

Annual Sustainability Report
(2020/2021 Harvest)



CMAA



ENERGY THAT TRANSFORMS



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MESSAGE FROM THE PRESIDENT



Carlos Eduardo Turchetto Santos
CEO of CMAA

FF

Throughout our history, we have developed a profitable business model in the production of renewable energy. At the three units that make up the group, our bio-plants efficiently produce sugar, ethanol and electricity in the production chain. Since the first harvest, in 2010, we have experienced an average growth of 20%, and this achievement encourages us to continue to invest in preparing our teams and improving processes in the pursuit of business continuity.

In the 2020/2021 Harvest, even in an adverse scenario, considering impacts from the pandemic and extreme weather conditions, we surpassed ourselves by seeking operational excellence with professionalism and working in a safe way with our employees. In this context, we are rethinking our strategy on how to continue building the future in a sustainable way, adding value to our stakeholders.

We reshaped our management approach, ensuring the continuation of solid sustain-

able growth, through robust corporate governance, and integrating the main themes into the business strategy. We understand that building the future requires a sustainability agenda in line with the best Environment, Social and Governance (ESG) practices and a structured management that permeates agro-industrial processes with a focus on social and environmental issues.

With this goal in mind, CMAA implemented the Sustainability area, adding specialists in the management of Environment, Social Responsibility and Communication topics to the structure. This way, we defined guidelines to address the issue in a more systemic way, approaching socioenvironmental actions and enhancing internal and external communication.

The pandemic made us realize the transforming force of solidarity and the importance of creating conditions to increase our presence in the communities where we operate. This inspired us to define with the communities

the guidelines for programs that meet the main local demands.

Additionally, we are working to improve diversity together with our employees and set a goal of increasing the representation of women in our operations. Overall, we know that the success factor in our business is people. There are more than 2,700 employees who carry out their activities every day in order to surpass results and in the continuous pursuit of excellence.

In this first Sustainability Report, we want to share our 'CMAA Way of Being', which reinforces the practice of our values, recognizes our employees and is dedicated to building the future of the next generations. It is the path we have chosen to take and we invite the CMAA's internal team, suppliers, partners and customers to participate in this transformation process.



ABOUT US

Companhia Mineira de Açúcar e Álcool (CMAA) is one of the largest producers of ethanol, sugar and bioelectricity of the state of Minas Gerais. With agricultural and industrial origins, CMAA was founded in 2006 by the JF Citrus group and joined the Indoagri group in 2013.

Our strategic pillars were developed with a strong focus on operational efficiency, and the organizational culture was based on these values.

The company comprises three units located in the Triângulo Mineiro region: Vale do Tijuco, in Uberaba; Vale do Pontal, in Limeira do Oeste; and Canápolis, in the municipality of the same name.

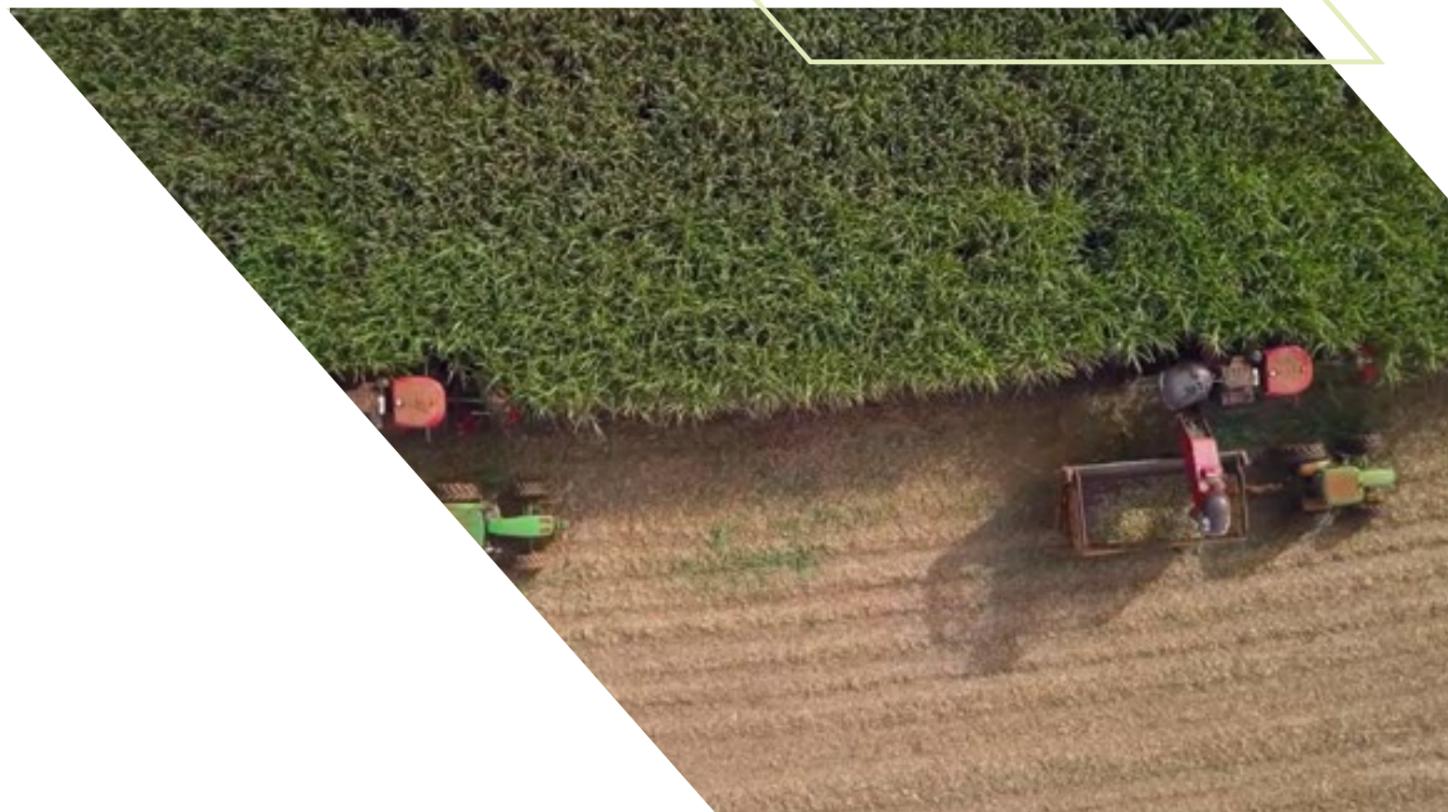
The following video shows part of the company's history, since its creation.



Vision

To be bold, seeking to be among the best in the production of renewable energy and food, with profitability and professionalism, in an open and safe environment, with respect for the community and the environment.

Our way: we are bold, professional, we "make the rice and beans" (Brazilian expression for doing the basics) well done, with mutual respect among people and a mindset of owners of the business.



Values



People: we hire professionals of unquestionable character, interested, who like people and challenges, passionate about what they do, hard-workers with a spark in their eyes. We work as a team, take care of personal life and share responsibilities in decision-making.



Integrity: we base our actions on the highest ethical and professional standards. We conduct our business with transparency and integrity.



Results: we aggressively seek results with a long-term vision and share them with the team according to the participation and commitment of each individual.



Quality: we seek and implement standards of excellence in everything we do.

ABOUT US

Timeline



○ **2005**
CMAA's project development



○ **2007**
Implementation of the first sugarcane nursery at **Vale do Tijuco** unit



○ **2010**
Start of **CMAA's** activities with **Vale do Tijuco** unit



○ **2011**
Start of the expansion process of **Vale do Tijuco** unit



○ **2016**
Acquisition of **Vale do Pontal** unit



○ **2017**
Acquisition of **Canápolis** unit



○ **2018**
Incorporation and consolidation of **Vale do Pontal** unit



○ **2019**
Renovations of **Canápolis** unit



○ **2020**
Incorporation and consolidation of **Canápolis** unit on **CMAA**



2020/2021
HARVEST PERFORMANCE HIGHLIGHTS



7.7 million

tons of sugarcane milled
(+25.6% compared to
previous year)



R\$ 625.1 MI

Ebitda



528,000

tons of sugar produced
(+75% compared to previous year)



R\$ 176.2 MI

Net profit



160 milion

liters (tank storage capacity)



313,500

CBIOs issued (generating
income of R\$ 9.1 million)



R\$ 1,375 BI

net revenue (+41.4% compared
to previous year)



396,100

MWh marketed (enough
to supply 152 thousand
inhabitants per year¹)

¹ Per capita consumption in the Southeast region in the year 2020: 2.609 kWh/person (EPE, Anuário Estatístico de Energia Elétrica, 2021. Base-year 2020)

MATERIALITY

To determine CMAA's strategy on Environmental, Social and Corporate Governance (ESG), the company has studied how it influences and how it is influenced by the groups with which it has direct and indirect relations.

The point of view of these groups can help determine which themes should be prioritized and the company's positive or negative impacts – a process that serves as guideline for the company's strategic decisions. The following steps describe the process of defining the outline and the content of each topic.

1) Documentation review

A review of internal and external documentation was made for the sectoral benchmarking. The goal of this step was to identify initiatives and trends on the sugarcane bioenergy industry that may be applied to CMAA. Based on this research, 16 material themes were identified as references in stakeholders engagement.

2) Stakeholders engagement

CMAA has listed the relevant stakeholders for the process of building the company's materiality matrix. Each group was engaged through online interviews and/or surveys, according to the influence level over the company's activities.

Through these two methods, it was possible to identify and prioritize the interests and points of view of each group. The intention is for this process of stakeholder involvement to become a periodic activity, enabling an analysis of the company's evolution regarding these matters and the effectiveness of the measures taken to mitigate negative impacts or potentialize the positive ones.

The groups of higher relevance considered in the making of the materiality matrix were:



With the goal of continuing the process and the stakeholder engagement through the next harvests, CMAA provides a link to access the online survey, in which the stakeholders have the opportunity to actively participate in the prioritization of material topics and share their opinion about the report. To answer the survey, access the QR code:



The final analysis of materiality consists in the balance between economic, social and environmental impacts related to the material topics, considering the parties influenced by them. Based on the documentation review, the stakeholder engagement and the information collected in the previous phases, the most relevant topics for the business, that must be prioritized by CMAA, were determined.

Prioritized themes

- Health and Safety
- Development and well-being of employees
- Governance
- Development of local community
- Respect for local community
- Water management
- Sustainability strategy

CORPORATE GOVERNANCE

Governance

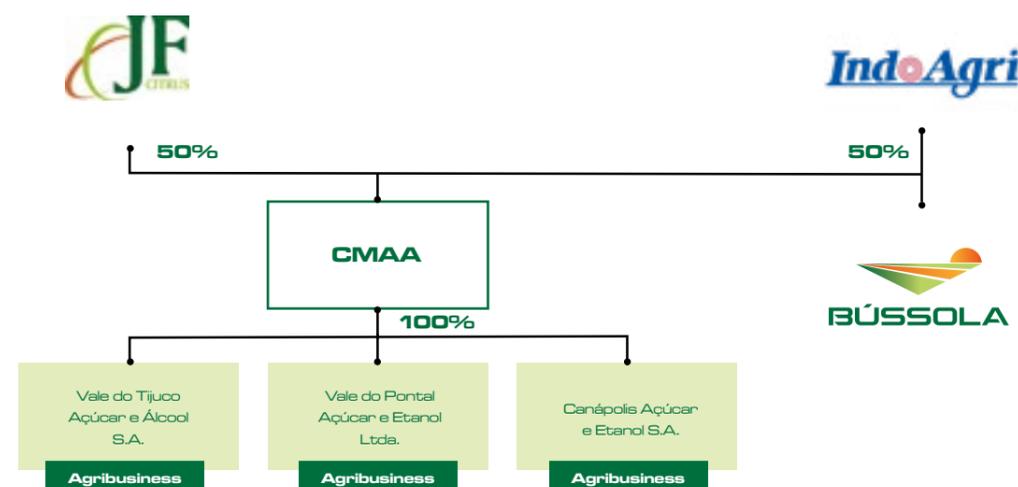
A modern company

CMAA is a joint venture between JF Citrus and IndoAgri, which share its control. The company is registered in the Brazilian securities commission as a public company, category B. CMAA was created already following good practices of corporate governance, focusing on transparency and accountability to its shareholders and other stakeholders.

By the end of 2020/2021 Harvest, its governance model included:

- Administrative Council with six members
- The president of the Administrative Council and the CEO can't accumulate positions
- Internal and external auditing
- Risk Committee

Shareholders



In March 2021, the members of the Administrative council were:

- José Francisco de Fátima Santos, **president**
- Luiz Gustavo Turchetto Santos, **counselor**
- Hansjorg Suelze, **counselor**
- Sunjadi Tirtarahardja, **counselor**
- Mark Julian Wakeford, **counselor**
- Moleonoto Thang ("Paulus"), **counselor**

In 2020, the CMAA Code of Conduct was established to provide guidelines for the actions of workers.

- The document provides a solid list of ethical beliefs that should orientate the decisions of employees, partners and suppliers following the company's culture, values and legal norms.

The Code of Conduct must be used by all who, directly or indirectly, have a relationship with CMAA, aiming for healthy conversations, the strengthening of relations among contributors and to build commitment based on trust between the company and its stakeholders.

The Code of Conduct can be accessed on this link



Risk management

CMAA has a Risk Management Policy with the goal of establishing principles, guidelines and responsibilities in the process of managing risks inherent to the company's business activities. They are divided in the following categories:

- Strategic
- Operational
- Compliance
- Financial
- Environmental

The risk management methodology is based on internationally recognized standards and frameworks and in what is established by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

The risks are identified jointly by the person responsible for each area and by an analyst of Internal Controls. The Risk Management area was implemented in 2016. After the 2021/2022 Harvest, the company plans to restructure this sector in order to include Compliance in it.

This restructuring implies the creation of a communication channel for complaints - safe and, if desired, anonymous - of actions considered to be unethical or that violate the standards of conduct and/or the law.



FINANCIAL PERFORMANCE

In the 2020/2021 Harvest, CMAA's operational results exceeded those of the previous period, staying above the targets set by the company. This confirmed our confidence in the strategy, even facing the challenges posed by the Covid-19 pandemic. In May 2020, the Canápolis unit began operating, whose performance, added to that of the Vale do Tijuco and Vale do Ponta units, provided the group with a record milling of 7.7 million tons of sugarcane in the period (25.6% above the result obtained in the 2019/2020 Harvest).

This growth helped to raise net revenue to R\$ 1.375 billion (41.4% above the R\$ 972.1 million in the previous harvest). The good result, combined with efficiency

gains, resulted in an Ebitda of R\$ 625.1 million (48.9% better than the R\$ 419.7 million of the previous year). The margin reached 45.5% (increase of 2.3 percentage points compared to the 2019-2020 Harvest) and the net profit reached R\$ 176.2 million (a figure 205.1% higher than that registered in the previous period, of R\$ \$57.7 million), which corresponds to 12.8% of revenue.

The net financial result was negative by R\$ 103.8 million (compared to R\$ 108.1 million in 2020). This means an improvement of 4% in this indicator, thanks mainly to the gains resulting from exchange rates variation due to hedge operations.

Production and sales on the rise

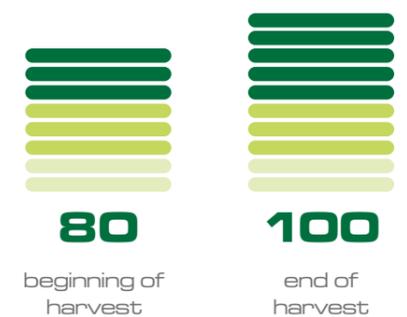
The harvest was marked by the lower volume of rainfall in the Triângulo Mineiro region, especially in the second half of 2020. Even so, the Sugarcane Industry Association (Unica) recorded 605.5 million tons milled across the country, an increase of 2.6% compared to the 590.4 million tons of the 2019/2020 cycle. Data consolidated by Unica show that the Total Recoverable Sugar (TRS), which indicates the quality of the sugarcane through the ability to convert it into sugar or ethanol, reached 144.7 kg/t, 4.4% above the previous agricultural cycle. At CMAA, this indicator was 138.1 kg/t, slightly above the 134.5 kg/t of the previous crop. From April 2020 to March 2021, the price of ethanol had two

distinct phases in Brazil: a sharp drop in the first semester because of the reduction in urban mobility caused by restrictions imposed at the beginning of the quarantine due to coronavirus, and a recovery in the second semester. The company's decision, given this reality, was to build new tanks to store ethanol, increasing flexibility in the commercial strategy, in order to honor all contracts. In record time (just 90 days), two tanks of 20 million liters each were built, to enable sales at a time when prices had recovered.

In this harvest, the ethanol storage capacity went from **80 million to 100 million** liters at Vale do Tijuco and from **40 million to 60 million** liters at Vale do Ponta.

Rise of ethanol storage capacity.

Vale do Tijuco



Vale do Ponta

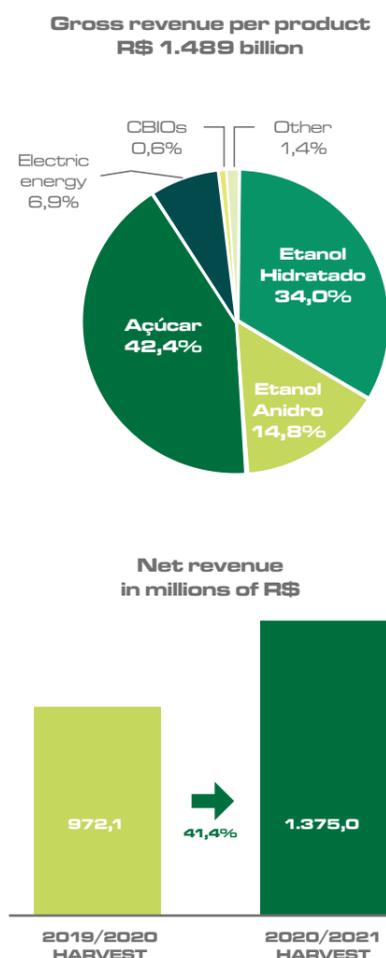


Millions of liters of ethanol.



FINANCIAL PERFORMANCE

In the 2020/2021 Harvest, sugar sales grew 81%, reaching 530 thousand tons (compared to 292,000 tons in the previous year), while the volume of ethanol sales was decreased by the same 2.4% observed in production. This resulted from a 38.1% increase in gross revenue (R\$ 1.489 billion, against R\$ 1.074 billion in the previous harvest). In the same period, the price of sugar maintained its upward trend and CMAA's strategy was to prioritize this item. In total, 528 thousand tons of sugar were produced (75% more than in the previous harvest) and 314 million liters of ethanol (a 2.4% reduction compared to the 2019/2020 period).



About CBIOs

The units issue a CBIOs certificate for each ton of CO2 captured and audited. Certificates are earned based on sugarcane plantations, which work as natural CO2 sequestration machines, in other words, the sugarcane captures carbon from the air and releases oxygen. The more ecological and renewable the cane field, the larger and more efficient this process. This way, the national policy of RenovaBio aims to expand the production of biofuels in Brazil and reduce the emission of greenhouse gases into the atmosphere. With the commercialization of CBIOs, there is also expectation of encouraging the demand for products and increasing the levels of energy efficiency, benefiting the entire production chain and society.

Decarbonization and bioenergy generation credits

Committed to sustainable growth, CMAA was certified to operate in the RenovaBio CBIO trading market. In the 2020/2021 Harvest, the Vale do Tijuco and Vale do Pontal units issued 313 thousand CBIOs, of which 255 thousand were sold, generating R\$ 9 million in revenue. For the new crop, the company is working to also include the Canápolis unit (which began operating in October 2020 and, therefore, only became eligible for certification in the program in April 2021).

In addition, bioenergy generation at the CMAA units totaled 403 thousand MWh, a rise of 9.5% from the 368,000 MWh of the previous harvest. Part of this energy was used in the unit themselves and the rest was sold on the domestic market.

Cost of goods sold and operating expenses

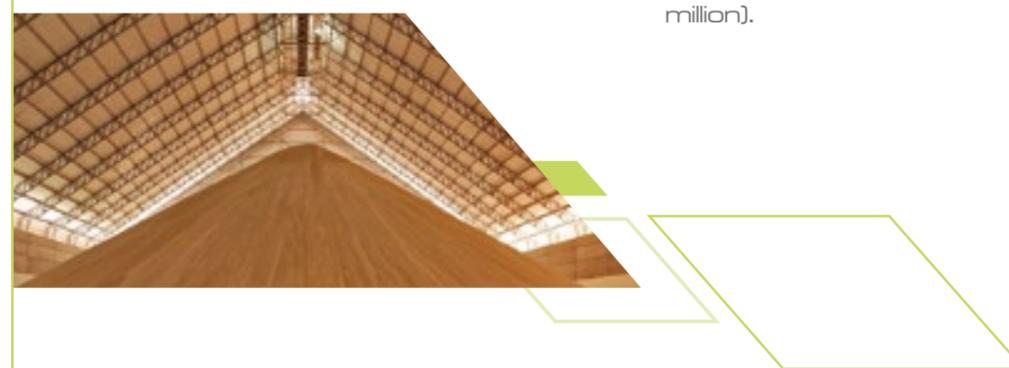
As a result of the increase in production and sales volume, the cost of goods sold (COGS) reached R\$ 971.8 million in the twelve months ending in March 2021. In comparison with net revenue, however, there was a reduction of 5.6% on this item thanks to greater efficiency throughout the operation. Sales, general and administrative expenses totaled R\$97.3 million, 16.9% higher than the R\$83.2 million recorded in the previous harvest, for two main reasons: higher freight costs due to the volume of sugar sold, and administrative expenses at the Canápolis mill, which began operating in 2020. In conclusion, the operating result (or EBIT, which is equal to net revenues minus costs of goods sold and operating expenses) earned by the group increased by 108% compared to the previous year, totaling R\$ 305.9 million (compared to R\$ 147.1 million).

Rating and bank debt

CMAA has its corporate and financial operations ratings done by the S&P agency. In November 2020, the risk agency improved the company's projection, changing its outlook from "negative" to "stable", maintaining the brAA- rating on the Brazilian National Scale.

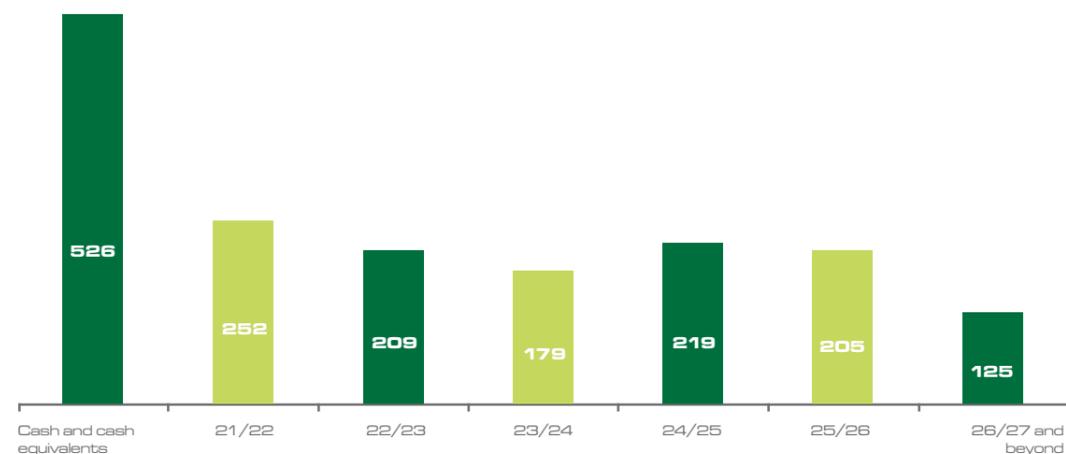
The reason for the change is the expected reduction in the company's leverage, in part thanks to the start of operation of the Canápolis unit. Every year, CMAA raises funds to finance investments in industrial and agricultural areas, as well as working capital needs, including exports, which vary significantly depending on the harvest and stocks.

CMAA's gross debt position has been accompanied by the lengthening of its profile and the reduction of its average cost.



FINANCIAL PERFORMANCE

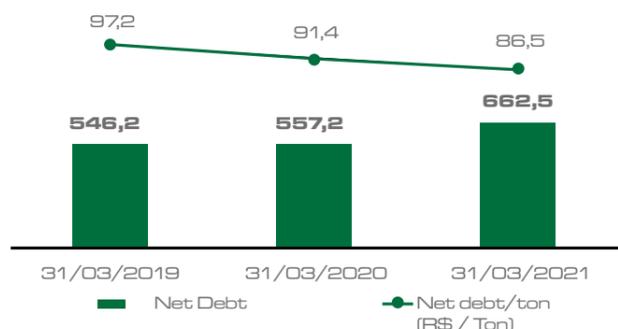
PAYMENT SCHEDULE OF GROSS BANK DEBT IN MILLIONS OF R\$



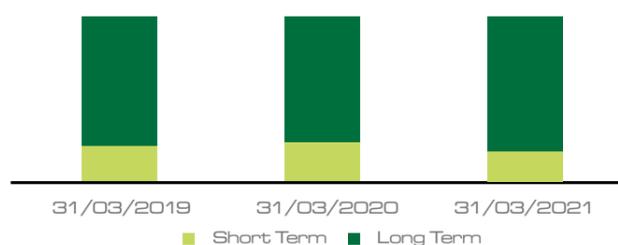
Cash and cash equivalents totaled **R\$ 526.2 million** in March 2021, enough money to amortize 2.1 times the short-term bank debt (in 2020, this amortization capacity was slightly lower, 1.9 times).

Thus, the consolidated net debt totaled R\$ 662.4 million at the end of the harvest (a figure 18.9% higher than the R\$ 557.2 million a year earlier).

NET DEBT / TON OF SUGARCANE IN MILLIONS OF R\$



NET DEBT % SHORT AND LONG TERM



In the 2020/2021 Harvest, we had the following composition of the statement of added value (SAV).

Statement of Added Value values in millions of R\$	2020/2021	2019/2020	Δ%21/20
Revenue	1.489.053	1.073.914	38,7%
Sales of goods, products and services	49.888	18.847	164,7%
Other revenue	1.538.940	1.092.761	40,8%
Inputs purchased from third parties			
Cost of products, goods and services sold	- 383.277	-274.929	39,4%
Materials, energy, third-party services and others	-152.036	-109.875	38,4%
Other	17.952	4.743	278,5%
	553.265	389.547	42,0%
Gross added value	985.675	703.214	40,2%
Depreciation and amortization	- 358.632	- 281.458	27,4%
Net added value generated by the company	627.043	421.756	48,7%
Added value received in transfer			
Equity equivalence result	- 19	- 200	-90,5%
Financial income	228.351	169.050	35,1%
Total added value to distribute	855.375	590.606	44,8%
Personnel	186.105	145.503	27,9%
Direct remuneration	121.014	96.891	24,9%
Benefits	56.268	40.753	38,1%
FGTS	8.823	7.859	12,3%
Remuneration of capital from third parties	388.613	319.996	21,4%
Interest on financial loans	87.975	80.324	9,5%
Exchange variation and expense with derivatives	165.882	144.928	14,5%
Rent	55.492	47.698	16,3%
Other	79.264	47.046	68,5%
Remuneration of equity capital	176.161	57.738	205,1%
Net income for the year	176.161	57.738	205,1%
Value added distributed	855.375	590.606	44,8%

OUR VALUE CHAIN

1. CMAA invested R\$ 290,000 in research for the development of sugarcane varieties in partnership with the Instituto Agronômico de Campinas (IAC) and the Rede Interuniversitária para o Desenvolvimento Sucroenergético (Ridesa.)

2. Farming projects are made based on information provided by unmanned aerial vehicles (UAVs).

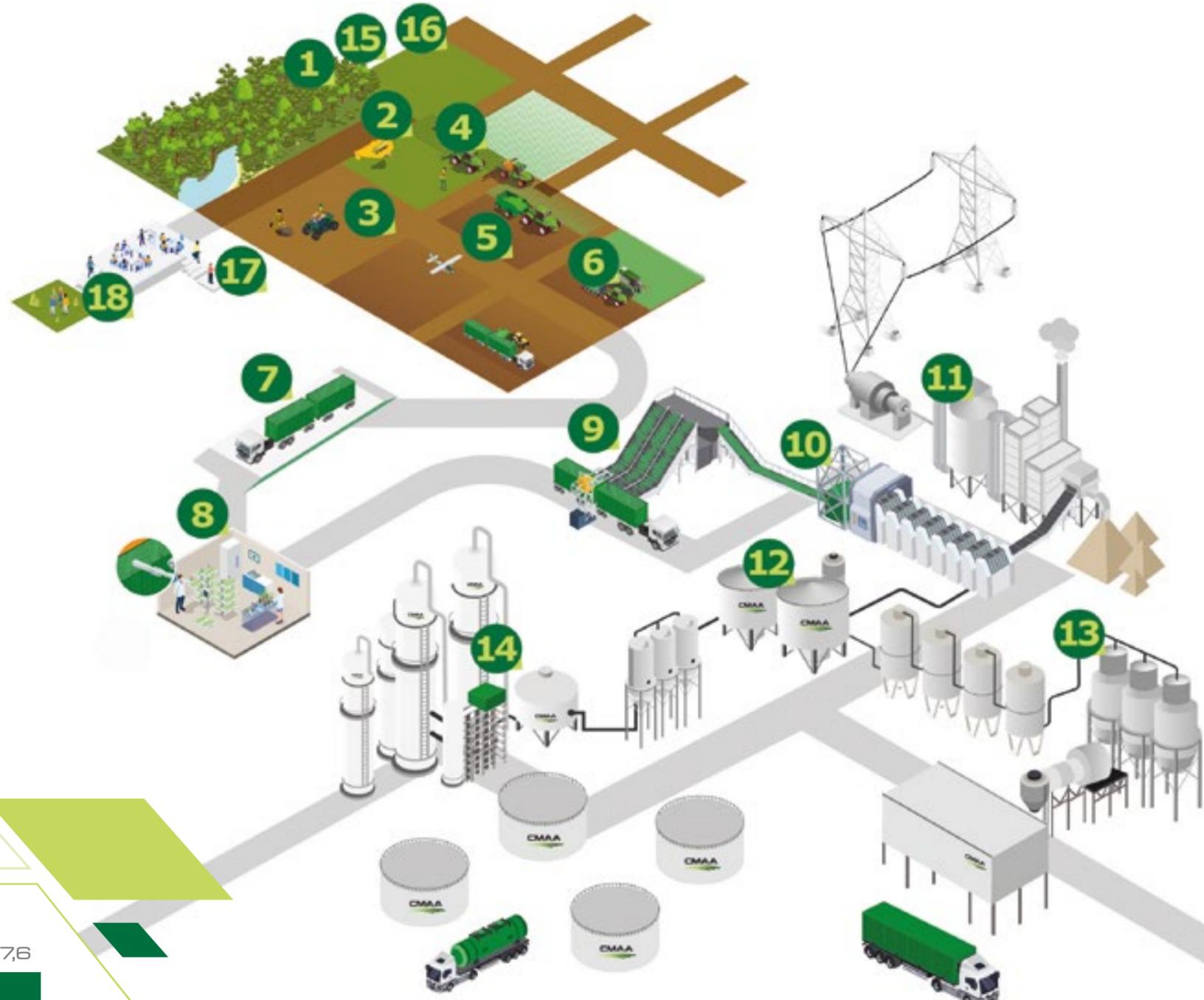
3. Based on the photographic record, the mapping of the incidence of weeds is carried out. In parallel, soil samples are collected to assess the need to apply correctives, such as limestone, gypsum and organic residues (filter cake and vinasse).

4. This technology guarantees precision in planning the mechanized harvest. After planting, new aerial images indicate any failures to guide replanting.

5. In the 2020/2021 Harvest, an investment was made to expand the area by 25 thousand hectares in the three CMAA units, considering own areas and suppliers.

6. CMAA has 100% of its harvest mechanized, reaching 1,000 tons per harvester/day, a figure that is considered a benchmark in the industry.

7. In the 2020/2021 Harvest, CMAA achieved productivity of 97.09, 91.42 and 67.47 tons of sugarcane per hectare (TCH) at the Canápolis, Vale do Tijuco and Vale do Pontal units, respectively.



7. During the harvest period (between April and November), the units process sugarcane 24 hours a day, without interruptions.

8. Trucks transport the harvested sugarcane to the units, where sampling is carried out to analyze the concentration of sugar, vegetable and mineral impurities, among other parameters.

9 and 10. Conveyor belts take the cane to the cutter and then to the shredder, which opens the fibers of the cane. Soon after, the cane is transported for extraction, where two products are obtained: juice and bagasse.

11. The bagasse feeds the boilers, which produce electricity. A part of this electricity goes to industry and the rest is sold to the concessionaire. The energy surplus from CMAA's 2020/2021 Harvest guaranteed the supply of 152 thousand inhabitants for one year.

12. The heated juice goes through the decanting and filtering (clarification) processes and then it is sent to the production line to be transformed into sugar or ethanol.

13. At the sugar factory, the concentration of solids in the juice goes from 13% to 65% after the evaporation process. When boiling, sugar crystals are formed, which are separated from the liquid in centrifuges. The product obtained is VHP Sugar (Very High Polarization).

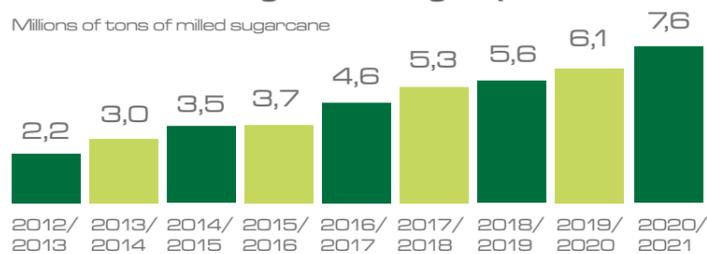
14. The juice from the clarification process and the liquid from the sugar production feed the fermentation, resulting in Anhydrous and Hydrous Ethanol - the difference is in the water content of its composition. Anhydrous Ethanol is mixed with gasoline, as an additive, and can be used in the manufacture of cleaning products, paints and varnishes. Hydrous Ethanol, on the other hand, is used to fuel vehicles powered by ethanol and, through industrial processing, in the production of beverages, cosmetics and pharmaceutical products.

15. 80% of the water is filtered and reused, in a closed circuit model, and the remaining 20% is used for irrigation of the crops.

16. Two important by-products result from industrial processing and are reused in the agricultural process: filter cake and vinasse.

Evolution of milling of CMAA group

Millions of tons of milled sugarcane



PEOPLE MANAGEMENT

Building our history

For CMAA, people represent the success factor in the transformation process and the guarantee of the company's sustainable growth. Therefore, people management has as a guideline the making and development of internal teams in line with the main business objectives.

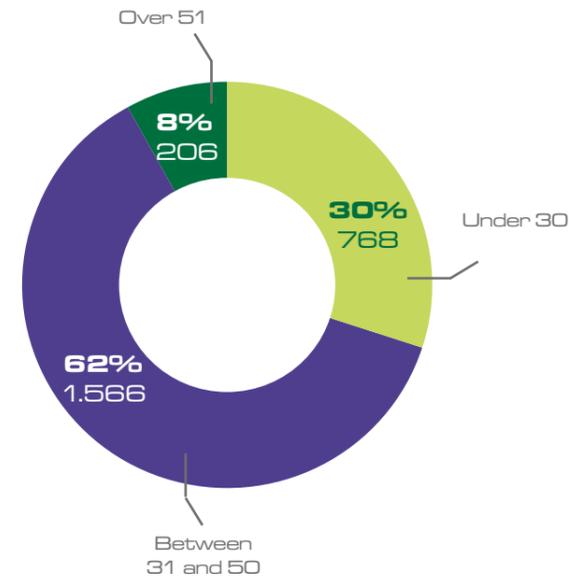
At the beginning of the 2020/2021 Harvest, CMAA had 2,540 employees, hired under the Brazilian employment law regime (CLT) and secured by collective bargaining in its three units. Our team is made up of both young people starting their careers, as well as experienced employees, creating an inclusive and innovative environment.

Benefits

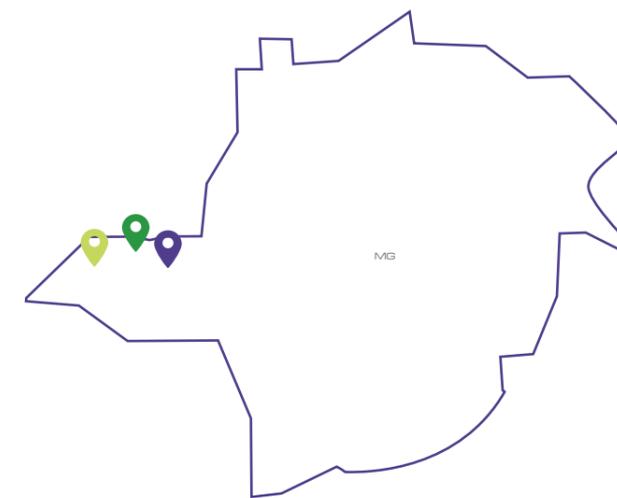
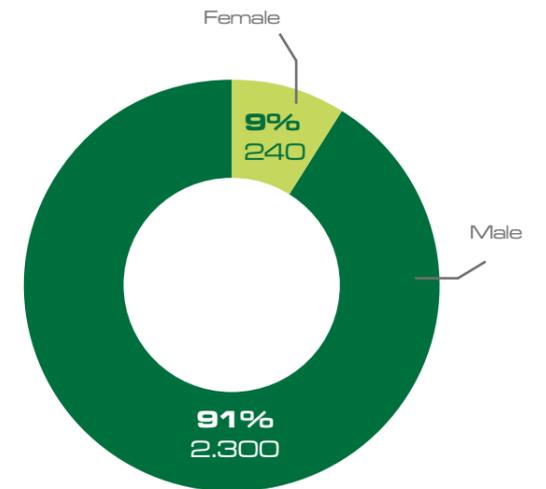
We offer an array of benefits to our employees.

-  100% company-funded life insurance.
-  Health plan 100% funded by the company for employees and with affordable co-payment for dependents.
-  Dental plan.
-  Vaccines and drugs subsidies.
-  Profit Sharing Program.
-  Food vouchers.
-  Subsidy for education and language courses.
-  Chartered transport and transport vouchers.
-  Outpatient clinic with medical office in agro-industrial units.
-  Holidays Groceries Kit.
-  Private Pension Plan.
-  Medical check-ups.

Employees by age group



Employees by gender

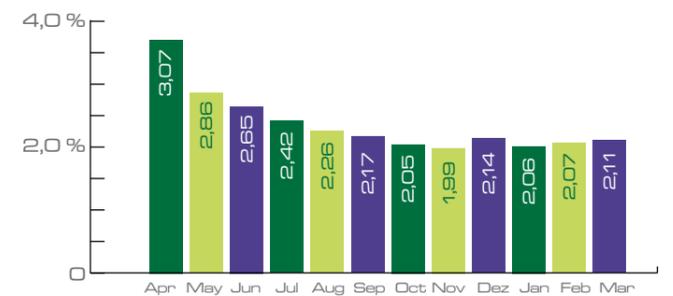


■ LVT
■ LVP
■ UCP

Absenteeism 2020-2021



Turnover



PEOPLE MANAGEMENT

Recruitment and selection

CMAA knows that its employees are responsible for building its history and, also, essential for future achievements. Mutual respect between people and the conviction that each one acts as the owner of the business – characteristics that are regularly highlighted – are what drive the company's growth.

The daily work is guided by excellence and results, backed by professionalism, teamwork and transparency, in addition to the recognition of each employee in their achievements. All job offers from CMAA are posted on the company's website and on social media. However, the R&S process prioritizes recruitment/hiring of candidates from the regions in which the company is located. Recruitment actions are guided by ethical and professional standards, aiming to promote inclusion and diversity. CMAA has an Internal Recruitment Policy, which creates opportunities for professionals who

already work at the company, with the purpose of promotion, retention, satisfaction and motivation of these employees, in addition to developing their professional growth.



PEOPLE MANAGEMENT

Employee development

After a decade of great expansion, there is a need to increase investment in the development of people and processes, with the objective of perpetuating the organizational culture and values, following the best ESG (Environmental, social and corporate governance) market practices.

Thus, some initiatives have been gaining more prominence, such as people development through training and qualification. To make people development a guideline for the company, the Human an

Organizational Development (HOD) area was created, responsible for all training activities and monitoring of the organizational climate.

The greatest challenge for the People Management teams was to maintain the development of employees despite the crisis triggered by the Covid-19 pandemic. One of the solutions found was the investment in a proprietary platform for online training.



This event happened before the Covid-19 pandemic.

PEOPLE MANAGEMENT

Online Training

In the 2020/2021 Harvest, 109 thousand hours of training were carried out – between in person and remote (online) –, representing an investment of more than R\$ 1.1 million. Equipment was purchased and made available to employees for distance learning course, and they now have the option of doing their course at home or at the company.

The tool made it possible to make better use of the time available for training, as it enables prior preparation of teaching material, which is available for online access at any time.

Engaging Your Career

In 2020, the Engaging Your Career Program began, which, in its first edition, pro-

moted the Agricultural Machinery Mechanics Training Course, in partnership with the National Industry Service (Senai).

The group had theoretical and practical classes, held at Senai and at the Vale do Tijuco Unit, respectively.

At the Vale do Tijuco unit, the students were monitored by the HOD team, which carried out assessments and performance analysis of the participants. At the end of the process, five people were hired by the company as general mechanic assistants. For the next harvest, a new edition of the program is planned, this time focused on training women as agricultural machinery operators.

Treino	UVT ¹	UVP ²	UCP ³	CMAA
Total hours (h)	53.561	30.280	25.740	109.581
Average total cost	R\$ 763.244	R\$ 31.490	R\$ 366.795	R\$ 1.161.529
Number of employees	1.473	605	453	2.531
Average hours per employee	36	50	56	47

1 Vale do Tijuco Unit, 2 Vale do Pontal Unit, 3 Canápolis Unit

In the 2020/2021 Harvest, initiatives were also implemented to strengthen the operational teams engagement through recognition programs carried out in the agricultural area and the preparation of similar work in the industrial area.

Agricultural Excellence Program

In the 2019/2020 Harvest, the first agricultural workshop was held, with the theme “Aligning the rules of the game”, to build the operational guidelines for the subsequent harvest. The purpose of the action was to promote collaboration between the agricultural teams, awakening in each group a sense of belonging, motivated by the detailed joint analysis work regarding the results achieved in the 2019/2020 Harvest and by the subsequent targets setting for the 2020/2021 Harvest.

Together, the leaders identified points of improvement that were related to operational performance and acquired greater insight for their decision-making. The initial work proved to be fundamental for the creation of a recognition system with precise technical details, realistic goals with chances being surpassed and training aimed at the operational area. This set of actions was called the Agricultural Excellence Program. Under the agreed recognition

system, all teams that surpassed the initial indicators, in relation to the other teams, would receive symbolic gifts during social gatherings, which included snacks, trophies, medals and the presence of senior leadership. The program provided an evolution in all the pillars analyzed during the competition (Production, Quality and Safety).



Os eventos ocorreram antes da pandemia de Covid-19

PEOPLE MANAGEMENT

Diversity and inclusion

Diversity is one of the great challenges that CMAA looks forward to. In the 2020/2021 Harvest, the company presented projects that consider people in all their ethnic, cultural, social, political and economic complexity. To foster the challenge, the second edition of the Engaging Your Career Program was structured, this time aimed at the female audience. The program consists of exclusive groups focused at training women to be agricultural machinery operators in CMAA's three units.

Below, you can see the composition of the company's workforce by gender:

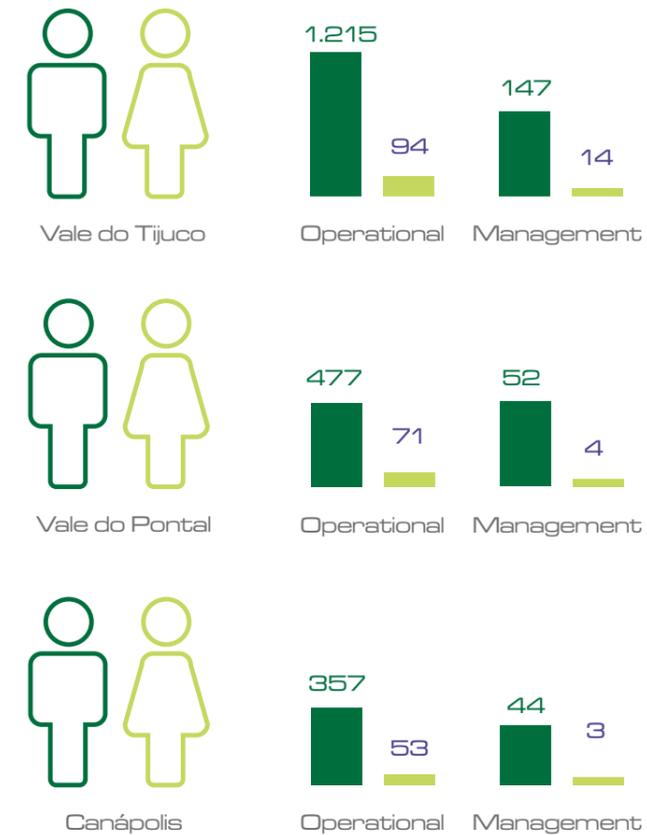


Harvest 2020/2021	Vale do Tijuco (UVT)	Vale do Pontal (UVP)	Canapolis (UCP)	CMAA	Feminino	%
Total number of employees per employment contract (permanent), by gender.	1.366 - Male 107 - Female	529 - Male 76 - Female	397 - Male 56 - Female	2.531	239	10,59

Por gênero:

Vale do Tijuco (UVT)	Vale do Pontal (UVP)	Canapolis (UCP)	CMAA
1.365 - Male (Full-time) 1 - Male (Part-time)	528 - Male (Full-time) 1 - Male (Part-time)	397 - Male (Full-time)	2.292
107 - Female (Full-time)	76 - Female (Full-time)	55 - Female (Full-time) 51 - Female (Part-time)	239

Number of men and women



Total of employees	Female employees	%
2.531	239	10,59

Number of women in leadership
21

CMAA also identifies the ethnic-racial characteristics of its employees through self-declaration, as shown in the table below:

Employees	Ethnic group
142	Asian
759	White
1.525	Mixed
56	Black
49	Didn't declare
2.531	

The inclusion of people with disabilities is another important subject for CMAA. The company established some strategies for attracting and adapting this public to different work environments. The company develops awareness-raising actions for employees to understand the importance of interacting with professionals who have some

type of disability. In the QR Code below, you can access two videos created in support of this initiative.



PEOPLE MANAGEMENT

Focus on Occupational Health and Safety

The CMAA's Occupational Health and Safety (OSH) management system is the combination of OSH processes, procedures and practices adopted, aiming to implement its policies and achieve its objectives to obtain a safe and healthy work environment.

This system identifies hazards, assesses operational risks and establishes mitigating actions to manage and maintain them at acceptable levels, thus ensuring the process of continuous improvement. It is also the basis for decision-making, procedures preparation, development of

training materials, discussion with employees, health and safety dialogue, among other activities.

CMAA created a committee composed of employees from different areas: the Internal Commission for Accidents Prevention, the Internal Commission for Rural Workers Accidents Prevention, and the Occupational Health and Safety at Work, who participate in the preparation, validation, implementation and review of Occupational Health and Safety (OSH) procedures and practices, according to the situations raised by the OSH management system.

Main programs

The company maintains several tools that helps in risk perception development through actions observation and dialogue encouragement between leaders and subordinates, thus contributing to the process of behavioral change in all levels.

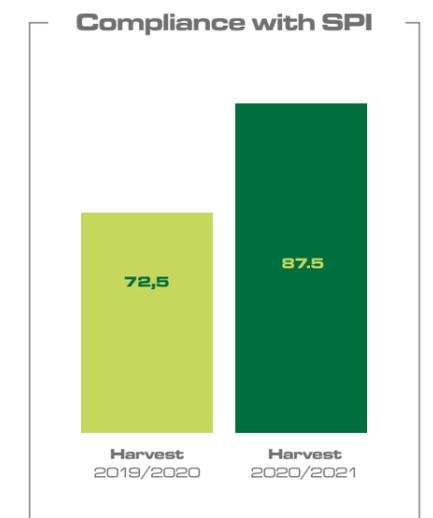
Program management is supported by the use of electronic platforms, developed to record and control OSH actions. In this context, the programs collaborate with the evolution of the safety and health culture within the company. Learn more about each of them next.

Behavioral Safety Program

The Behavioral Safety Program was implemented in December 2020, trained around 300 people in leadership positions and had an investment of around 400 thousand reais. On a daily basis, through preventive approaches and with previously established goals, the company's leaders observes the activities carried out with the objective of increasing the level of risk perception on the part of employees and the leadership itself, strengthening the process of cultural change. The good practices identified are shared among the group's units. As it is a tool for identifying behavioral deviations, it has allowed CMAA to deal with the main deviations pointed out.

Safe Practices Index

The Safe Practices Index (SPI) is a tool that consists of the periodic application of a specific checklist for each operation with health and safety items. The sector's leadership participates directly in the application, together with the OSH area, to ensure compliance with legal requirements, to develop employees risk perception and to include items systemic verification in their routine. The results of this program contribute to controls development, continually seeking to evolve and create an increasingly safe and healthy environment.





PEOPLE MANAGEMENT

Sentinela

In the 2020/2021 Harvest, CMAA implemented the Sentinela Program with the objective of preventing traffic accidents. The program consists in the installation of sensors that record risky situations, such as fatigue, distraction, using a cellphone while driving or smoking, driving dangerously, not wearing a seat belt or not using the turn lights.

The Sentinela acts as an assistant driver, providing an audio and visual alert to the driver in real time. Through video surveillance technology, it is possible to act effectively and immediately and offer the driver an ally on their journey. At the end of the 2020/2021 Harvest, the technology was installed in 200 vehicles at the three units.



SIPAT

The Internal Work Accident Prevention Week for the 2020/2021 Harvest needed to be reinvented and gained an itinerant model. A truck with an audiovisual structure moved between the units areas, taking the event to a limited number of people and associating the theme with the day-to-day

operations. The theme was "Perceive, act and guide. I am an example!", as these actions are fundamental pillars for the creation of a safe and healthy work environment. When approaching the subject, we sought to make people aware of the application of safe behaviors in their routine.



Response to emergencies

CMAA has an emergency brigade of more than 100 employees, who meet periodically for training and simulations. The company promotes preventive fire-fighting measures, such as firebreaks in trails, reserves and permanent protection areas, surface temperature monitoring and cleaning of straw accumulations.

A system called the "fire triangle" monitors items such as temperature, relative humidity and wind speed, especially during the hottest hours of the day, in order to directly contribute to decision-making.



PEOPLE MANAGEMENT

Covid-19 response

The Covid-19 pandemic required changes in companies routines. As a result of the social distancing measures, CMAA needed to carry out a series of adjustments in the work environments, innovating and transforming relationships, which began to demand greater understanding and resilience from employees. During the 2020/2021 Harvest, CMAA's priority was to preserve people's lives. To this end, it took several actions to protect employees and their families. Within this challenging scenario, the company continued its activities to guarantee the market's supply of products that are essential for the lives of many people, such as fuel and electricity.

During this period, CMAA invested around 6 million reais in actions related to the prevention of the disease and the fight against the pandemic. The number of vehicles used to transport employees has increased, promoting more distance by keeping empty seats and establishing a

cleaning routine for the buses and vans used, in addition to periodic cleaning instruction for other vehicles.

In offices and factories, cafeterias were adapted to meet security measures, in accordance with the official guidelines. The company created committees to optimize decisions, minimize impacts and increase the agility in the implementation of actions that were taken based on the new guidelines of the health authorities.

The action plan encompassed issues related to the individuality of each employee. Therefore, the company provided health managers focused on understanding the company's scenario, who analyzed the situations that could trigger outbreaks of the disease and carried out assessments regarding the psychological consequences.



2020/2021 HARVEST COVID	NEGATIVE TESTS	COVID CASES	DEATHS
UVT ¹	483	318	1
UVP ²	158	59	0
UCP ³	207	50	1
CMAA	848	427	2

1 Usina Vale Do Tijuco, 2 Usina Vale do Portal e 3 Usina Canápolis



SOCIAL AND ENVIRONMENTAL RESPONSIBILITY

Social projects management

The top challenge for the coming years is to ensure CMAA's sustainable growth and continue to add value to its stakeholders. Therefore, the key success factor in the current scenario is to develop an agenda based on sustainability, proposing social and environmental initiatives through structured programs and projects. In this context, the company has been working to develop a policy that includes sustainability as a strategy, integrating themes associated with Social Responsibility, Environment and Communication, based on the best ESG market practices. The engagement of all stakeholders in the development of social and environmental themes has become a great opportunity for adherence to CMAA's objectives and its vision for build-

ing the future. Along these lines, guidelines were defined for some initiatives, such as social programs mapping, in partnership with municipal governments, in communities of regions where the CMAA group operates. The focus is to prioritize those whose goal is training and intellectual and social development, mainly of children whose families are inserted in the reality of agribusiness segment.

With this guideline, CMAA created the Sustainability Area, integrating people with knowledge in the areas of Environment, Social Responsibility and Communication. This strategy reinforces the approach to sustainability issues and creates synergy of social and environmental actions through internal and external movements and actions. Another important action planned for the 2021/2022 Harvest is Volunteer Pro-

gram structuring, with the objective of spreading an internal culture of solidarity and inspiring our employees to transform the reality of people who need some kind of support. Volunteers will also work directly in mapped and defined socio-environmental programs, as mentioned before.

Natal Solidário

Natal Solidário ("solidarity Christmas") is the main social program developed internally at CMAA and effectively contributes to internal engagement and the construction of a culture of solidarity. The initiative has been taking place for seven years and aims to engage employees, who sponsor letters for Santa Claus of children from schools close to the CMAA units. Schools are previously mapped to ensure that the scope of the program is within the eligibility criteria, based on the main demands.



SOCIAL AND ENVIRONMENTAL RESPONSIBILITY

Patrulheiro Mirim

Patrulheiro Mirim (“child scout”) is a program developed in the municipality of Ituiutaba (MG). It was originally created thanks to partnerships with institutions such as the Public Ministry and the Military Police, with the purpose of promoting intellectual development of children in socially vulnerable situations. Kids and teenagers engage extracurricular activities in during workshops, with the direct support of the Military Police, and also have social and pedagogical training. The project is supported by the Judiciary, the Guardianship Council and private companies, such as CMAA, which since 2018 has contributed with school supplies for the 60 students selected each school year:



Social initiatives

Additionally, the company provided support for specific initiatives demanded by entities related to social work:

- Associação de Pais e Amigos dos Excepcionais (APAE) no município de Limeira do Oeste (MG)

Since 2018, CMAA has been donating materials and providing support for events in order to raise funds for the association’s activities maintenance.



- Associação de Proteção e Assistência aos Condenados (APAC) no município de Canápolis (MG)

CMAA, through joint efforts with commercial partners, collected financial and material resources for the construction of the association’s building in the municipality. The association is assisted by the Judiciary and works for the social reinsertion of former convicts.

- Organização dos Amigos Solidários à Infância e à Saúde (OASIS) no município de Uberaba (MG)

Organization that welcomes children and young people from 26 cities in Minas Gerais undergoing treatment for cancer and blood diseases at the General Hospital of the Federal University of Triângulo Mineiro (UFTM). Since 2018, CMAA has contributed with donations for the organization’s fundraising events.

Social assistance during the Covid-19 pandemic

With the pandemic scenario and the impacts on society as a whole, CMAA stepped forward and donated more than 130 thousand liters of 70% alcohol to municipalities in Minas Gerais, including 16 city halls, nursing homes, hospitals, universities and public security agencies.

Unemployment was another harmful impact of the pandemic, causing a reduction in household income. In this context, CMAA donated approximately one thousand food baskets to socially vulnerable families in partnership with the city halls of some municipalities in the Triângulo Mineiro region.

CMAA also joined the national movement Unidos pela Vacina (“United for Vaccination”), donating material for vaccination (cold boxes, syringes, needles, aprons, etc.) to some municipalities that were adopted by the company.

SOCIAL AND ENVIRONMENTAL RESPONSIBILITY

Environmental management

A system of Environmental management means planning activities, responsibilities, processes and resources to develop, implement, achieve, critically analyze and maintain environmental policy. This improved the company in several aspects, creating a vast conceptual multiplicity in the context of sustainable development.

The social demand for companies that have good environmental and social practices in their catalog puts pressure on organizations to go beyond a simple compliance with applicable legislation and, therefore, to unfold, to reinvent themselves in a world eager for these mechanisms.

The benefits of these mechanisms range from using less natural resources in the short and long term, with the application of new technologies that are increasingly effective and sustainable, to

the social development of the surrounding communities, which ultimately generates more profits.

For this, the CMAA group, with innovative inspiration, establishes a platform that effectively leverages the marbled concept of the term sustainability, engages in its daily actions and in its business plan, creating a truly sustainable culture, that is, reconciling profit and growth of the company in harmony with the proper management of its resources, thus ensuring the full well-being and safety of its employees.

As a result, it is clear that the perspectives and driving forces that sustain CMAA are this innovative spark, the development, technology, valuing the partners, the employees, the dynamics of group actions, the search for the concept of excellence, going beyond legal compliance, with the primary aim of gaining refined logistical efficiency in its processes and substantially increasing production with-

out compromising the environment and the safety of its select workforce.

As a matter of fact, within what is stated here, the essential and the reference of development were for a long time rooted in the idea of economic growth. However, this concept began to be increasingly questioned due to the fact that, in parallel with the growth of the economy,

society gradually began to live with a socioeconomic and environmental crisis, which is dizzyingly far from anything that could be considered as developed or under development.



SOCIAL AND ENVIRONMENTAL RESPONSIBILITY

Meanwhile, in this obsolete scenario of inaccuracies, of searches for environmentally correct and balanced alternatives, the concept of Sustainable Development emerges as a solution to the problems experienced by society, together with the need to use measurement instruments capable of establishing sustainability indicators as guidelines for a position regarding what is expected of a sustainable environment.

When the CMAA group was faced with the innovations arising from all this systematization, it supported this theme by hosting a series of discussions with its employees on the sustainability topic, aiming, of course, to awaken a more critical view of social agents regarding the environmental issue and the role of productive activities in achieving sustainable goals.

With these premises and based on the broadest and most unrestricted socio-environmental responsibility, which serves as a protagonist for actions implementation, CMAA seeks to guide itself along the path of good environmental practices, counting, for that, with the rigorous Bonsucro certification. Bonsucro is a non-profit global multi-stakeholder association, created with the objective of defining the principles and criteria for a sustainable production chain, highlighting the quality and excellence of sugarcane producing and processing companies in the world.

Furthermore, by joining the RenovaBio program, which is another important indicator of the company's performance regarding this topic, CMAA leverages and defines through the establishment

of annual national decarbonization targets for the fuel sector; in order to encourage production increase and participation of biofuels in the country's energy use for transportation.

In short, for the company, sustainable development is the coherent, plausible and applicable definition of rules that

enable or may contribute to the minimization of occurrences - environmental damage -, bordering on the understanding that natural resources are finite and, therefore, must be preserved for present and future generations, and this reference is the motto of all CMAA members.



SOCIAL AND ENVIRONMENTAL RESPONSIBILITY

Certifications

Bonsucro

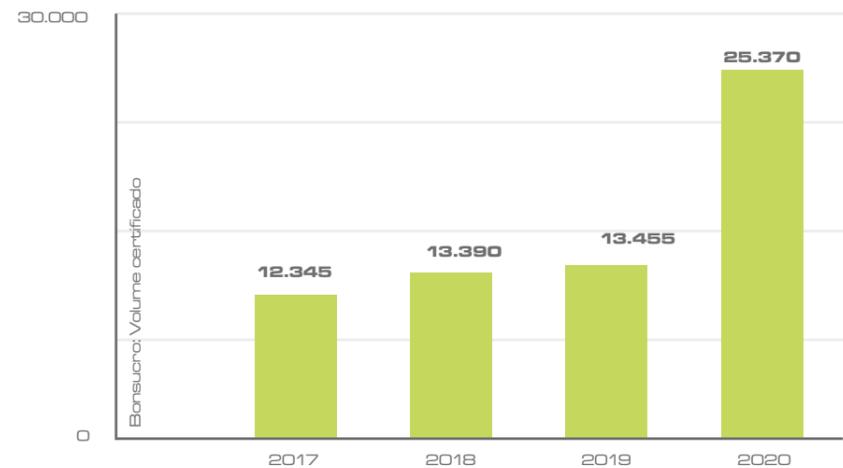
Bonsucro is an international, non-profit, multi-stakeholder organization created in 2008 to promote sustainable sugarcane. Its stated objective is to reduce “the environmental and social impacts of production, recognizing the need for economic feasibility”.

The Vale do Tijuco unit is certified by Bonsucro, which guarantees a sustainability differential. From 2017 to 2020,

there was a significant evolution in certified volume numbers. Vale do Pontal unit is working on implementing the certification, with an external audit scheduled for November 2021.

We have plans to also certify the Canápolis unit in the future, thus ensuring a more sustainable and competitive company in the international market.

**Certification
Bonsucro - UVT**



RenovaBio

RenovaBio is an initiative of the Ministry of Mines and Energy, through the National Agency for Petroleum, Natural Gas and Biofuels (ANP). It was established by the National Biofuels Policy (Law nº 13.576/2017) and its main objectives are:

- 🔹 Reduce greenhouse gas (GHG) emissions to fulfill the commitments of the Paris Agreement, with the counterpart of the emission of decarbonization credits (CBIOs).
- 🔹 Increase the predictability of biofuel supply in the market - a vital initiative to attract new investments.
- 🔹 Expand the production and use of biofuels as an energy source, generating more jobs and income distribution

RenovaBio and its challenges

- Optimize processes and raise efficiency.
- Raise energy co-generation.
- Greater control of production activities, including information from suppliers due to the certification process.
- New dynamics in the market, with CBIOs.

Each CBIO corresponds to 1 ton of CO2 prevented when compared to fossil fuels. CMAA generated 313.5 thousand CBIOs in the 2020/2021 Harvest, that is, it contributed with a reduction of 313.5 thousand tons of CO2.

Another relevant action, completed in September 2020, was the disclosure of the new Environmental Impact Management Plan (EMP) for the Vale do Tijuco unit, updated based on the Production Standard Guide, defined by Bonsucro according to the document available in the website.



The EMP aims to address and propose measures for monitoring, mitigating and offsetting impacts for the following topics:

- Biodiversity
- Ecosystem services
- Soil
- Water
- Air
- Climate change
- Use of agrochemicals
- Use of artificial fertilizers
- Sugarcane burning
- Residue and noise
- Socioeconomic environment



SOCIAL AND ENVIRONMENTAL RESPONSIBILITY

Biodiversity

The commitment to biodiversity is the broadest reflection of the pioneering spirit of a company that works along the sustainability route. It is essential to determine the meaning “biodiversity” to understand the issue. Therefore, biodiversity is defined as the plurality of living beings species that inhabit an environment. In a broader sense, the concept alludes to the variety of species existing on planet Earth.

Due to the intrinsic nature of the activities carried out by the sugarcane industry, it is common knowledge that, in order to achieve production goals and, therefore, obtain the necessary inputs for this production, it is necessary to employ measures that end up intervening in the natural landscape of a given location.

However, it is evident that the procedures related to the methodology of such interventions are approved and authorized by the environmental authorities, diligently following the procedural protocols of conduct and legal practices.

CMAA has as principle the sugarcane planting preferably in anthropized areas, occupied by other agricultural crops and unnatural pastures. This represents, by itself, a control measure to minimize the impacts on local biodiversity, maintaining the vegetative index in certain situations, ensuring the establishment of the appropriate local ecological processes, as well as, in most cases, the genetic flow of fauna and flora.



As a rule, the proper treatment and care for environmental issues are commonplace at the company, especially when it comes to specific protected areas - Legal Reserve and Permanent Preservation Areas - as they represent vulnerable spaces and deserve close attention and caution.

CMAA values the maintenance of these protected spaces, but specifically for the Permanent Preservation Areas - APP's - because they play an important ecological role. They are crucial in terms of protecting and maintaining water resources, conserving the diversity of species - fauna and flora



SOCIAL AND ENVIRONMENTAL RESPONSIBILITY

-, controlling soil erosion and, consequently, silting and water pollution.

In these areas, CMAA implements protection measures in order to speed up the development stage of the existing vegetation fragments and favor a better “traffic” of fauna species from the Cerrado Mineiro. In order to guarantee an effective actions executions, CMAA keeps, in the city of Pirajuba (MG), along with the Regional Environmental Education Center of the municipality, a nursery of Cerrado’s native plants, with an average production of 10,000 seedlings per year:

Part of them is donated to nearby city halls, schools, NGOs, partners, employees

and social projects in neighboring cities.

The project’s primary objective is to use the seedlings to restore anthropized areas and systematize actions to improve environmental quality through the planting of typical regional native species

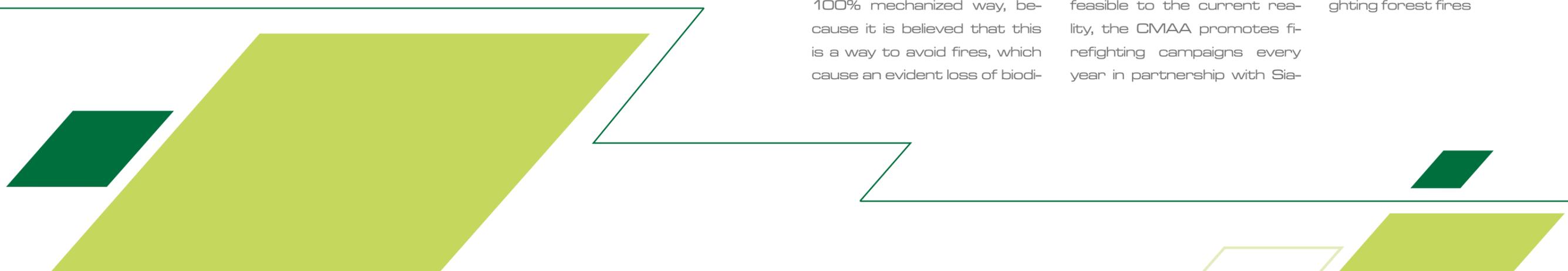


In this context, to meet the environmental prerogatives in sustainability, it was decided to carry out the harvest in a 100% mechanized way, because it is believed that this is a way to avoid fires, which cause an evident loss of biodi-

versity and damage to human health.

Sensitive to this issue and feasible to the current reality, the CMAA promotes fire-fighting campaigns every year in partnership with Sia-

mig. In the 2020/2021 Harvest, the campaign was titled “Once more, the disaster is repeated”, with a focus on fighting forest fires



SOCIAL AND ENVIRONMENTAL RESPONSIBILITY

Fauna monitoring

concepts that guide reports of this nature, fauna monitoring creates local fauna occurrences records, qualifying them, so that a methodology is established to keep and preserve species and fauna groups in the neighboring crops environments.

This monitoring aims to carry out a qualitative data survey on the local fauna, identifying the endangered specimens in the project's influence areas to be monitored, in order to enable the sustainable development of the activity - sugar cane cultivation - in communion with the maintenance of the species present there.

In this regard, wildlife monitoring can be applied to different objectives, such as: measuring possible impacts arising from the installation and/or operation of a given enterprise on local and regional wild-

life, meeting environmental licensing requirements and proposing management and conservation actions of species in protected areas, public and private.

In this context, combined with monitoring, it is possible, meanwhile, to associate the establishment of a preservation factors diagnosis, carrying out a reference catalog of measures that allow for more adequate species maintenance identified in the monitoring in relation to preservation and sustainability.

The diagnosis and fauna monitoring are essential elements for the preservation and maintenance of species.

For this purpose, the reference of secondary and primary data, obtained by methods established in the literature, is used as a base tool, in order to obtain a representative species sample that constitutes the different local and regional fauna groups.

Within the scope of environmental licensing, the fauna monitoring allows not only to establish the systematic as-

essment of different ecological parameters – such as richness, diversity and abundance of species – but also, through its relationship with the activities projects implementation and operations, the identification of possible impacts, with subsequent proposition of mitigating measures, analysis of implemented measures and results monitoring.



The consolidation of a broader socio-environmental responsibility program at CMAA foresees, for the next crop year, the creation of a Sustainability Management area and the replication of the Environmental Management Plan for the other two units.

Indicators	UVT ¹	UVP ²	UCP ³
Number of species	261	303	192
Endangered species	14	17	10

UVT¹ - 1 April/2011 to March/2021
UVP² - 2 November/2012 to March/2021
UCP³ - 3 March/2020 to March 2021

SOCIAL AND ENVIRONMENTAL RESPONSIBILITY

Water management

Water is an indispensable natural resource for human life. Its scarcity is a reason for territorial conflicts, and the tendency is for it to be increasingly disputed. CMAA contributes to water preservation through water management, ensuring conscientious use and efficiency in its processes. Based on the mapping and recording of the volumes of water collected, consumed

and discarded, the company is able to measure the impacts and design strategies to mitigate them.

CMAA constantly invests in research and studies on the subject. In industrial plants, the water is used in a closed circuit, being reused at the end of the process for fertilization of agricultural areas. Another measure is the continuous monitoring of surfacewater quality through

laboratory analyzes that guarantee the quality of surface water in areas of sugarcane production.

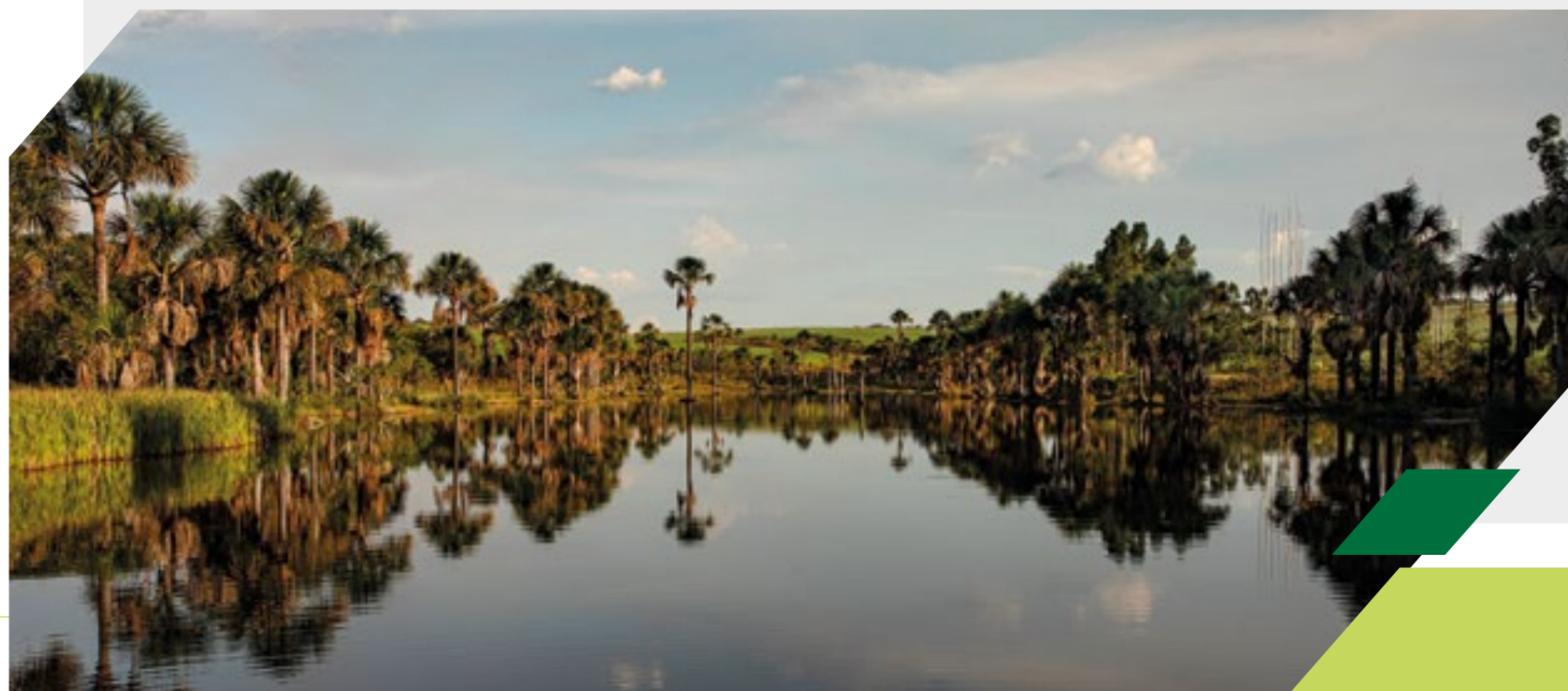
In the 2020/2021 Harvest, surface water consumed by CMAA's plants was above the volumes recorded in previous periods due to the increase in production. In turn, CMAA has been improving the performance levels of its

operations over the years, as shown in the specific water consumption indicator per ton of processed sugarcane (m³/tc).

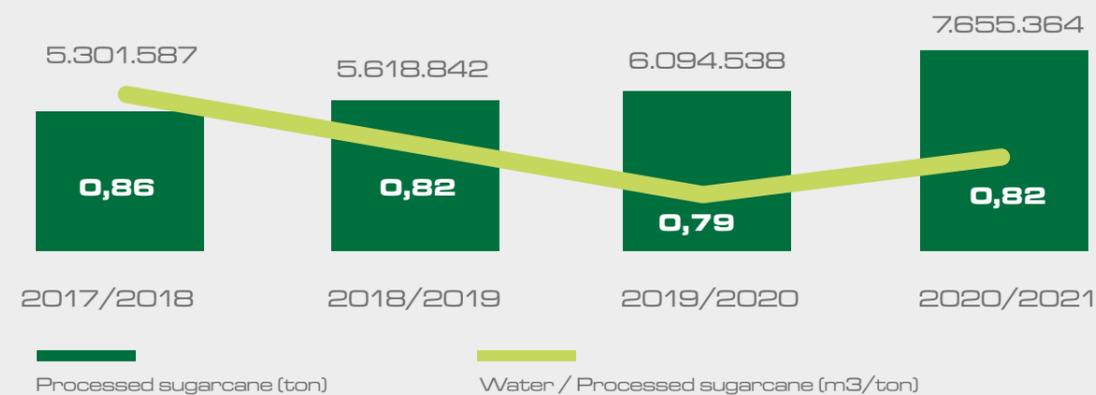
Water reuse

CMAA seeks continuous improvement in its industrial effluent reuse rates through fertigation of sugarcane plantations using wastewater

and vinasse. The application of these effluents in sugarcane areas supplies part of the nutritional needs of the crop, acting as a complement to mineral fertilization and providing increased agricultural productivity.



Water consumption x Processed sugarcane (m³/ton)



SOCIAL AND ENVIRONMENTAL RESPONSIBILITY

Solid waste management

Among the environmental policies, one of the main concerns of CMAA is to deal properly with issues related to solid waste, quantifying, qualifying, categorizing, in detail, everything that is generated in the industrial units, following the Waste Management Plan (WMP).

It is through this system that all actions related to its management are identified and described, contemplating aspects related to non-generation and minimization of waste, segregation, packaging, identification, collection, temporary storage, internal treatment, external storage and transport, disposal and final destination.

These issues are intrinsically related to the theme of envi-

ronmental awareness, which has been showing concern in solving the inconvenience caused by the irregular disposal of numerous wastes, which end up becoming obstacles to the established productive process, presenting themselves as a liability when the correct form and adequate disposal are neglected.

In this context, the synergy in these issues is extremely relevant to environmental problems minimization, demonstrating a new aptitude and a new look at this segment.

The issue of management and the premise of the Management Plan aim to identify existing waste and, consequently, their treatment by the sugarcane mill, in addition to analyzing how the waste-and-by-product management structure is developed.

Among the guidelines to be achieved by the company, preferably and in order of priority, one should:

- Reduce waste and the volume of waste generated.
- Segregate waste by class and type.
- Reuse materials, elements and components that do not require transformations.
- Recycle waste, transforming it into raw material for new products production

The advantages of reducing waste generation are:

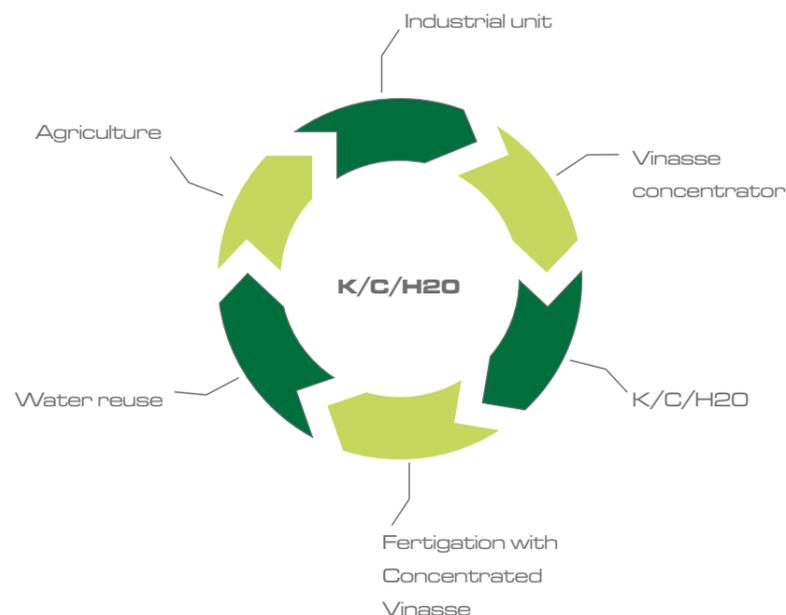
- Decrease in production cost.
- Decreased impact on natural resources and energy.
- Decrease in environmental contamination.

As an example of waste

transformation guidelines, a pilot project for a vinasse concentrator was developed in the 2020-2021 Harvest, by the Vale do Tijuco unit, in partnership with a company specializing in phyto-derived effluents treatment, which, in the first year, guaranteed significant environmental gains by reducing mineral fertilization (potassium), water uptake from the Tijuco River; consumption of products to treat water; the use of fossil fuels to transport stillage and GHG emissions.



SOCIAL AND ENVIRONMENTAL RESPONSIBILITY



Currently, 30% of CMAA's crop area is fertilized with the conventional application of vinasse. With the development of the concentrator project, there will be gains not only for the environment but also for the safety of employees. This will contribute to the company becoming self-sustainable in potassium nutritional demand for sugarcane development.

Specifically at the Vale do Po ntal unit, in addition to the conventional application of vinasse and wastewater by spraying, there is a localized vinasse application front, covering areas that were previously rainfed at a volume of 5 thousand ha/year, meeting the nutritional needs of the plants and assisting in their budding.

REUSE OF VINASSE	Total vinasse production CMAA (M3)	(há) Irrigated with vinasse	Tons of chemical fertilizer replaced by vinasse
CMAA - 2017 HARVEST	2.861.006,00	17.561	3.512
CMAA - 2018 HARVEST	5.449.165,00	16.176	3.235
CMAA - 2019 HARVEST	3.437.787,00	16.898	3.380
CMAA - 2020 HARVEST	3.355.769,00	29.285	5.857

In order to simplify the materialized rules in waste management, it is important that the implemented concept is well administrated by the managers of each segment that constitute the industrial unit, resulting in a common commitment of all to achieve the desired goals, that is, the reconciliation of the proper final disposal with a reduction in operating cost.

To this end, it is necessary to implement methods for production process management, aiming, in this way, to reach satisfactory rates through the reduction, of solid residues generation and the correct understanding and management of them in the production. The effective management of the industrial unit is, therefore, an admis-

sibility assumption, based on ideas of functionality that are extended to all agents who are directly or indirectly involved in production, creating a methodology for the development, storage and disposal of generated waste.



SOCIAL AND ENVIRONMENTAL RESPONSIBILITY

Generation and final disposal of waste

- Filter cake, boiler ash and sediment: soil fertilization.
- Vinasse: fertilizer in sugarcane cultivation.
- Sugarcane bagasse: electricity production.
- Paper, cardboard, plastic and tires: recycling.
- Class 1 waste: industrial landfill.
- Electronic scrap: recycling/industrial landfill.
- Automotive batteries: reverse logistics
- Small batteries: encapsulation and industrial landfill.
- Batteries: recycling.
- Lamps: decontamination treatment.
- Agricultural pesticide packaging: reverse logistics/recycling.
- Medical waste: incineration.
- Ferrous scrap: sale/recycling.

Cake and soot

Filter cake is a residue from the production of sugarcane juice. Impurities resulting from bagasse grinding are extracted in a vacuum filtration process (rotating filter) in the broth treatment stage. The chemical composition of filter cake varies, but it is rich in phosphorus, in addition to being a source of calcium, magnesium, sulfur and other

micronutrients. Once dry, this material is mixed with boiler ash and other earthy materials to return to the crop as a way to partially recover soil nutrients. This practice is considered beneficial from an environmental point of view, as it reduces the amount of chemical fertilizers in the crop.



Generation of Hazardous Waste (class I)

Waste Generation Class I / t processed sugarcane			
Unit	Milling 2020 Harvest (t)	Waste generation (kg)	Waste generation class I (kg)/ kg/t
UVT ¹	4.924.164,71	268.660	0,054559507
UVP ²	1.805.045,49	138.850	0,076923269
UCP ²	831.093,80	68.804	0,082787286
Total CMAA	7.560.304,00	476.314	0,063

SOCIAL AND ENVIRONMENTAL RESPONSIBILITY

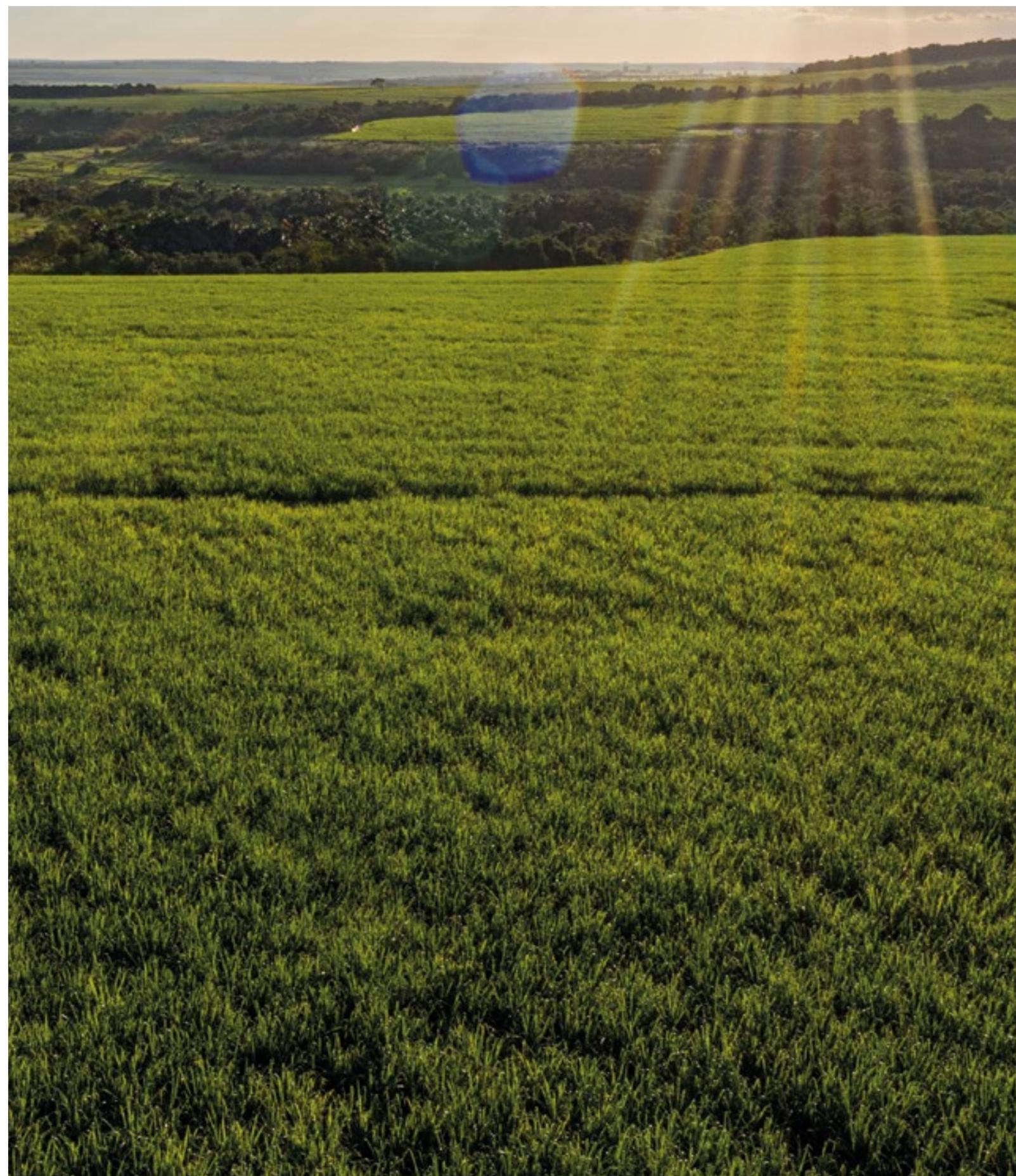
Considering the current global situation, the generation of waste by industries is growing all over the world. However, it requires management strategies that integrate issues of environmental sustainability in which the environment is now considered the primary objective of production processes.

It is necessary to improve the sugar-energy industry as a way of creating, producing, valuing and marketing its products, as well as handling solid waste and rejects. This concept in question is crucial for the good development of business and society, since it is not possible to progress in a deteriorated environment,

which is the basic premise and primary scope of sustainability.

It is also evident that CMAA, aiming to emerge in this sense, is starting to make investments in eco-innovation, which is shown as an alternative for the solidification of sustainability in organizations, as it seeks to innovate processes, products and management.

In addition, it significantly contributes to operational efficiency and reduction of production costs, as well as to the improvement of the company's image to its stakeholders.





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