can create approximately 8.5 thousand direct and indirect jobs, 19% of them within the state. A venture of this size has the potential to generate an additional BRL 1.5 billion in revenue for the Brazilian economy, representing an increase of BRL 80 million in direct and indirect net taxes. This difference occurs because the production of domestic corn ethanol connects an entire supply chain across the country, adding value to different sectors.

The operation of a corn ethanol plant with an annual production capacity of 500 million liters of ethanol and its coproducts associated with the production process (DDGs, corn oil and bioelectricity) can create up to 4.5 thousand jobs across its supply chain, 65% of this total in Mato Grosso State and more than half of those jobs in corn production. In this phase, the plant turns over about BR 2.5 billion annually, raising the Brazilian GDP by BRL 910 million. With this impact, an additional income of BRL 73 million is generated from ICMS and PIS Cofins taxes, plus BRL 130 million resulting from both taxes being imposed on the sale of ethanol.

These figures are part of the “Socioeconomic and Environmental Analysis of Corn Ethanol Production in the Brazilian Midwest”, a study which was carried out in partnership with the specialist consultants Agroicone. Further research findings are presented on page 29.



As well as this socioeconomic impact, we forge partnerships for the development of the local communities surrounding our plant. In Lucas do Rio Verde, we make donations to the city hospital and contribute to health promotion and healthcare improvement. Through a partnership with the city government, we donate the ashes from our boilers to local farmers, who use them to fertilize their crops. We also make donations directly to partner farmers. Since the beginning of our operations at Lucas do Rio Verde, we have donated 22 thousand tons of ashes, including transportation costs to rural properties.

The construction of our new plant in the municipality of Sorriso has created about **1.5 thousand new jobs**

# Ethanol value chain partnerships

Our suppliers' development and building partnerships based on ethics and fair trade drive the sustainable and innovative model we undertake for biofuel production in Brazil. Our supply chain is supported by three key areas.

The two main inputs we use are purchased through the work of the corn and biomass origination teams, who liaise with agricultural producers and companies located in Mato Grosso State. In the 2018/2019 crop year, we processed about 828.6 thousand tons of these inputs.

One of our guidelines is to favor local purchases to strengthen the economic chain of the municipalities where our plants are installed. The corn we use to produce ethanol is purchased directly from farmers, cooperatives, trading firms and agro-dealers, based mainly at Lucas do Rio Verde, Tapurah and Sorriso. The geographical proximity of the plants is critical to increasing our competitiveness and cost efficiency.

Materials used in the biofuel industry (tons)	2018/2019 crop	2017/2018 crop
<b>Renewable sources</b>		
Corn	625,389.10	342,231.37
Eucalyptus equivalent biomass*	203,304.60	140,966.26
<b>Total</b>	<b>828,693.70</b>	<b>483,197.63</b>
<b>Non-renewable sources</b>		
Sulfuric Acid 98%	1,886.82	455.14
Sodium hydroxide 50%	1,238.20	705.99
Urea	1,222.88	730.00
Nutrient	266.48	103.28
Gluco amylase enzyme	263.93	123.90
Alpha amylase enzyme	246.31	142.52
Oil additive	47.08	0.00
Protease	31.11	3.60
Yeast	28.01	25.34
Sulfamic acid	25.05	22.00
Others**	7.23	84.80
<b>Total</b>	<b>5,263.09</b>	<b>2,396.56</b>

\*Includes eucalyptus, other types of wood, saw dust, rice husk, etc.  
\*\*Antibiotic, orange dye, 28% ammonium hydroxide, hop extract, neutralizer and fermeasure.

Nearly **100% of the inputs** used in our business model come from **renewable sources** and are produced on areas close to our plant

We continually monitor corn prices on the Chicago commodities exchange and corn trading activity in the market, thus mitigating supply and financial risks. We also maintain a close relationship with producers to identify business opportunities and promote strategic alignment with the company. We also use barter as a trade method, whereby we finance planting with inputs in exchange for the purchase of harvested grain. This method should account for about 25% of our purchases by 2022.

Our origination process includes the verification of environmental embargoes issued by the Mato Grosso State Department of Environment (SEMA-MT) and the Brazilian Institute of Environment and Renewable Natural Resources (IBAMA). The existence of this type of restriction is a supplier qualification criterion in contracting processes. For biomass, we track all suppliers' environmental compliance documentation and invest in forest development for small local producers (learn more on page 31).



Corn and biomass purchasing processes include **supplier assessment** to ensure **environmental compliance** across our value chain



## STAKEHOLDERS

We also have a procurement area that manages all other types of contracts. In this group are, for example, suppliers of materials for the implementation of new plants, service providers and purchase of industrial inputs, such as chemicals and other controlled substances.

These suppliers undergo a background check primarily focused on supply reliability and anti-corruption issues. This process is underpinned by a system that ensures that any legal, tax, labor and environmental issues are cleared with the relevant regulatory bodies. As of 2019, all new suppliers will undergo this evaluation, which is renewed every six months.

Furthermore, our teams regularly visit strategic suppliers to assess a set of requirements, including labor legislation compliance. For suppliers employing contract workers, we constantly monitor health and safety aspects. Payment for the services provided are conditional upon proof of compliance with tax and labor requirements.

At the time of contracting, all suppliers receive the Supplier Code of Ethics, also available on our website. Through this set of control mechanisms for different types of suppliers, we have not identified any risks or occurrences of child, forced or slave labor in our supply chain.





# GRI Annex

# GRI Disclosures supplement

## 102-8

Building, surveillance, cleaning and reception activities are mostly performed by third parties. Furthermore, we hire outsourced specialists for specific tasks in the production areas, who work on demand.

Number of Employees*	2018/2019 crop			2017/2018 crop		
	Men	Women	Total	Men	Women	Total
<b>By employment contract</b>						
Indefinite time	215	50	<b>265</b>	143	34	<b>177</b>
Definite time	4	2	<b>6</b>	0	2	<b>2</b>
<b>By workday</b>						
4 hours daily (100 hours monthly)	4	2	<b>6</b>	0	2	<b>2</b>
8 hours daily (210 to 220 hours monthly)	125	41	<b>166</b>	55	27	<b>82</b>
12 hours daily (192.5 hours monthly)	90	9	<b>99</b>	88	7	<b>95</b>
<b>By functional role</b>						
Chief Officers	2	0	<b>2</b>	0	0	<b>0</b>
Managers	10	0	<b>10</b>	7	0	<b>7</b>
Supervisors	3	2	<b>5</b>	2	0	<b>2</b>
Administrative	65	35	<b>100</b>	24	21	<b>45</b>
Industrial	139	15	<b>154</b>	110	15	<b>125</b>
<b>Total</b>	<b>219</b>	<b>52</b>	<b>271</b>	<b>143</b>	<b>36</b>	<b>179</b>

*\*Data extracted from computerized headcount management system, considering the base date of March 31 (end of each crop year) and without considering interns. All employees work in Mato Grosso State (Brazilian Midwest region).*

**307-1 and 419-1**

Since its foundation, FS Bioenergia has not received substantial penalties (fines from BRL 50 thousand up) related to environmental, labor, tax requirements, and the transportation of inputs and products.

This material references the following Disclosures:

- 102-1, 102-2, 102-3, 102-4, 102-5, 102-6, 102-7, 102-8, 102-9, 102-10, 102-11, 102-12, 102-13, 102-14, 102-16, 102-17, 102-18, 102-50, 102-51, 102-52, 102-53, 102-55 and 102-56 from GRI 102: General Disclosures 2016
- 202-1 from GRI 202: Market Presence 2016
- 203-2 from GRI 203: Indirect Economic Impacts 2016
- 205-2 and 205-3 from GRI 205: Anti-Corruption 2016
- 301-1 from GRI 301: Materials 2016
- 302-1 from GRI 302: Energy 2016
- 303-1, 303-2 and 303-3 from GRI 303: Water and Effluents 2018
- 304-2 from GRI 304: Biodiversity 2016
- 305-7 from GRI 305: Emissions 2016
- 307-1 from GRI 307: Environmental Compliance 2016
- 403-1, 403-2, 403-4, 403-5, 403-6 and 403-9 from GRI 403: Occupational Health and Safety 2018
- 404-2 from GRI 404: Training and Education 2016
- 408-1 from GRI 408: Child Labor 2016
- 409-1 from GRI 409: Forced or Compulsory Labor 2016
- 413-1 from GRI 413: Local Communities 2016
- 419-1 from GRI 419: Socioeconomic Compliance 2016



**For the GRI-Referenced Service, GRI Services reviewed that the report clearly references all GRI Standards and disclosures used. The service was performed on the Brazilian Portuguese version of the report.**

# GRI content index

GRI Standard	Disclosure	Page	Omissions
<b>General disclosures</b>			
<b>GRI 102   General disclosures 2016</b>	<b>Organizational profile</b>		
	102-1   Name of the organization	3	-
	102-2   Activities, brands, products, and services	7, 8, 10, 11, 12, 14 and 15	-
	102-3   Location of headquarters	7	-
	102-4   Location of operations	8	-
	102-5   Ownership and legal form	37	-
	102-6   Markets served	10, 11, 14 and 15	-
	102-7   Scale of the organization	8, 9 and 17	-
	102-8   Information on employees and other workers	21 and 46	-
	102-9   Supply chain	31, 32, 42, 43 and 44	-
	102-10   Significant changes to the organization and its supply chain	7	-
	102-11   Precautionary Principle or approach	25, 33 and 34	-
	102-12   External initiatives	13 and 32	-
	102-13   Membership of associations	40	-
	<b>Strategy</b>		
	102-14   Statement from senior decision-maker	4 and 5	-
	<b>Ethics and integrity</b>		
	102-16   Values, principles, standards, and norms of behavior	23, 37 and 38	-
102-17   Mechanisms for advice and concerns about ethics	39	-	
<b>Governance</b>			
102-18   Governance structure	37	-	

GRI Standard	Disclosure	Page	Omissions
<b>GRI 102   General disclosures 2016</b>	<b>Reporting practice</b>		
	102-50   Reporting period	3	-
	102-51   Date of most recent report	3	-
	102-52   Reporting cycle	3	-
	102-53   Contact point for questions regarding the report	3	-
	102-55   GRI content index	48, 49 and 50	-
	102-56   External assurance	3, 51 and 52	-
<b>Specific disclosure</b>			
<b>GRI 202   Market presence 2016</b>	202-1   Ratios of standard entry level wage by gender compared to local minimum wage	24	-
<b>GRI 203   Indirect economic impacts 2016</b>	203-2   Significant indirect economic impacts	41	-
<b>GRI 205   Anti-corruption 2016</b>	205-2   Communication and training about anti-corruption policies and procedures	38 and 39	-
	205-3   Confirmed incidents of corruption and actions taken	38	-
<b>GRI 301   Materials 2016</b>	301-1   Materials used by weight or volume	42	-
<b>GRI 302   Energy 2016</b>	302-1   Energy consumption within the organization	18	-
<b>GRI 303   Water and effluents 2018</b>	303-1   Interactions with water as a shared resource	33	-
	303-2   Management of water discharge-related impacts	35	-
	303-3   Water withdrawal	33	-
<b>GRI 304   Biodiversity 2016</b>	304-2   Significant impacts of activities, products, and services on biodiversity	33 and 35	-

GRI Standard	Disclosure	Page	Omissions
<b>GRI 305   Emissions 2016</b>	305-7   Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	35	-
<b>GRI 307   Environmental compliance 2016</b>	307-1   Non-compliance with environmental laws and regulations	34 and 47	-
<b>GRI 403   Occupational health and safety 2018</b>	403-1   Occupational health and safety management system	25	-
	403-2   Hazard identification, risk assessment, and incident investigation	26 and 27	-
	403-4   Worker participation, consultation, and communication on occupational health and safety	27	-
	403-5   Worker training on occupational health and safety	26	-
	403-6   Promotion of worker health	27	-
	403-9   Work-related injuries	27	-
<b>GRI 404   Training and education 2016</b>	404-2   Programs for upgrading employee skills and transition assistance programs	22	-
<b>GRI 408   Child labor 2016</b>	408-1   Operations and suppliers at significant risk for incidents of child labor	44	-
<b>GRI 409   Forced or compulsory labor 2016</b>	409-1   Operations and suppliers at significant risk for incidents of forced or compulsory labor	44	-
<b>GRI 413   Local communities 2016</b>	413-1   Operations with local community engagement, impact assessments, and development programs	41	-
<b>GRI 419   Socioeconomic compliance 2016</b>	419-1   Non-compliance with laws and regulations in the social and economic area	47	-

# Assurance Report



KPMG Financial Risk & Actuarial Services Ltda.  
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## Limited assurance report issued by independent auditors

To the Board of Directors, Shareholders and Stakeholders  
**FS Agrisolutions Indústria de Biocombustíveis Ltda.**  
São Paulo - SP

### Introduction

We have been engaged by FS Agrisolutions Indústria de Biocombustíveis Ltda (FS Bioenergia or "Company") to apply limited assurance procedures on the sustainability information disclosed in the Annual Sustainability Report - 2018/2019 Crop Year, related to the crop year ended March 31<sup>st</sup>, 2019.

### Responsibilities of FS Bioenergia's Management

The Management of FS Bioenergia is responsible for adequately preparing and presenting the sustainability information disclosed in Annual Sustainability Report - 2018/2019 Crop Year, using the Global Reporting Initiative's GRI Sustainability Reporting Standards (GRI) as a reference, with the internal controls it has determined necessary to enable the preparation of this information free of material misstatement, whether caused by fraud or error.

### Independent auditors' responsibility

Our responsibility is to express a conclusion about the information disclosed in the Annual Sustainability Report - 2018/2019 Crop Year of FS Bioenergia based on a limited assurance engagement conducted in accordance with the methodology developed globally by KPMG for assurance of social and environmental information disclosed in sustainability reports - *KPMG Sustainability Assurance Manual - KSAM*, applicable to historical non-financial information.

These standards require compliance with ethical requirements, including independence ones, and the engagement is also conducted to provide limited assurance that the information disclosed in the FS Bioenergia's Annual Sustainability Report - 2018/2019 Crop Year, taken as a whole, is free from material misstatement.

A limited assurance engagement conducted in accordance with the KPMG Sustainability Assurance Manual - KSAM consists mainly of questions and interviews with the Management of FS Bioenergia and other professionals of the Company involved in the preparation of the information disclosed in the Annual Sustainability Report - 2018/2019 Crop Year and use of analytical procedures to obtain evidence that enables us to reach a limited assurance conclusion about the sustainability information taken as a whole. A limited assurance engagement also requires additional procedures when the independent auditor acknowledges issues which may lead them to believe that the information disclosed in the Annual Sustainability Report - 2018/2019 Crop Year taken as a whole could present material misstatement.

The selected procedures were based on our understanding of the issues related to the compilation, materiality and presentation of the information disclosed in the Annual Sustainability Report - 2018/2019 Crop Year, on other engagement circumstances and also on our considerations regarding areas and processes associated with material sustainability information disclosed where relevant misstatement could exist. The procedures consisted of:

- (a) engagement planning: considering the material aspects for FS Bioenergia's activities, the relevance of the information disclosed, the amount of quantitative and qualitative information and the operational systems and internal controls that served as a basis for preparation of the information in the FS Bioenergia's Annual Sustainability Report - 2018/2019 Crop Year. This analysis defined the indicators to be checked in details;
- (b) understanding and analysis of disclosed information related to material aspects management;
- (c) analysis of preparation processes of the Annual Sustainability Report - 2018/2019 Crop Year and its structure and content;
- (d) evaluation of non financial indicators selected:
  - understanding of the calculation methodology and procedures for the compilation of indicators through interviews with management responsible for data preparation;
  - application of analytical procedures regarding data and interviews for qualitative information and their correlation with indicators disclosed in the Annual Sustainability Report - 2018/2019 Crop Year;
  - analysis of evidence supporting the disclosed information;
  - visits to FS Bioenergia's operations and to the corporate office for application of these procedures, and items (b) and (c);

We believe that the information, evidence and results we have obtained are sufficient and appropriate to provide a basis for our limited assurance conclusion.



#### Scope and limitations

The procedures applied to a limited assurance engagement are substantially less extensive than those applied to a reasonable assurance engagement. Therefore, we cannot provide reasonable assurance that we are aware of all the issues that would have been identified in a reasonable assurance engagement, which aims to issue an opinion. If we had conducted a reasonable assurance engagement, we may have identified other issues and possible misstatements within the information presented in the Annual Sustainability Report - 2018/2019 Crop Year.

Nonfinancial data is subject to more inherent limitations than financial data, due to the nature and diversity of the methods used to determine, calculate or estimate these data. Qualitative interpretation of the data's materiality, relevance and accuracy are subject to individual assumptions and judgments. Additionally, we have not examined data related to prior periods, to evaluate the adequacy of policies, practices and sustainability performance, nor future projections.

#### Conclusion

Based on the procedures carried out, described earlier in this report, we have not identified any relevant information that leads us to believe that the information in FS Bioenergia's Annual Sustainability Report - 2018/2019 Crop Year is not fairly stated in all material aspects in accordance with its source records and files.

São Paulo, September 12<sup>th</sup>, 2019

KPMG Financial Risk & Actuarial Services Ltda.

  
Ricardo Algis Zibas  
Principal



## Credits

### **General coordination**

Strategic Development Department  
of FS Bioenergia

### **Content, GRI consulting and design**

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### **Photos**

FS Bioenergia's collection