

Bracell

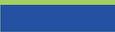
Sustainability Report



Bracell



Bracell
Sustainability Report 2019



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Message from the board

GRI 102-14, 102-15

At Bracell, we are committed to promoting sustainable operations.

We adopt responsible production principles that positively impact the environment. We actively maintain an open dialogue with our stakeholders to understand their concerns, demands and good practices. We strive to leave a positive legacy for the communities surrounding our operations by recognizing their needs, culture, values, and activities. We seek to translate all of this into our actions described on the pages of Bracell's 2019 Sustainability Report, which is the ninth report in our 16-year history.

2019 was a milestone year for our company. During this period, we consolidated our operations in Brazil under the unified brand known as "Bracell." By 2021, we aim to become the world's largest producer of dissolving pulp. This goal can only be achieved by consolidating our industrial and forestry units in the two states in which we directly operate – Bahia and São Paulo.

A pivotal next step in our growth journey is Project Star. Announced in 2018, Project Star started to become a reality in 2019. It will expand the production capacity at the Lençóis Paulista mill through R\$ 8 billion in investments (approximately USD 1.5 billion¹), which represents one of the largest single private investments in the state of São Paulo in the last two decades. Once completed, the expanded Bracell operations will deliver 2 million tons of cellulose to the global market. In addition to creating jobs and career opportunities for thousands of people in Brazil, we will continue to strive to set the highest standards for sustainable use of renewable resources.

¹ Exchange rate considered the following: R\$ 5.17 for each USD 1.00 (Brazilian Real to US Dollar).

Project Star incorporates the latest in green technologies. It is a pioneering project in Brazil, adopting the most advanced concepts of environmental control and sustainability, with low water consumption, low gas emissions, and minimum use of fossil fuels with total reuse of the biomass generated in the plant. In addition, all of the wood consumed will continually be sourced from sustainable plantations that do not contribute to deforestation. The water used in the mill will return to the Tietê River after effluent treatment. The new plant will also be self-sufficient in energy use by generating electricity obtained from steam produced mainly from the recovery boiler.

Part of the Project Star budget will be allocated to community and social investments to improve health and public security infrastructure in our operations surroundings in São Paulo. The company will also offer training and qualification programs for the local

workforce and suppliers to meet the needs of the new plant. We'll also continue creating jobs in the region. It's estimated that the expansion will ultimately create more than 20,000 employment opportunities over the length of the project, including 11,000 during the peak of the construction phase. Upon completion, the new operation will require the hiring of 6,500 direct and outsourced professionals, permanently, in industrial, forestry, and logistics activities.

These new employees will join Bracell's existing 7,217 employees (direct and outsourced) who are recognized in the industry for their commitment, dedication, and excellence, and to whom we seek to provide the best working conditions and development opportunities. We provided more than 102,561 training hours for our staff. A highlight in this period was the consolidation of our Bracell Leadership University that provides four structured programs with plans for two additional programs in 2020. The range of commitments we provide to our employees are designed to ensure our staff are fully trained and ultimately proud to work together as a unified team at Bracell. To accomplish this, we are guided by an ethical and responsible Vision which is to create value for the community, the country, the climate, the customer, and only then it will create value for the company. To ensure we deliver on these commitments, we remain fully committed to investing in research, innovation, and quality in all our forestry and industrial operations.

Bracell carries out its operations with respect for the environment: of the company's forest base, more than 30% of the areas were destined for environmental preservation (native vegetation, legal reserve, and permanent conservation). By prudently cultivating eucalyptus, we positively contribute to nature's

After Project Star conclusion, in 2021, 6,650 new professionals, direct employees and third parties, will be permanently hired.



resources. Our approach to renewable and sustainable plantation development allows degraded areas to recover, captures carbon, contributes to the area's water resource supply, and preserves the natural habitat for native fauna and flora. The cultivation also benefits social progress, as those planted forests are an excellent economic alternative for people and an incentive to avoid rural exodus. We reinforced and expanded our partnership programs with farmers, and we taught them our eucalyptus expertise.

We also proudly own 1,377.33 hectares² of our Lontra Reserve (PNHR), which holds the title of Advanced Post of the Atlantic Forest

² One hectare (ha) is the same as 10,000 square metres.

Biosphere Reserve (AFBR), the only such reserve belonging to a private company in Bahia.

Another fundamental pillar at Bracell is the promotion of social development. Our goal is investing in projects related to Education, Empowerment, and Enhancement. In 2019, we planned a series of initiatives for the next year without putting aside those already-structured programs, that over the year benefited more than 145,000 people. One of the highlights was the Naturopathy course offered as a university extension program. This course is an offshoot of Farmácia Verde (Green Pharmacy), which has trained residents of Bahia quilombola communities to study and apply phytotherapy to the production of natural medicines since 2017.

Internally, we have implemented changes to improve our performance in sustainable development. To reinforce and provide more visibility to the topic, we restructured our Corporate Affairs, Communication and Sustainability division, strengthened our [Sustainability Policy](#), and created the first Committee in the company dedicated to ensuring the Sustainability Policy carries through on its commitments. We also took the first steps towards a long-term sustainability strategy to be completed by the end of 2020.

Finally, I would like to thank all Bracell employees, customers, suppliers, and partners. Thanks to your contributions, we are building a success story today, and we envisage a future with new achievements.

Please enjoy reading Bracell's 2019 Sustainability Report.

Per Lindblom

Executive Vice President, Bracell

About the report



Publication overview

GRI 102-50, 102-51, 102-54

Bracell's Sustainability Report has been published since 2010, and the previous edition was released in February 2020 and covered the year 2018. This report covers 2019 and follows the GRI (Global Reporting Initiative), whose guidelines were adopted as 'essential' in the agreement option in the same year.

This document reflects the company's commitment to transparency and responsibility to its business and stakeholders. It comprises 77 economic, social, environmental, and management indicators that demonstrate both the company's current challenges as well as its achievements. Publication of these indicators provides an essential tool for monitoring our efforts and progress in addressing the various challenges in different areas.

As mentioned, this report compiles updated information for all Bracell's units, within the period between January 1 and December 31, 2019. The information focuses primarily on topics defined as material during the materiality assessment conducted with staff and strategic stakeholders (read more on page 14).

The information presented in this report was certified by SGS during an independent audit carried out in May – July of 2020.

CONTACT GRI 102-53

For any questions or requests for additional information, please contact us at

faleconosco@bracell.com

Materiality Matrix

GRI 102-44, 102-46, 102-47, 103-1

The topics covered in this report were defined by building and updating Bracell's materiality matrix that began in 2016 with the consultation of the company's strategic audiences in Bahia. The objective was to identify what for them were priority issues for business sustainability. At the time, 420 people participated in the consultation, with 324 employees and 96 representatives from the 31 municipalities where the company operates. External stakeholders

include the government, NGOs, associations, unions, sector entities, farmers of the Forestry Producer Program, service suppliers, the press, and other audiences (GRI 102-40, 102-42).

The consultation was conducted online and via face-to-face interviews during field visits. The participants expressed their opinions on the potential impacts, risks, and opportunities related to the company's activities, indicating the relevance of different business sustainability topics. The basis for this analysis was the list of topics addressed by GRI (GRI 102-43).



In 2018, Bracell Bahia hired an external consultancy to review its [Sustainability Policy](#) through stakeholder consultation and engagement (GRI 102-43). The general public, suppliers, NGOs, associations, companies in the region, council representatives and forums, municipality and state public authorities, and civil society participated. Based on their answers, the materiality matrix was revised (GRI 102-40, 102-42), and the Bahia Sustainability Committee was created (learn more on page 61).

In 2019, Bracell São Paulo hired an external consultant to conduct a participatory socio-economic diagnosis in 16 relevant municipalities for the Project Star (details on page 108). Interviews were carried out with government representatives and members of civil society. The objective was to generate a baseline for several indicators related

to social development, education, health, infrastructure, and economic aspects, to support the company's decision-making on engagements with cities and communities. The results of this initiative also contributed to update the company's materiality matrix, with indicators on health, safety, and local communities (GRI 102-49).

The following are the topics considered by Bracell's stakeholders to be most material to its business. Along with the chapters, the explanation of why the topic is considered material may be found. (GRI 103-1).

Through stakeholder consultations, Bracell's materiality matrix was updated in 2019.

DIMENSION/ ASPECTS	MATERIAL TOPICS	WHERE IMPACTS TAKE PLACE*	BRACELL'S INVOLVMENT WITH THE IMPACTS**	GRI INDICATORS CORRESPONDING TO THE TOPIC IN THIS REPORT
Social and labor	Occupational Health and Safety	Inside and outside	Causes / contributes, and influences through commercial relations	403-1, 403-2, 403-3, 403-04, 403-5, 403-6, 403-7, 403-8, 403-09, 403-10
	Job creation and people development	Inside and outside	Causes / contributes, and influences through commercial relations	102-7, 102-8, 404-01, 413-01
	Equal pay for men and women	Inside	Causes / contributes, and influences through commercial relations	202-01, 202-02, 401-02
	Supplier assessment based on labor practices	Outside	Causes / contributes, and influences through commercial relations	412-03, 414-01
Human rights	Prohibition of child or slave labor	Inside and outside	Causes / contributes, and influences through commercial relations	102-16, 408-01, 412-02
	Diversity, equal opportunities and non-discrimination	Inside and outside	Causes / contributes, and influences through commercial relations	102-16, 404-03, 405-01, 406-01, 412-02
	Respect for human rights	Inside and outside	Causes / contributes, and influences through commercial relations	410-01, 412-01, 412-02, 412-03
	Complaints about human rights impacts	Inside and outside	Causes / contributes, and influences through commercial relations	102-16, 412-01
	Freedom of association	Inside and outside	Causes / contributes, and influences through commercial relations	102-41, 407-01
	Supplier assessment based on human rights	Inside and outside	Causes / contributes, and influences through commercial relations	412-03, 414-01
	No discrimination	Inside and outside	Causes / contributes, and influences through commercial relations	102-16, 404-03, 405-01, 406-01, 412-02
Governance	Ethics and compliance with laws and regulations	Inside and outside	Causes / contributes, and influences through commercial relations	102-16, 205-02, 205-03, 206-01
Economic	Good economic performance and company presence in the market	Inside and outside	Causes / contributes, and influences through commercial relations	102-7
	Generation of indirect economic impacts	Inside and outside	Causes / contributes, and influences through commercial relations	203-01, 203-02

* 'inside', 'outside' or 'inside and outside' the organization

** whether the organization causes or contributes to the impacts or has a connection to them through any relation

DIMENSION/ ASPECTS	MATERIAL TOPICS	WHERE IMPACTS TAKE PLACE*	BRACELL'S INVOLVMENT WITH THE IMPACTS**	GRI INDICATORS CORRESPONDING TO THE TOPIC IN THIS REPORT
Environmental	Water withdrawal	Inside and outside	Causes / contributes, and influences through commercial relations	303-03, 303-04
	Effluent and waste management	Inside and outside	Causes / contributes, and influences through commercial relations	306-02, 306-04
	Biodiversity, environmental protection and management of environmental impacts	Inside and outside	Causes / contributes, and influences through commercial relations	304-04, 305-01
	Control of greenhouse gas emissions	Inside and outside	Causes / contributes, and influences through commercial relations	305-01, 305-02, 305-3, 305-04
	Reuse of materials to be discarded	Inside and outside	Causes / contributes	306-02
	Energy consumption	Inside and outside	Causes / contributes, and influences through commercial relations	302-01, 302-04
	Type of materials used	Inside and outside	Causes / contributes, and influences through commercial relations	301-02
Society and customers	Compliance with laws and regulations	Inside and outside	Causes / contributes, and influences through commercial relations	307-01, 416-02, 417-02, 419-01
	Fighting corruption	Inside and outside	Causes / contributes, and influences through commercial relations	205-02, 205-03
	Local Communities	Outside	Causes / contributes	413-01, 413-2
	Customer Health and Safety	Outside	Causes / contributes	416-01, 416-02
	Supplier assessment based on social impacts	Inside and outside	Causes / contributes, and influences through commercial relations	412-03, 414-01
	Complaints about impacts on society	Outside	Causes / contributes, and influences through commercial relations	416-02, 417-02, 419-01
	Unfair competition	Outside	Causes / contributes, and influences through commercial relations	206-01

* 'inside', 'outside' or 'inside and outside' the organization

** whether the organization causes or contributes to the impacts or has a connection to them through any relation



ASSURANCE STATEMENT

STATEMENT BY SGS ICS CERTIFICADORA LTDA. (SGS) REGARDING THE SUSTAINABILITY ACTIVITIES PROVIDED IN “SUSTAINABILITY REPORT 2019” GIVEN TO BRACELL.

NATURE AND SCOPE OF ASSURANCE

The SGS was hired by BRACELL. to carry out the third-party assurance of their Sustainability Report 2019. The assurance scope, based on assurance methodology of sustainability reports of SGS, comprises the disclosure verification under GRI standards in 2019.

The information provided in “SUSTAINABILITY REPORT 2019” and its presentation is a sole responsibility of BRACELL. management structure. The SGS is not involved in the preparation of any material, including the in the said report, such as risk analysis, materiality tests and other critical issues that may affect the BRACELL business. We are liable for giving our opinion of the GRI disclosures and their texting, data, charts and statement within the assurance scope in order to keep the BRACELL stakeholders informed.

The SGS Group has developed a set of assurance protocols for Sustainability Communication based on the best practices provided in GRI Sustainability Reporting Standards and the assurance standard - ISAE3000. Such protocols offer different assurance levels depending on context and capacity of organization, in this case BRACELL.

This report was assured considering our protocols to assess the content authenticity and its alignment with the requirements of GRI Sustainability Reporting Standards, (Universal Standards 101, 102 and 103) and the requirements of Topic-specific Standards (GRI 200, GRI 300 and GRI 400) according to the material issues identified by BRACELL. through our process detailed herein. Based on this context, the “SUSTAINABILITY REPORT 2019” is considered as “Core option”.

The assurance process comprised (i) the disclosure review, information and data provided in sustainability draft (ii) interviews with strategic employees, both to understand the report data and to understand the management process connected with the material issues and (iii) desktop review of the documents forwarded by BRACELL to SGS.

The team of SGS and BRACELL, following the recommendations of the World Health Organization and respecting the quarantine period due to the Covid-19 pandemic, conducted the assurance process remotely

IMPARTIALITY AND COMPETENCE STATEMENT

The SGS Group is global lead in inspection, analysis and verifications services, operating in more than 140 countries and rendering services that includes management system certification, audits and trainings on quality, environmental, social and ethic segments, sustainability assurance reports and greenhouse gases verification. The SGS attests your independence against BRACELL, stating that is exempt from interest conflict with the organization, their subsidiary and stakeholders.

The assurance team was composed according to members' expertise, experience and competence for this activity, the team is composed of an Auditor Lead on Assurance of Sustainability Report, a Lead auditor on Socioenvironmental programs, a Lead Assessor of Greenhouse Gases (GHG).

ASSURANCE OPINION

A broad assurance was ordered, and the work performed was sufficient and adequate for a solid assurance. Regarding the verification performed on methodology, process and data provided by BRACELL, we attest the information and data provided on disclosures of “SUSTAINABILITY REPORT 2019” are reliable and a true and accurate representation of the sustainability activities performed by BRACELL in reference year 2019. The assurance team thinks the report can be used by company's stakeholders as part of their processes of company evaluation. The organization selected the Core Option, which meets their needs.

In our opinion, based on what was found in company units and on documents provided by BRACELL, the report content meets fully the GRI standard requirements.



ASSURANCE STATEMENT

RECOMMENDATIONS, FINDINGS AND CONCLUSIONS OF ASSURANCE

The disclosures of BRACELL Report, "SUSTAINABILITY REPORT 2019", is aligned with GRI Sustainability Reporting Standards, (Universal Standards 101, 102 and 103) and with the requirements of Topic-specific Standards (GRI 200, GRI 300 and GRI 400), Core Option. It is important to highlight the subject matters and its limits were dully set in accordance with the Reporting Principles and indicated over the report and/or reference list.

We recognized BRACELL's commitment and efforts in releasing the Sustainability Report in accordance with the GRI Sustainability Reporting Standards, (Universal Standards 101, 102 and 103) and with the requirements of the Topic-specific Standards (GRI 200, GRI 300 and GRI 400), and to conduct the external assurance of the Sustainability Report for the first time.

As for the contribution to the improvement in the preparation of future sustainability report and greater efficiency in the assurance process, we recommend BRACELL to

1. Disclose the objectives and goals of all material topics. The report may become a major source of sustainability information for all stakeholders and support them in making decisions and raising new concerns.
2. Develop better internal dissemination and use of lessons learned from the new materiality process to mature points of contact with areas responding to the disclosures. This practice will allow an increasingly complete, accurate and transparent reporting.
3. For the reporting context, continue searching for a summarized report, without poor content. Try to highlight the important gains of the sustainability area that consolidate itself against the management and strategy every year

Finally, SGS congratulates BRACELL for the initiative of carrying out the assurance of their report, for the historical commitment to sustainability and hopes that the significant advances in the issue that the company has been achieving in recent years will continue.

August 28th, 2020

Executed by and on behalf of SGS

A handwritten signature in blue ink, appearing to read 'Fabian Peres Gonçalves'.

Fabian Peres Gonçalves
Business Manager - Sustainability

A handwritten signature in blue ink, appearing to read 'Caio César Ferreira de Faria'.

Caio César Ferreira de Faria
Lead Auditor for Sustainibility Report

Bracell



Bracell Company profile

GRI 102-1, 102-2, 102-3, 102-4, 102-5, 102-6, 102-7, 102-10, 304-1

Bracell is the largest Latin American producer of dissolving pulp and specialty cellulose, and one of the largest in the world with operations based on sustainable farming and operating state-of-the-art mills. It continuously invests in technology and research to offer high-quality products, delivers on time and at competitive prices, always respecting the environment and communities in all stages of its activities.

It is one of the business groups of Singapore-based Royal Golden Eagle (RGE). It operates industrial units in Camaçari (BA) and Lençóis Paulista (SP), seedling nurseries in Entre Rios and Inhambupe (BA), and also in Lençóis Paulista and Borebi (SP), an

office of Foresty Technology in Inhambupe (BA), and offices of its forestry unit in Alagoinhas (BA) and in São Paulo (city). In total, it employs 3,120 employees, in addition to 4,097 outsourced workers.

Brazilian operations started in 2003, with the acquisition of BSC (Bahia Specialty Cellulose) and Copener Florestal, both in Bahia. In August 2018, the company's operations expanded with the acquisition of Lwarcel Celulose, located in Lençóis Paulista in the state of São Paulo.

The current installed capacity allows the production of 750,000 tons of pulp per year. In 2019 the company officially announced an investment of R\$ 8 billion for the expansion of its operations in the state of São Paulo through a new flexible line designed to primarily produce dissolving pulp. From 2021, the company will be the largest producer of dissolving pulp in the world, with a capacity of 2 million tons/year generated by the combined industrial operations in Lençóis Paulista (SP) and Camaçari (BA).

PRODUCTIVE CAPACITY

Bracell Bahia

Line 1 - 115,000 tons / year of rayon-grade dissolving pulp

Line 2 - 385,000 tons / year of rayon-grade and specialty-grade dissolving pulp

Bracell São Paulo

Line 1 - 250,000 tons / year of bleached eucalyptus kraft pulp

Reforestation eucalyptus wood is the raw material used by the company. More than 30% of Bracell's managed areas were areas of environmental preservation (areas of native vegetation, legal reserve, and permanent conservation). The company's eucalyptus planting are strategically located in Bahia, covering 31 municipalities in the North Coast and Agreste regions of the state. In the mid-western region of São Paulo state they are in 72 towns. It also operates through forestry partnerships with local farmers - learn more on page 70.

Bracell's products are traded in Brazil and globally, especially to customers in the Americas, Asia, and Europe, where the company has sales, marketing, and customer support services.

BRACELL'S PRODUCTION IN 2019: 713,962 TONS OF CELLULOSE

Bracell Bahia

454,576 tons of cellulose

Bracell São Paulo

259,386 tons of cellulose

**The raw material
used by Bracell comes
from reforestation
eucalyptus wood.**



REBRANDING GRI 102-10, 103|202

In 2019, three companies – Bahia Specialty Cellulose (BSC) in Camaçari and Copener in Alagoinhas, both in Bahia (BA), and Lwarcel Celulose, in Lençóis Paulista, São Paulo (SP), began operating under the unified Bracell brand. The change was announced with the start of Project Star. Bracell refreshed its brand logo to symbolize the new phase and to demonstrate commitment to the industry and the country. The formerly lower-case ‘b’ became a capital letter ‘B’ representing the company’s pride in operating and making history in Brazil, and its ambition to become the largest dissolving pulp producer in the world.

More than the new brand consolidation, the process represented the challenge of integrating, in record time, two companies, and approaching cultural and geographical differences, strengthening ties with employees, the community and the market. A multi-audience coordinated campaign named ‘Somos Bracell’ (We are Bracell) was launched with the aim to unite the company’s professionals, highlighting the business plan that focuses on the exchanges between the units, and leveraging best practices in both states.



Bracell Bahia employees during an event to celebrate Bracell’s rebranding.

“The Bracell brand unified companies in Bahia and São Paulo under a common purpose. I am very proud to work at Bracell and to have been part of several changes over 22 years. The company’s major works in recent times show how much we have evolved in management and processes. We strive for excellence in everything we do: we want to be the best supplier for our customers, the best partner for our service providers and the best employer for our employees.”

José Márcio

has been working for 22 years, now at the Seedling Nursery in Entre Rios (BA)

The ‘Somos Bracell’ campaign was recognized worldwide with the SABRE Awards Latin American Industry / Manufacturing Certificate of Excellence, an annual award given by PProvoke, the public relations industry’s leading source of news, trends, events, career information and intelligence that recognizes outstanding professionals and projects from around the world. Nationally, Bracell also received the Excellence Certificate from Prêmio Jatobá PR.

“After the acquisition of Lwarcel by Bracell, there was a moment of expectation concerning the new, the unknown. In a short time, there was already an active integration with Bracell Bahia, in staff, products and services. I am very proud to be part of the Bracell team. This company has its values defined at T.O.P.I.C.C., and it is committed to people, respecting the environment where it operates, and searching for continuous improvement. All of this indicates a promising future of development and great achievements.”

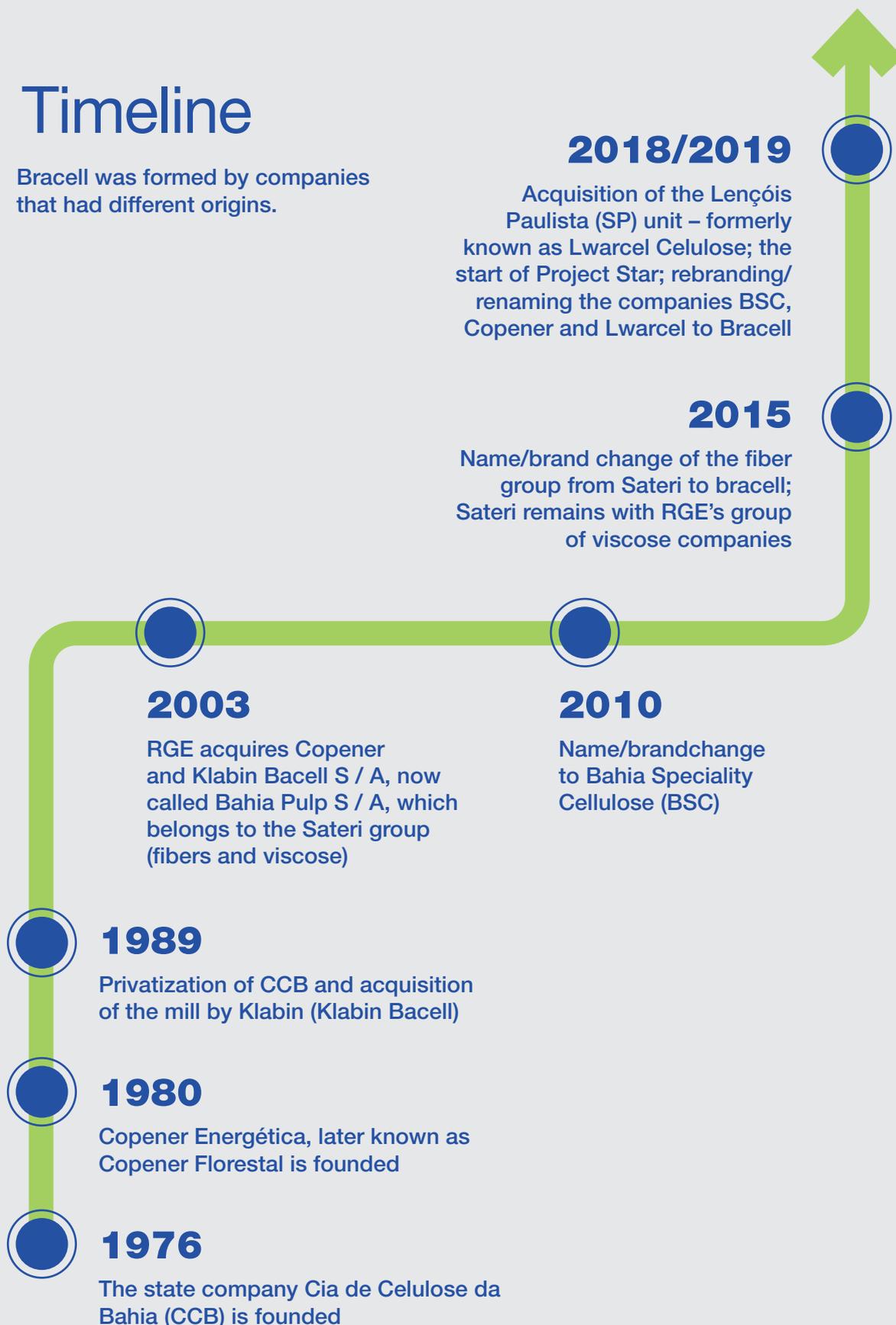
Nilson Rodrigues Sobral,
has been working for 25 years in the company, now in the area of Procurement at Bracell São Paulo



Bracell São Paulo employees during an event to celebrate Bracell's rebranding.

Timeline

Bracell was formed by companies that had different origins.



DISSOLVING PULP INDUSTRY: GENERATING VALUE GRI 103|203



Eucalyptus (GRI 203-2)

Dissolving pulp is one of the primary raw materials used to manufacture a wide range of products used by millions of people around the world every day. Bracell sources pulp from Eucalyptus, an Australian tree, currently planted in Brazil, occupying 5.7 million hectares, concentrated mainly in the states of Minas Gerais (24%), São Paulo (17%) and Mato Grosso do Sul (16%) and Bahia (11%).

In 2018, Brazilian average productivity was 36 m³ of eucalyptus wood per hectare per year (IBA, 2019)¹. The productivity has steadily grown due to investments in research in genetic improvement and forest management.

According to IBA 2019 and Embrapa 2015, investment in Eucalyptus forests is desirable due to a number of factors including its rapid growth. Today, it is possible to achieve an average planting to harvesting interval of six years. Other factors include their capacity to adapt, with high productivity, to different regions of the country, and the economic potential. What also make its cultivation attractive is the social and environmental benefits resulting from its production.

Eucalyptus plantations can provide benefits similar to other significant rural enterprises. It opens up a large number of direct and indirect jobs in seedling nurseries and forest cultivation and maintenance. It also provides additional tax revenue, investments in infrastructure, consumption of locally produced goods, promotion of different new businesses, and initiatives in the social area². Finally, Eucalyptus plantations also help to reduce rural exodus by settling people in the countryside.

Well-managed Eucalyptus plantations contribute to the improvement of air quality, thermal comfort, reduction of noise pollution levels, reduction of erosion rates, recovery of degraded areas, reduction of pressure on native forests, and increased biodiversity³.

¹ Indústria Brasileira de Árvores (Brazilian Tree Industry) – IBÁ. Relatório Iba 2019, São Paulo 2019, available in <https://www.iba.org/datafiles/publicacoes/relatorios/iba-relatorioanual2019.pdf>. Accessed on 07.30.2020.

² Instituto Brasileiro de Florestas (Brazilian Forest Institute), available in <https://www.ibflorestas.org.br/os-mitos-e-verdades-do-eucalip-to>. Accessed on 07.30.2020.

³ Empresa Brasileira de Pesquisa Agropecuária (Brazilian Agricultural Research Corporation) – Embrapa, available in <https://www.embrapa.br/florestas/transferencia-de-tecnologia/eucalip-to/perguntas-e-respostas>, ano 2019. Accessed on 07.30.2020.

Due to its rapid growth and high productivity, it is also highly efficient in the use of natural resources, such as water and nutrients⁴.

In Brazil, one hectare of Eucalyptus plantation captures an average of 10 tons of carbon from the atmosphere per year⁵, contributing to the reduction of pollution and the greenhouse effect. As managing industrial plantations require the allocation of permanent and specific areas for conservation projects, we actively manage these areas and create a habitat for fauna, offering conditions to shelter, feed and encourage the reproduction of different species.

⁴ Indústria Brasileira de Árvores (Brazilian Tree Industry) – IBÁ. Relatório Ibá 2019, São Paulo 2019, available in <https://www.iba.org/datafiles/publicacoes/relatorios/iba-relatorioanual2019.pdf>. Accessed on 07.30.2020.

Empresa Brasileira de Pesquisa Agropecuária (Brazilian Agricultural Research Corporation) - Embrapa, PLANTAÇÕES FLORESTAIS: GERAÇÃO DE BENEFÍCIOS COM BAIXO IMPACTO AMBIENTAL, available in <http://acr.org.br/download/biblioteca/01.pdf>, ano 2015. Accessed on 07.30.2020.

⁵ Fundação Brasileira para o Desenvolvimento Sustentável (Brazilian Foundation for Sustainable Development, in English). Workshop: O Sequestro de CO₂ e o Custo de Reflorestamento com *Eucalyptus spp* e *Pinus spp* no Brasil. Rio de Janeiro. 1994. 13 p.

Compared to petroleum, cellulose presents environmental, cost, and performance advantages.

Products and applications

(GRI 102-2, 102-6, 102-7)

Cellulose is an organic fibrous material present in the composition of plants. This natural and biodegradable polymer is used as a raw material in the manufacture of a wide variety of products.

When compared to similar raw materials such as petroleum, cellulose has several advantages in cost and performance, as well as for the environment, as it originates from a renewable natural resource: wood. All the wood used in Bracell's industrial processes comes from its eucalyptus plantations or from partner producers.



Lucas Santille, employee of Bracell São Paulo.

THESE ARE THE CELLULOSE VARIETIES PRODUCED BY BRACELL'S UNITS:

BRACELL BAHIA

Rayon-grade dissolving pulp

It is mainly used for:

- Viscose and lyocell fibers used in fabrics and nonwovens, for e.g. cleaning and baby wipes or cosmetic face masks.
- Viscose filaments used in delicate fabrics, such as women's underwear.
- Cellophane films for packaging.
- Viscose sponges for household and industrial cleaning.

Specialty-grade dissolving pulp

It is mainly used for:

- Cellulose acetate flakes that are converted into cigarette filters, yarns, and acetate fibers for fabrics and nonwovens as e.g. cleaning wipes.
- Microcrystalline cellulose used in the manufacture of pharmaceutical and food products.
- Nitrocellulose for the production of printing inks, special inks, enamels, and cosmetics.
- Industrial filament used to produce tire reinforcement.
- Other special applications, such as cellulose ethers for dentifrices and artificial casings for sausages.

BRACELL SÃO PAULO

Bleached eucalyptus kraft pulp

It is used to manufacture all types of paper, supplying the national and international markets. Usage examples:

- Printing and writing paper.
- Toilet paper (hygienic and towel).
- Packaging.
- Special applications such as filter papers, decor, self-adhesive papers, and adhesive tapes.
- Special applications such as filter papers, decoration, self-adhesive, interleaving and papers for medical or hospital use.

2019 Bracell's value chain

Bracell is committed to sustainable farming and operating state-of-the-art mills, continuously investing in technology and research to offer high quality products, delivered on time and at competitive prices.



Forestry Logistics

The roads where our trucks pass are planned to benefit the implantation and protection of forest plantations, firefighting and maintenance logistics.



Forestry Activities

Our forest base is properly managed and located in **103 municipalities**, **31 of which in Bahia** and, **72 in São Paulo**.



Seedling Nursery

Our seedlings are produced in 4 nurseries, two in Bahia (in the cities of Entre Rios and Inhambupe) and two in São Paulo (Lençóis Paulista and Borebi). In 2019, we reached the mark of **40.3 million seedlings**.

We invested R\$20.7 million in the reconstruction or maintenance of roads, benefiting the community.

About **10 million tCO₂** were absorbed from the atmosphere by planted eucalyptus forests.

More than **30% of the areas** are allocated for environmental preservation.

7,217 jobs created (direct and outsourced).



145 thousand people benefited from Bracell's social projects

98.8% of Bracell BA's sales volume was destined for export, which places Bracell as the largest company to move cargo through the port of Salvador (BA). The total exported by Bracell SP was 70%.

We are energy self-sufficient in both mills, and our power is generated from renewable sources that are part of our production process. We sold 100,695.38 MW_x of surplus energy.



Markets served

Sales volume by destination:
84% for international market
16% for local market



Industrial Activities

Bracell's production:
713,962 tons of pulp

Corporate Strategy

GRI 102-16

Bracell’s Mission, Vision, and Core Values express what the company believes in and strives to live in the daily operations, with behaviours that value excellence, teamwork, respect, integrity, and sustainability at all stages of the production process.

MISSION

Improving lives by developing resources sustainably

VISION

To be one of the largest dissolving pulp producers in the world, with the best management fully committed to the sustainable use of natural resources; we aim to consistently create value for the Community, the Country, the Climate, the Customer and the Company

CORE VALUES

Bracell believes that fulfilling its mission and achieving its vision for the future must adhere to a set of Core Values known as **T.O.P.I.C.C.**:

- T** We are aligned by our common purpose and work together as a complementary **T**eam;
- O** We take **O**wnership to achieve outstanding results and seek value at all times;
- P** We develop **P**eople to grow with us;
- I** We act with **I**ntegrity at all times;
- C** We understand our **C**ustomers and deliver the best value to them;
- C** We work with zero complacency and always strive for **C**ontinuous improvement in our processes.

The relevance of these values to the company reflects in the variable remuneration of all of Bracell's employees - 20% of the evaluation takes into account the fulfilment of objectives and targets associated with T.O.P.I.C.C.; the other 80% relates to performance targets established by the departments (GRI 404-3).

Human Capital

GRI 102-8, 103/401, 103 | 402, 103/405, 405-1

OUR PEOPLE

Bracell understands that our employees are the most valuable asset to achieve the best and most sustainable results. For this reason, it continuously invests in the development of their personal and professional skills to build and maintain the most outstanding talents in its team. To achieve this and to have an engaged team, the company promotes and rewards people based on performance and development. The company also values the recruitment of local talents and understands that, by prioritising their hiring, contributes to regional development.

In line with its Code of Conduct and [Sustainability Policy](#), the company:

- [Respects the diversity of workers](#), including race, religion, and gender, and does not tolerate any discrimination or abuse related to this;
- [Respects the freedom of association](#) in all business units;
- [Complies with all requirements](#) for hiring employees, including priority to qualified local workers;
- [Adheres to the International Labor Organization Declaration](#) on fundamental principles and rights at work;

- [Offers all employees](#) a safe, clean and adequately equipped workplace
- [Invests in behavioural](#) and occupational safety training;
- [Does not tolerate child or slave labor](#);
- [Works to increase employee awareness](#) of business sustainability; and
- [Advises employees to act politely and respectfully](#), regardless of hierarchy, position, or activity.

EMPLOYEE PROFILE

GRI 102-8, 405-1

In 2019, Bracell employed 3,120 professionals and 4,097 outsourced workers – 1,761 in São Paulo, and 2,336 in Bahia (average outsourced employees). The company also employed 25 interns and 25 apprentices in its operations in São Paulo, as well as one intern and 53 apprentices in Bahia.

The company strives to prioritise the hiring of local labor in the states where it operates while balancing the need to hire the most qualified individuals from the global market for its senior leadership positions (GRI 202-2).

Regarding the turnover of professionals in the company, 738 employees were hired at Bracell São Paulo and 373 at Bracell Bahia. On the other hand, 131 people left the organization in São Paulo, and 333 in Bahia (GRI 401-1).

The company established partnerships with institutions in the city of Lençóis Paulista ('Associação de Pais e Amigos dos Excepcionais' and Associação dos Deficientes Físicos de Lençóis Paulista) to employ people with disabilities (PcDs) in the forestry nursery unit. The organization also promoted the dissemination of vacancies for PcDs using newspapers and digital media.

In 2020, Bracell intends to carry out a diagnosis for planning a corporate diversity and inclusion program.

EMPLOYEES HIRED BY TYPE OF EMPLOYMENT*

	Bracell São Paulo			Bracell Bahia		
	Men	Women	Total	Men	Women	Total
Full time	1,266	256	1,522	1,236	362	1,598
Part time	-	-	-	-	-	-
Total	1,266	256	1,522	1,236	362	1,598

* Position on 12/31/2019. Interns and apprentices are not included.

EMPLOYEES BY TYPE OF EMPLOYMENT CONTRACT AND GENDER*

	Bracell São Paulo			Bracell Bahia		
	Men	Women	Total	Men	Women	Total
Fixed-term contract	0	0	0	74	32	106
Indefinite-term contract	1,266	256	1,522	1,162	330	1,492
Total	1,266	256	1,522	1,236	362	1,598

* Position on 12/31/2019. Interns and apprentices are not included.

EMPLOYEES BY TYPE OF EMPLOYMENT CONTRACT AND REGION*

	Bracell São Paulo			Bracell Bahia		
	Fixed-term contract	Indefinite-term contract	Total	Fixed-term contract	Indefinite-term contract	Total
Northeast	-	-	-	106	1,492	1,598
Southeast	0	1,522	1,522	-	-	
Total	0	1,522	1,522	106	1,492	1,598

* Position on 12/31/2019. Interns and apprentices are not included.

EMPLOYEES BY AGE GROUP*

	Bracell São Paulo	Bracell Bahia
< 30 years old	465	337
Between 30 to 50 years old	868	950
> 50 years old	189	311
Total	1,522	1,598

* Position on 12/31/2019. Interns and apprentices are not included.



Marlene Romagnolli, employee of Bracell São Paulo.

NUMBER AND PERCENTAGE OF EMPLOYEES BY FUNCTIONAL CATEGORY AND GENDER*

		Bracell São Paulo			Bracell Bahia		
		Men	Women	Total	Men	Women	Total
Director board	<i>Number</i>	1	0	1	3	0	3
	<i>Percentage</i>	100%	0	100%	100%	0%	100%
Senior Management	<i>Number</i>	7	1	8	5	0	5
	<i>Percentage</i>	87.50%	12.50%	100%	100%	0%	100%
Management	<i>Number</i>	30	6	36	20	7	27
	<i>Percentage</i>	83.33%	16.67%	100%	74.07%	25.93%	100%
Head/coordinator	<i>Number</i>	63	14	77	45	7	52
	<i>Percentage</i>	81.82%	18.18%	100%	86.54%	13.46%	100%
Technical / supervision	<i>Number</i>	23	9	32	333	139	472
	<i>Percentage</i>	71.88%	28.13%	100%	70.55%	29.45%	100%
Administrative	<i>Number</i>	216	123	339	109	77	186
	<i>Percentage</i>	63.72%	36.28%	100%	58.60%	41.40%	100%
Operational	<i>Number</i>	926	103	1,029	714	126	840
	<i>Percentage</i>	89.99%	10.01%	100%	85%	15%	100%
Trainees	<i>Number</i>	0	0	0	7	6	13
	<i>Percentage</i>	-	-	-	53.85%	46.15%	100%
Total	<i>Number</i>	1,266	256	1,522	1,236	362	1,598
	<i>Percentage</i>	83.18%	16.82%	100%	77.35%	22.65%	100%

* Position on 12/31/2019. Interns and apprentices are not included.

**In 2019, Bracell employed
3,120 professionals and
4,097 outsourced workers.**

EMPLOYEES BY FUNCTIONAL CATEGORY AND AGE GROUP (IN %)

	Bracell São Paulo				Bracell Bahia			
	< 30 years old	30 to 50 years old	> 50 years old	Total	< 30 years old	30 to 50 years old	> 50 years old	Total
Director board	0	0	0.07%	0.07%	0	0	0.19%	0.19%
Senior Management	0	0.39%	0.13%	0.53%	0	0.25%	0.06%	0.31%
Management	0.07%	1.58%	0.72%	2.37%	0	1.56%	0.13%	1.69%
Head/ coordinator	0.07%	4.27%	0.72%	5.06%	0.06%	2.82%	0.38%	3.25%
Technical / supervision	0	1.84%	0.26%	2.10%	5.26%	21.21%	3.07%	29.54%
Administrative	10.25%	10.51%	1.51%	22.27%	3.32%	7.38%	0.94%	11.64%
Operational	20.17%	38.44%	9%	67.61%	11.70%	26.16%	14.71%	52.57%
Trainees	0	0	0	0	0.75%	0.06%	0	0.81%
Total	30.6%	57%	12.4%	100%	21.09%	59.45%	19.46%	100%

SENIOR MANAGEMENT MEMBERS HIRED FROM THE LOCAL COMMUNITY, EM 2019***Bracell São Paulo**

Total of senior management members hired in 2019	5
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Senior management members hired from the local community	2
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Percentage of senior management members hired locally	40%
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Bracell Bahia

Total of senior management members hired in 2019	1
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Senior management members hired from the local community	0
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Percentage of senior management members hired locally	0%
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*The term "senior" refers to senior manager positions and above. "Local" are those who, when contracted, had residency in the state of São Paulo or Bahia.

EMPLOYEES HIRED IN 2019. BY AGE GROUP

	Bracell São Paulo		Bracell Bahia	
	Number	Percentage	Number	Percentage
< 30 years old	364	49.3%	116	31.1%
from 30 to 50 years old	346	46.9%	240	64.3%
> 50 years old	28	3.8%	17	4.6%
Total	738	100%	373	100%

EMPLOYEES WHO LEFT THE COMPANY IN 2019, BY AGE GROUP

	Bracell São Paulo		Bracell Bahia	
	Number	Percentage	Number	Percentage
< 30 years old	75	57.3%	85	25.5%
from 30 to 50 years old	45	34.4%	227	68.2%
> 50 years old	11	8.4%	21	6.3%
Total	131	100%	333	100%

EMPLOYEES HIRED IN 2019, BY AGE

	Bracell São Paulo		Bracell Bahia	
	Number	Percentage	Number	Percentage
Men	596	80.8%	292	78.3%
Women	142	19.2%	81	21.7%
Total	738	100%	373	100%

EMPLOYEES WHO LEFT THE COMPANY IN 2019, BY GENDER

	Bracell São Paulo		Bracell Bahia	
	Number	Percentage	Number	Percentage
Men	104	79.4%	247	74.2%
Women	27	20.6%	86	25.8%
Total	131	100%	333	100%

EMPLOYEES WHO LEFT THE COMPANY IN 2019, BY REGION			
Bracell São Paulo		Bracell Bahia	
Number	Percentage	Number	Percentage
131	100% southeast region	333	100% northeast region



Raiane Santos, employee of Bracell Bahia.

The Apollo Project also continued to progress. Its objective is to ensure that the company's Core Values are increasingly incorporated into the daily work practice, starting with company's leadership. Leaders are trained through Bracell Leadership University - BLU in Bahia. Its courses are formatted based on managers' performance and behavioural assessments, and by plans of individual development. BLU developed the following initiatives:

- **In-company leadership training:** five behavioural skills modules for managers and coordinators;
- **Harvard Manage Mentor E-learning:** two online programs for managers and coordinators, twelve modules each. One of the programs is based on the managers' points of improvement and the other on what the individual considered necessary to be addressed;
- **Executive MBA:** a group of 10 employees - managers and high performers - was selected for the courses in Business Management and Project Management;

PEOPLE DEVELOPMENT

GRI 1031404, 404-1

In 2019, Bracell collectively provided its employees with 102,561 hours of training, meeting all legal requirements on people development. We also helped upskill employees in line with the specific demands of their tasks as well as the data from their yearly professional evaluation.

- **Executive coaching:** 7 managers and senior managers from Bahia also received executive coaching support.

In 2020, within the BLU scope, the Future Leadership Program will train managers (from the SP and BA teams) in management. The program content is unified for all companies in the group to which Bracell is a part. Another planned initiative is the Executive Leadership Program (ELP), for the development of executives who occupy senior manager positions. The course lasts six years and takes place in Singapore, including the 70/20/10 methodology, consisting of 70% of the program time allocated to conducting Lean projects, 20% in executive mentoring, and 10% in training.

In addition to the Corporate University, other courses were delivered, such as the Training in Wild Animals Handling and Rescuing - in Bahia, the initiative involved 40 employees from the Forest Fire Brigade and the Technical Sector, to ensure the survival of animals who suffered any impact in any way either by the action of the company or humans.

One of the highlights was the consolidation of Bracell Leadership University, in Bahia.



Cláudio Nelli, employee of Bracell São Paulo.

EMPLOYEES TRAINING AVERAGE HOURS BY GENDER, IN 2019

	Bracell São Paulo			Bracell Bahia		
	Total number of employees	Training hours (h)	Average training hours/employee (h)	Total number of employees	Training hours (h)	Average training hours/employee (h)
Men	1,266	22,568	17.82	1,236	72,279.43	58.48
Women	256	1,882	7.35	362	5,831.54	16.11
Total *	1,522	24,450	16.06	1,598	78,111	48.88



AVERAGE TRAINING HOURS / EMPLOYEE IN 2019

	Bracell Bahia*
	Average training hours / employee (h)
Director board	20.67
Senior Management	216.78
Management	2.79
Head/coordinator	54.03
Technical / supervision	7.77
Administrative	35.98
Operational	69.03
Trainees	441.46

* Apprentices and interns are in the "administrative" category.

Integration

In 2019, the company redesigned its Integration Program for new employees to ensure alignment with the company's Core Values - T.O.P.I.C.C. It covers topics such as Mission and group values; Expansion Project; Occupational Health and Safety; Environmental Awareness; Integrated Management System; Information Technology; and Code of Conduct. At the conclusion of the program, new professionals receive the printed version of the company's Code of Conduct, and are requested to sign the document which is subsequently filed by Human Resources.

In Bahia, the new training pilot project was introduced at the mill and, since January, has been simplified to take place in 1.5 days. In October, in São Paulo, the program was reviewed with standardization of presentation, and the capacitation of multipliers. A friendly welcome email to new members of the team was introduced.

Recognition

Every year, Bracell promotes recognition to its professionals for their time in the company. The Our Stories event took place in São Paulo, honouring employees who completed 25 and 30 years in the company (nine and seven people, respectively). In Bahia, the Recognition for Company Time Award featured professionals for one or two decades of work at Bracell (13 and 6 employees, respectively).

Good Ideas Program

In the Forestry unit of Bahia, there is The Good Ideas Program that works as a channel to suggestions for process and equipment improvement in the operational areas. The objective is to democratize the innovation process, allowing everyone to contribute. Ideas may be sent via email, using an appropriate form, to the company's Efficiency area. The authors' ideas that are used receive a prize.

Performance analysis (GRI 404-3)

At Bracell, 100% of employees received performance and career development reviews every six months, through the PRP - People Review Program.

For all employees, the evaluation consists of three dimensions: behavioral, results and responsibilities. Formal feedback from the manager to the employee occurs every 6 months: in the middle of the year, when the manager gives feedback informing the result of the behavioral assessment of the first semester and aligns the progress of the goals; and at the end of the year, when the manager gives feedback regarding the final results achieved in all aspects evaluated.

For all positions at the executive level (technical assistants, lawyers, auditors, specialists, coordinators, managers, senior managers and directors), employees are also evaluated considering adherence to the company's values (T.O.P.I.C.C. - 20% of the total grade) and the compliance with formal objectives established in performance contracts (80% of the grade).

The People Score Card is a tool used by Bracell to evaluate employees regarding leadership skills and people development for succession – valid only to the positions of directors and senior managers.

At Bracell, 100% of employees received performance and career development analysis.

At Bracell, the result of the performance evaluation is used to make decisions regarding the development of employees, respecting the eligibility for each position, such as: promotion, training, bonus and/or participation in the Education Incentive Program.

Talent attraction

In 2019, Bracell SP opened 14 vacancies in its trainee program for young graduates in different areas. Over a year, those accepted into the program learn about the unit's processes and participate in a development plan that includes behavioral content workshops, coaching with a specialized consultancy, and mentoring.

At the São Paulo unit, the Apprentice Program continued to prepare and integrate young people into the universe of work. Developed in partnership with the Senai of Lençóis Paulista and the Legião Mirim (Feminina) of Lençóis Paulista, it capacitated 34 people.

In Bahia, the company offers a program called Novos Talentos Bracell, to attract young graduates in Chemical Engineering. Participants learn the company's processes and, also gain access to professional development by leaders from the Process and Technology area. Vacancies are open to the internal and external public, with three people selected.

EARNINGS AND BENEFITS

(GRI 102-41, 103|201,202-1, 401-2)

To ensure its competitiveness and provide adequate remuneration, the company conducts market research and offers earnings above the Brazilian minimum wage (MW). In 2019 in Bahia, for the industrial unit, the lowest wage paid was R\$ 1,502.08 (USD 290.53), 50.5% above the MW. The lowest remuneration paid in the forestry unit was R\$ 1,091.42 (USD 211.10), 9.3% above the MW. In the same year in São Paulo, the lowest recorded reached R\$ 1,220.26 (USD 236.02), or 22.3% above the MW.

Benefits offered by the company include medical and dental assistance with national coverage, meals at the company and/or meal vouchers, meal cards, payroll loans, free chartered buses, childcare and pharmacy assistance, life insurance, and annual allowances for school materials.

The company constantly monitors the market to ensure adequate remuneration of the sector and a wide range of benefits.

In São Paulo, there is also moving assistance for people from outside (for all positions), and for eligible positions, there is a private pension plan (in which employees contribute 50% of the monthly amount stipulated individually, and the company complements the other 50%) in addition to profit sharing (GRI 201-3). The company also offers health insurance, with the possibility of extending the plan to retirees, with the payment of 100% of the monthly premium, once specific rules are met, according to the social security contribution time.

In Bahia, the benefits portfolio also includes vacation return bonus, aid for employees who have children with some disability, laundry costs and wage complements for employees in sick leave or cases of work-related accidents. Everyone also benefits from agreements with drugstores chains, optical shops, gyms, and educational institutions offering more favorable pricing and payment conditions. There are also partnerships with institutions such as the Social Service of Industry (Sesi), providing employees access to sports and leisure activities. Bracell Bahia offers private pension plans to eligible positions, a fund in which the company complements the contributions of employees (GRI 201-3).

HEALTH AND SAFETY AT WORK

(GRI 1031403, 403-1, 403-2, 403-3, 403-04, 403-5, 403-6, 403-7, 403-8, 403-09, 403-10)

Caring for the employees' health and well-being is the objective of Bracell's policies on Occupational Health and Safety areas. They follow the best practices for recognizing, assessing, and controlling occupational and accident risks. The company provides medical evaluations and exams that exceed guidelines required by law and works to prevent accidents and diseases through educational campaigns.

At Bracell, we follow the Regulatory Norms for Safety and Occupational Medicine and the Risk Management Plan. Although the company has not yet sought certification under ISO45001 (Occupational health and safety management system), our Integrated Management System incorporates good practices related to the topic. The internal procedures describe and detail the standards and norms applicable to all practices exercised by employees.

Bracell reinforces its commitment to addressing issues related to the health and safety of all workers and suppliers involved in our production process, as demanded by the Brazilian legislation. All activities performed in the company have a risk analysis (Safe Work Permit, Task Safety Analysis, Preliminary Risk Analysis) with the definition of control measures to ensure the employees' safety and the qualification of all people involved. Before starting their work, all professionals (both own and outsourced) receive personal protective equipment. An individual record control is maintained to

determine the frequency of replacement of this equipment.

One of the instruments used by Bracell to achieve its goal of zero accidents at work is the execution of a behavioural audit program in all its units. Through the audit, participants make notes, encouraging everyone to behave safely. Based on the indicators generated, educational campaigns, new training, and new strategies for the Health and Safety at Work area are developed. In 2019, both São Paulo and Bahia quickly reached the targets set for the behavioural audit program at 80% (reached 99.2% and 98%, respectively).

The Daily Safety Dialogues are held, in addition to routine meetings such as critical analysis. The Health and Safety at Work programs include a preventive card (a physical ID) which allows the worker to stop and report unsafe conditions when they occur, and be free to refuse to carry out those activities. Several trainings are offered throughout the year. The teams received more than 46,000 training-hours in health and safety topics (GRI 404-1).

To ensure the safety of outsourced employees, the Occupational Safety department carries out periodic inspections at all service suppliers to verify compliance with labor and social security laws, procedures, and internal rules. The monitoring of the Environmental Risk Prevention Program, the Occupational Health Medical Control Program, and the Technical Report on Working Environment Conditions are also completed. There are also statistical follow-ups, emergency drills, and integration training for everyone involved in the production process.

On safety, one of the highlights of the year was the internal campaign/programme¹ for Prevention of Work Accidents and Prevention of Rural Work Accidents. The activities involve direct and outsourced employees. Organized by the Internal Commission for Accident Prevention – comprised of company

¹Are these names of programmes/campaigns

A set of initiatives that ensure the safety and health of employees

professionals - and by Workplace Safety, the initiatives included lectures, simulations, among others.

There was also a mobilization to value drivers who transport wood and make them aware of safe practices. The first Internal Week for the Accident Prevention of Wood Transport took place in Bahia, with the theme 'Knowing the face behind the wheel.' The event was aimed at drivers, supervisors, and crane operators of service providers. One hundred ninety-seven employees of Bracell service suppliers attended the training.

WORK SAFETY PERFORMANCE AT BRACELL BAHIA – EMPLOYEES

	Forestry (Alagoinhas/BA)				Industrial (Camaçari/BA)			
	Number of accidents		Accident Rate		Number of accidents		Accident Rate	
	CAF	SAF	CAF	SAF	CAF	SAF	CAF	SAF
2019	0	0	0	0	2	2	1.2	1.2

WORK SAFETY PERFORMANCE AT BRACELL BAHIA – OUTSOURCED WORKERS

	Forestry (Alagoinhas/BA)				Industrial (Camaçari/BA)			
	Number of accidents		Accident Rate		Number of accidents		Accident Rate	
	CAF	SAF	CAF	SAF	CAF	SAF	CAF	SAF
2019	1	2	0.2	0.5	0	3	0	1.7

CAF: accident with leave. **SAF:** accident without leave. **Accidents frequency rate:** number of accidents x 1,000,000 / total man-hours worked.

WORK SAFETY PERFORMANCE AT BRACELL SÃO PAULO – EMPLOYEES

	Forestry (Lençóis Paulista/SP)				Industrial (Lençóis Paulista/SP)			
	Number of accidents		Accident Rate		Number of accidents		Accident Rate	
	CAF	SAF	CAF	SAF	CAF	SAF	CAF	SAF
2019	1	17	0.9	15.8	1	6	0.6	4.1

WORK SAFETY PERFORMANCE AT BRACELL SÃO PAULO – OUTSOURCED WORKERS

	Forestry (Lençóis Paulista/SP)				Industrial (Lençóis Paulista/SP)			
	Number of accidents		Accident Rate		Number of accidents		Accident Rate	
	CAF	SAF	CAF	SAF	CAF	SAF	CAF	SAF
2019	2	40	0.5	10.6	3	11	5.4	20.1

CAF: accident with leave. **SAF:** accident without leave. **Accidents frequency rate:** number of accidents x 1,000,000 / total man-hours worked.

Additionally, the company launched awareness campaigns and held events addressing topics such as the importance of wearing belts, adhering to speed limits, zero tolerance on drinking alcohol while driving, and the necessity to gain sufficient sleep before driving.

In recognition of the professionals who adopt the best safety practices in the forestry and industrial units, Bracell Bahia created the '100% safe journey' programme. Participants receive buttons (bronze, silver, and gold categories) according to their evolution in the program categories. At the end of the year, those who stand out receive a special award.

In addition to the Occupational Health Certificate performed to monitor their well-being every year, Bracell promotes and encourages participation in street races, sends weekly health-related messages, manages the working hours and restrictions to avoid overtime (to encourage a balance between personal and professional life). The company also

develops a series of campaigns on particular dates, including awareness of STD / HIV, vaccination, campaigns on breast cancer (Pink October), and prostate cancer (Blue November), among others. Also noteworthy is the Mother Program, First Steps, which guides the new mother, whether a collaborator or a collaborator's partner, along the nine months of pregnancy, with medical tips and alerts.

At Bracell Bahia, there is a health program for outsourced employees in which doctors and nurses visit staff working in the field.

Development and social inclusion



Event of Circuitos Cidades Paulista project, carried out at Lençóis Paulista.

Bracell's legacy for the future

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

CHARACTERIZATION OF THE TERRITORY WHERE THE COMPANY OPERATES

(GRI 411-1, 413-2)

In Bahia, Bracell has mapped 335 communities, including 72 quilombolas (communities originally organized by fugitive slaves) recognized by the Palmares Foundation; 135 of the communities are located in the area of influence of forestry operations (ADA - area directly affected), of which 8 are quilombolas. There are also two areas classified as High Social Conservation Value (HSCV)¹. The municipalities in Bracell's sphere of influence were defined according to the existence of forestry units within their territorial base.

In 2012, to understand the socio-economic situation of the municipalities where it operates, Bracell hired a specialized consultancy to carry out a diagnosis. It traced the historical, socio-economic, and political portrait of the cities, allowing the company to better understand the surroundings of the company's activities.

¹ According to FSC classification (<https://br.fsc.org/pt-br>), they are areas that meet basic and vital needs for local communities. They may be relevant to subsistence and health and/or have some critical attributes of cultural value (trails, places of worship, old churches or cemeteries, archaeological sites, and others).

In São Paulo, a socioeconomic analysis of the 16 municipalities in the vicinity of the Star Project was carried out in 2019, to understand the potential effects on economic activity and social development of the cities belonging to the area of its direct influence. Bracell forest management influenced, directly or indirectly, a region inhabited by around 1.3 million people, 90% of whom live in urban areas - corresponding to 72 municipalities in the Midwest of São Paulo. Four indigenous communities were identified - Kopenoti, Tereguá, Nimuendaju, Ekeruá - in the Araribá Indigenous Land, in Avai / SP, close to Bracell's managed areas. Although the industrial activity is within a radius of more than 10 km from the community, the company carried out a quickly participatory diagnosis with the chiefs of the villages. The socio-environmental impacts that the communities consider important and their requests were mapped (GRI 411 -1). No HCV were registered at Bracell São Paulo, beyond the two already identified in previous years.

For 2020, Bracell's goal is to initiate a socio-economic and environmental diagnosis of the central municipalities in its forest base in São Paulo, to establish a baseline and monitor the indicators over time, thus identifying the positive or negative impacts of the company in the region.



Local community participates in the activities of Mais Cidadania Project, in Bahia.

RELATIONSHIP WITH LOCAL COMMUNITIES

(GRI 102-43, 102-44, 412-1)

Bracell always seeks to be responsible when protecting the environment, respecting human rights, and developing the locations where it operates. The company focuses on creating long-term shared value with its stakeholders, and seeks to meet the social demands through two axes:

1. Continuous dialogue to mitigate the impact of Bracell's operations (GRI 102-43, 102-44, 412-1)

Bracell has procedures for mapping communities and keeping a continuous dialogue with stakeholders impacted by its forest activities.

To keep interested parties informed about the evolution of its operations, the company has created the **Meeting with Communities program**. The program puts in contact company professionals with people from the locations where the operations will take place, explaining all the processes developed (such as planting, harvesting, and transportation), establishing communication channels to report concerns, demands or complaints. In Bahia, 104 meetings with different leaders were held in 2019, with an audience of more than 2,600 people, in addition to 996 representatives of the government and other entities. In São Paulo, 222 contacts were made, in addition to the 182 people who were contacted during the operational dialogue, which made it possible to assess and monitor social impacts during management activities.

“I hold Operational Dialogue meetings informing neighbouring communities about our forestry activities, their impacts, and measures to mitigate them. We aim to strengthen the relationship with neighbours, ensure that Bracell is a responsible company, and wants to reduce the impacts of its forestry operations. Determination is the word that comes to mind when I think of Bracell.”

Dailson Ramalho Lima

has worked for 12 years at Bracell, in the Institutional Relations and Corporate Social Responsibility area at Bracell Bahia.

Bracell has a procedure to guide the relationship the company has with neighboring communities and establish the necessary activities in this interaction. The Community Relations team visits the forest projects daily, surveys the activities and potential social impacts, and uses assessment and impact mitigation tools. They update the information about communities that the company already has a relationship with and map new ones.

At Bracell Bahia, the following dialogue projects with the community also stand out:

- **Movie in the Field program:** launched in 2014, provides residents of rural communities with access to free cinema sessions, with themes related to the reality of these places, and always with the presence of psychologists. In addition to entertainment, it is an opportunity for the company to discuss relevant topics to communities. In 2019, 2,486 people participated in 35 sessions, in 34 communities in 13 municipalities in Bahia;
- **Community Forest Safety Committee** - learn more on page 91.

“My daily life is a constant challenge, but an extraordinary learning experience. I always have the opportunity to improve as a person and as a professional. I am grateful to enter people’s homes and bring clarity and confidence about Bracell’s work. The importance of a good relationship with our stakeholders is to open a dialogue channel and present the company’s forest management activities and good practices. I feel proud and pleased to work in a company that values people. Bracell has mitigating actions to control or eliminate the negative impacts of operational activities, and this makes a total difference in the lives of people who live in communities that are located around the areas in which we operate”.

*Andréia de Almeida Bueno
has worked at Bracell São Paulo since 2019,
in the Institutional Relations and
Corporate Social Responsibility area.*

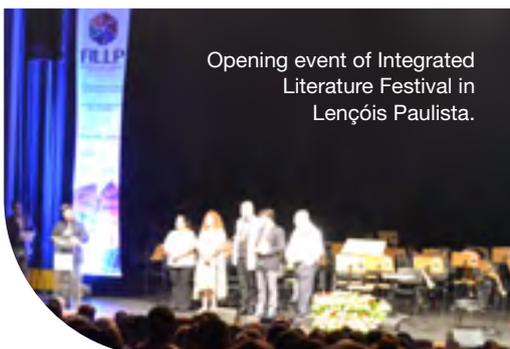
**Dialogue with stakeholders
in its areas of operations
is a continuous activity
of the company.**

2. Private social investment

Bracell promotes and coordinates social projects in three pillars – the **3 Es: Education, Empowerment, and Enhancement**, based on the following principles:

- **Flexibility and adaptability** to the different needs of the stakeholders;
- **Focus on people and collective needs**, in different cultures and realities;
- **Development of collaborative actions** and co-responsibility;
- **Priority in projects** that enable the creation of shared value;
- **Constantly seek** to apply the concept of sustainable development throughout the project; and
- **Obtaining direct and indirect**, measurable, and qualitative results.

At Bracell Bahia, more than 64,000 people in different locations benefited from 23 social projects. At Bracell São Paulo, 9 projects were carried out with its own resources and tax incentives, supporting more than 81,000 people.



Opening event of Integrated Literature Festival in Lençóis Paulista.

Besides social projects, the company makes specific donations and sponsorships to meet the needs of communities and municipalities. In 2019, 127 donations/sponsorships were given in Bahia, in addition to 51 actions and 17 partnerships with city halls. In São Paulo, 63 donations and sponsorships were given to entities and initiatives promoted in the region of Lençóis Paulista, Sao Paulo, such as support for Ação Cidadania Contra a Fome, a Miséria e pela Vida (a citizenship action); 'Amaral Carvalho' Hospital; Associação de Pais e Amigos dos Excepcionais (APAE) (a disabled people institution); 'Nossa Senhora da Piedade Hospital' and 'Santa Casa de Macatuba' Hospital, among others.

Bracell invested more than R\$ 3.6 million (approximately USD 696,000¹) in 2019 in private social investment projects.

More than 145,000 people benefited from Bracell's 32 social projects.

190 donations and specific sponsorships to meet the humanitarian demands of communities and/or municipalities

Each year, Bracell enters into new and essential partnerships, expanding the scope and impacts of the projects developed.

¹ Exchange rate considered the following: R\$ 5.17 for each USD 1.00 (Brazilian Real to US Dollar).



BRACELL Education

Among our pillars of social action, education has been Bracell's primary focus. Our educational investments add efforts to the municipalities' public policies, resulting in a visible evolution in the performance of educators and students.

In 2019, our educational projects in Bahia benefited more than 43,000 teachers and students. In São Paulo, the company supports the Hardware Project, of the Legião Mirim of Lençóis Paulista/SP, which seeks to provide technical and professional training for 20 young people in two periods, with a total of 156 hours.

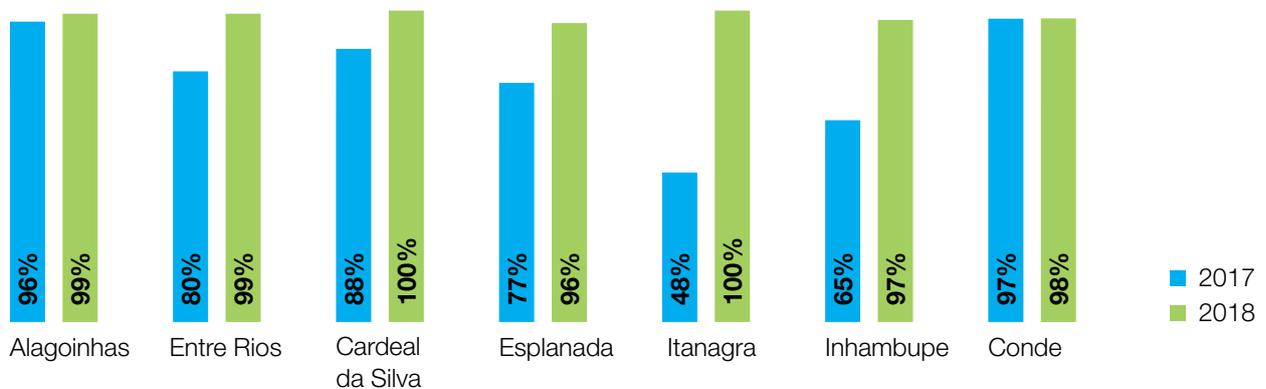
Here are several projects at Bracell Bahia:

- **Educação Continuada (Continuing Education):** this four-year program continues to strengthen educational practices in the municipalities in the company's area of influence, through the implementation and strengthening of the 'Municipal Continuing Education Policy' concerning professional practices. The main results of the project are the reorganization of the administrative structure of the schools, the elaboration of an annual work plan capable of arousing student's interest, the significant increase in the number of literate children of an appropriate age, in addition to better public school management. Expressive results:

- > 'School Action Plan' and 'Writing System Analysis': before the project, 22% of the schools used it, compared to 100% now.
- > Pedagogical support plan, 'Reading Plan,' and 'Projeto Brincar': not carried out before, today it is implanted in 100% of schools.

34,676 students and 2,314 teachers and school professionals benefited (480 public schools).

EVOLUTION OF CHILDREN'S LITERACY DEVELOPMENT INDEX



*This indicator is the result of the Writing System analysis carried out by the municipal education departments (participants in the Educação Continuada Project) under the Chapada Institute of Education and Research (Icep), our technical partner in the project.

- **Music School:** this program stimulates children's and teenagers' musical initiation from public schools, contributing to the cultural formation, socialization, and promotion of these students. Through the program, Bracell makes it possible to hold music classes outside regular school hours. The project provides participants choral singing, soprano recorder lessons, and children's music classes. The program benefited 733 students in seven municipalities.
- **Fest in Canto:** this is the Inter-school Festival of New Talents in Music, exclusively for students from public schools in seven townships in Bahia. It seeks to identify talents, contribute to the cultural and regional development of the municipalities, using music as a socialization tool among students, parents, and their communities. Fest in Canto provides cash prizes for the first and second places in each category (children and youth), as well as the opportunity to record a CD, with 1,000 copies. 633 students from 176 schools signed up for the festival, performing to an audience of more than 2,800 people.

Environmental education projects:

- **Casa da Árvore (Tree House):** Eco-social Center: increases environmental awareness through initiatives such as lectures, handicraft and recycling workshops, ecological trails, springs recovery, and guidance on the correct waste disposal. The Neco (Eco-social center) is open to students from across the region and Bracell's employees, outsourced workers, and their families. Neco received more than 3,800 visitors.
- **Springs and riparian-zone restoration:** aims to train the multiplying agents of environmental education through collective efforts to recover riparian forests and springs in the Subaúma, Catu, and Sauípe river basins, with the support of local residents. Partnerships are made with public authorities, educational institutions, and communities to map the areas to be recovered and planted. 15 springs were recovered, and 1,245 native seedlings planted.
- **Ecomunidade:** provides participants with an understanding of the environment and socio-environmental contexts where they live, encouraging mindful attitudes towards nature conservation and proper use of natural resources. Activities include monthly training meetings, ecological competitions, recycling workshops, soapmaking workshops, and parks built with eucalyptus wood. More than 1,010 people participated in these actions.

“Before the Educação Continuada project, not all schools had the figure of the pedagogical coordinator. And one of the project’s proposals is that schools have the support of this professional. Therefore, it is a structure that affects the whole school, both at the organizational and pedagogical levels. And the results are reflected in the municipality’s Ideb (Basic Education Development Index): we went from 1.2 years ago to 3.7. It is still a low average, not ideal, but there was a progress strongly linked to the municipality’s training work. Now, we have to strengthen our actions to increase these rates over the years.”

Jociara Franco, pedagogical coordinator of the Inhambupe Department of Education



Bracell encourages local communities to identify vocations capable of generating employment, income, and empowerment, in addition to discovering talents and promoting leadership. At developing partnerships with various institutions, we structure productive groups, making them autonomous with their businesses.

In 2019, about 30,000 people benefited, directly or indirectly by projects, considering the 15 consolidated empowerment projects developed by Bracell in Bahia and São Paulo.

Here are this year’s highlights:

- **Art and craftsmanship with liana and piassava palm:** this project involves liana and piassava pickers and artisans on the north coast of Bahia. It gives them access to courses on sustainable fiber extraction, processing, development, improvement, and product marketing. With the liana and piassava, they produce handmade products such as bags and baskets. The program benefited 109 artisans from ten communities of three municipalities.
- **Oficina dos Sonhos (Dream Workshop):** the project started in 2019 in Lençóis Paulista, Sao Paulo, sponsored by the National Culture Support Program (Pronac) and Bracell, organized by the Quest / Zepellin agency, and support from the city of Lençóis Paulista. It consists of a free course integrating carpentry, design, and entrepreneurship. The project benefits more than 60 people and includes the implementation and maintenance of a laboratory for the design and production of wooden objects (toys). It is scheduled for completion in June 2020.
- **Beekeeping Project SP:** carried out with Bracell São Paulo’s resources, whose objective is to promote the multiple uses of Bracell’s forest as beekeeping pasture for 8 Beekeepers’ Associations of five macro-regions surrounding the plant – Lençóis Paulista, Bauru, Botucatu, Avaré and Marília. The project aims to increase honey production and promote income generation of eucalyptus plantations and native forests, sharing Bracell’s asset with the community. The project started in late 2019.

- **Beekeeping Project BA:** long-time partnership between Bracell and producers in the northern coast and the Agreste region of Bahia state. It promotes the installation of beehives in company-owned native forests. Seven beekeepers' associations from the municipalities of the region collaborate in this project. 167 beekeepers benefited, and more than 96 kg of honey were produced.
- **Farmácia Verde (Green Pharmacy):** running in Bahia since 2017, the program generates income through the cultivation of medicinal plants, technical training, production of tonics, and perfumery articles. It takes place in the quilombola communities of Cangula in Alagoinhas, of Gamba in Entre Rios, and in the Ana Rosa Settlement, in Pojuca. It employs a methodology that is both theoretical and practical, requiring the participants to study and apply

phytotherapy in natural medicines. It contemplates knowledge about the interaction of plants with the human body and guidelines for commercialization of them. In 2019, Bracell held the seminar "Medicinal Plants: tradition, science and quality of life," which discussed the use of this knowledge and science in SUS (Brazilian Unified Health System). Bracell also implemented the Naturotherapy course for health agents from rural communities and participants in the Farmácia Verde project, benefiting 34 people from 17 communities and three municipalities. Also, a soapmaking course that encourages the use natural glycerine-techniques for the production of soaps and essential oils was launched.

- **Uniform factory:** launched in 2014 in the municipality of Inhambupe (BA), the project has trained 40 women from the communities to work as industrial seamstresses. The project is housed in Bracell's warehouse, which has been remodelled and equipped with state-of-the-art sewing machines for the full development of activities and where uniforms are produced for several companies in the region, including Bracell. Eleven women were associated to the cooperative, and they generated an income of R\$ 73 thousand.

- **LideraJovem:** Bracell São Paulo sponsors the LideraJovem Institute (LJI), a not-for-profit organization that carries-out activities and projects for the development of empowerment, ownership and leadership skills for adolescents and young people from Lençóis Paulista and region. In 2019, 808 teenagers directly benefited (trained and assisted) by 12 projects, and more than 23,000 people were indirectly benefited, through 59 activities linked to LJI's projects, organized by these adolescents and young people.



Maria Cristina da Paixão
Carvalho, from Cangula
Quilombola Community.



Natural soap, produced by Farmácia Verde (Green Pharmacy) project.

- **Seedling Nursery:** it was implanted by Bracell Bahia in 2018, in the Imbé community, in Entre Rios, for the production of seedlings of native fruit trees and ornamental species, to generate income for women. Bracell provided the site, infrastructure, training, and monitoring tools. Eight women were in charge of the project, producing 12 thousand seedlings.

“Farmácia Verde is a project that we started with a survey in the community and the discovery of the wealth of plants that we have in Bahia. Hence, a simple initiative emerged to learn how to use plants, but it went beyond what we imagined, and today we also maintain a university extension course in Naturopathy. Knowledge is the outstanding result of the project because knowledge is all! Taking knowledge to other people, promoting hope, is an unparalleled sensation. But we are still at the beginning having a lot to learn, and we will move forward, facing all the challenges.

Everything we’ve achieved so far has come through a bridge called Bracell. That is why the word ‘opportunity’ comes to my mind when I think of the company.”

*Valcineide Mendes de Santana
is an integrant of the
Farmácia Verde in Cangula.*



BRACELL Enhancement

Bracell promotes health, citizenship, culture, and quality of life, free of charge, to the people around its operations. More than 72 thousand people benefited. Among them, the following stood out in 2019:

More than 72 thousand people benefited by Enhancement initiatives.

- **‘Circuitos Cidades Paulista’ project:** carried out through the Fiscal Incentive Law (Sports Incentive Program) sponsored by Bracell, organized by the Access Network and support from the city of Lençóis Paulista. The circuit of street running and walking aims to encourage physical activity and promote health and well-being in communities. With 2,000 vacancies and free registration, the Lençóis Paulista stage was held in October 2019 and was attended by more than 1,700 people. A solidary action collected 1,553 liters of milk in favor of the Cancer Fighting institutions of Lençóis Paulista and Macatuba.
- **‘Mais Cidadania’ (More Citizenship) project:** fair for health services, well-being, and quality of life in public squares or street markets. Promoted by Bracell Bahia, the program offers free vaccinations, nutritional guidance, professional counsel for the job market, haircuts, eyebrow design, and environmental education workshops, among others. The project reached 9,600 people, almost double compared to the previous year.
- **Cinema no Campo (Movie in rural areas):** launched in 2014, it provides residents of rural Bahian communities with access to free cinema sessions, with themes related to the reality of these places, and always with the presence of psychologists. In addition to entertainment, there is an opportunity for the company to discuss topics of relevance to communities. 2,486 people participated in 35 sessions, in 34 communities in 13 municipalities in Bahia.
- **Support to the Municipal Theater ‘Adélia Lorenzetti’ in Lençóis Paulista (SP):** 40,000 people benefited from 73 shows of excellent quality in a free of charge theatre.
- **Lençóis Paulista Integrated Literature Festival:** offers to the local population free access to different cultural events (literature, music, cordel poetry, poetry, storytelling, theatre, and dance) in an event lasting eight days. The Festival chose Monteiro Lobato, a writer from Taubaté SP, immortalized by the book ‘Sítio do Pica-Pau Amarelo’ as the 2019 honoree. About 19,000 people attended the event. Bracell is one of the partners of this event.

“My experience with the Bracell volunteer program far exceeded my expectations. I love working as a volunteer, helping others, carrying out actions that benefit communities. I learned to value more my life through what I have experienced in the volunteer program and have more empathy. It is awesome to see the care our volunteers have with the institutions, and it makes a lot of difference in their lives and the communities where they work. I feel very proud, and I realize the corporate value ‘People’ put into practice with this initiative. So when talking about Bracell, what comes to my mind is the word ‘commitment.’”

Débora Tallita Dantas Lima

has been working for six years in the company, in the Institutional Relations and Corporate Social Responsibility area at Bracell Bahia.

VOLUNTEERING

In Bahia, Bracell keeps the Mãos Dadas (Holding Hands) since 2017, a volunteer program that mobilizes employees and their families, channeling their skills, knowledge, and time to help needy communities and charities surrounding the company’s operations. In 2019, 1,109 Bracell employees participated in the initiatives, that benefitted 967 people and 25 institutions at Bahia, in 25 communities. Bracell São Paulo aims to launch its volunteer program in 2020.

Every year in the program’s scope, the Desafio Voluntário (Voluntary Challenge) takes place, where teams of employees employ creativity to promote fundraising actions to be donated to selected institutions. The ‘Mais Ação’ and ‘Paulo Tonucci’ Associations, both located in Camaçari, benefited.

Within the scope of the Mãos Dadas program, other actions include campaigns for donating clothes, toys, and food to the community, as well as to collect blankets and hygiene kits for charitable organizations. It also offers karate and English free classes for the children of employees and outsourced staff who work in the nursery seedlings.

Bracell also carried out the Troca de Saberes (Exchange of Knowledge) action, which encourages company employees to share personal and professional experiences, or some general interest skill, with their co-workers. In meetings that take place during working hours, they voluntarily present topics that are their domain. Seven lectures were given in Bahia. The project will also be taken to Bracell São Paulo.



Our employees during Mãos Dadas volunteering program.

Corporate governance

GRI 102-18



Bracell leadership

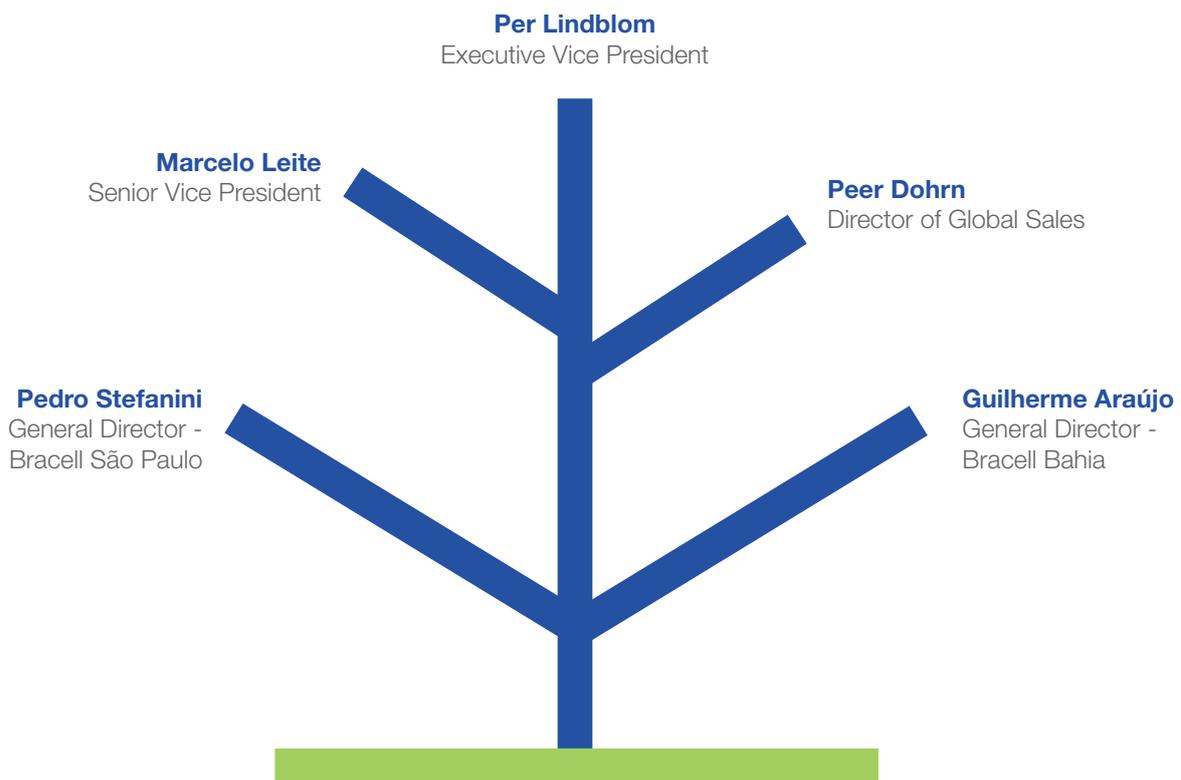
Bracell operates in Brazil in adherence to RGE's T.O.P.I.C.C. Corporate Values, Global Code of Conduct, [Sustainability Framework](#), as well as the 5Cs philosophy of creating value for the Community, for the Country, for the Climate, for our Customers and our Company.

Each of RGE's businesses is maintained independently, with its own management and controls. They comply with the laws and legal

regulations where they conduct their operations and communicate with their stakeholders. The Key Performance Indicators for each company in the group guide all decisions and are set annually.

RGE maintains a Management Board composed of key executives, while the group's businesses, including Bracell, have their structures. Members of the RGE Board are assigned to specific companies in the group to provide support and supervision. The key-business leaders meet every four months to report on the performance of projects and discuss matters of corporate interest.

In Brazil, each Bracell unit maintains a general director, to whom senior managers, managers, and coordinators report.



Ethics and integrity

CODE OF CONDUCT AND CORRUPTION PREVENTION

GRI 103-205, 103|406, 103|412, 103|415, 103|418, 103|419205-2, 206-1, 406-1, 412-2, 412-3

Bracell follows the RGE Global Code of Conduct, which reflects the company's commitment to maintaining ethical and professional practices and to complying with the legal requirements applicable to its business.

The document discusses what the company expects from its employees when dealing with different stakeholders, and describes the do's and don'ts towards topics such as health and safety; bullying, harassment, and violence; personal information, privacy and security; political donations and party activities; sustainability; interest conflicts; competition; purchasing ethics; confidentiality; and virtual security.

In 2019, there was retraining for Bracell São Paulo employees based on the Code of Conduct. At Bracell Bahia, the activity is scheduled for 2020. In both units, the company maintains the practice of presenting and training all new professionals to what it is in the document.

Any disregard for what is described in the Code of Conduct can result in disciplinary action, including the employee's dismissal, apart from possible civil or criminal penalties. The company guides and encourages its staff to report cases of violation of the Code, ensuring non-retaliation against anyone who raises concerns about possible misconduct or who participates in internal investigations. It also ensures the whistleblower's anonymity.

If possible violations of the Code of Conduct are observed, anyone (inside or outside the company) can report the suspicion to the 'Bracell Escuta' (Bracell listens to) channel - available by email (bracell_escuta@bracell.com) and by phone (BA: 0800 006 6012 and SP: 0800 033 3384). There is not a requirement for the individual to identify. All messages are evaluated by the Internal Audit team, which reports directly to the company's board of directors.

Bracell continuously improves its governance, risk management, and compliance practices to make its management procedures and tools even more robust, preventing ethical deviations and harmful business practices from occurring. The company was not the target of legal or administrative actions, nationally or internationally, for unfair competition, corruption, trust and monopoly practices. Nor did it receive significant fines for non-compliance with laws and regulations in the social and economic spheres ([GRI 419-1](#)).

COMMUNICATION CHANNELS WITH BRACELL

GRI 103-2, 413-2

To obtain information about the company, praise, demands or complaints, the population can use the [“Contact” form](#) available on the Bracell website, as well as free telephone channels, available 24 hours a day. The com-

pany also maintains corporate profiles on the social networks Instagram, Facebook, and LinkedIn, and a YouTube channel. In October, Bracell São Paulo’s communication channel was implemented and widely disseminated through social media, cards, and folders, and in relationship visits to communities.

COMPLAINT MECHANISMS

	Bracell São Paulo 0800 709 1490	Bracell Bahia – forestry activities 0800 284 4747	Bracell Bahia – industrial activities ¹ 0800 071 8484
Number of complaints identified through the mechanism	5	59	–
Number of complaints addressed	5	59	–
Number of complaints resolved	5	59	–

¹ The data from the Bracell Escuta, a communication channel for complaints related to possible deviations from the company’s Code of Conduct, were not included in the table. All complaints registered in the year prior to this report (2018) were resolved in 2018.

All contacts made through Bracell’s communication channels are recorded, analysed, and answered by the company. In 2019 there was no record of complaints using the 0800 from Bahia industrial. However, a WhatsApp group called Odor Perception Network was created, and four complaints were made, two of which were valid, and two were not. All were related to odor from the factory and were resolved.

At Bracell Bahia Forestry, the chief complaints registered were neighbours’ complaints regarding dust, complaints to third parties, and property damage. At Bracell São Paulo, they referred to claims from third parties and actions necessary to mitigate the impact of the company’s activities.



Free phonedines available to contact Bracell

IN BAHIA

0800 284 4747
forestry activities

0800 071 8484
industrial activities

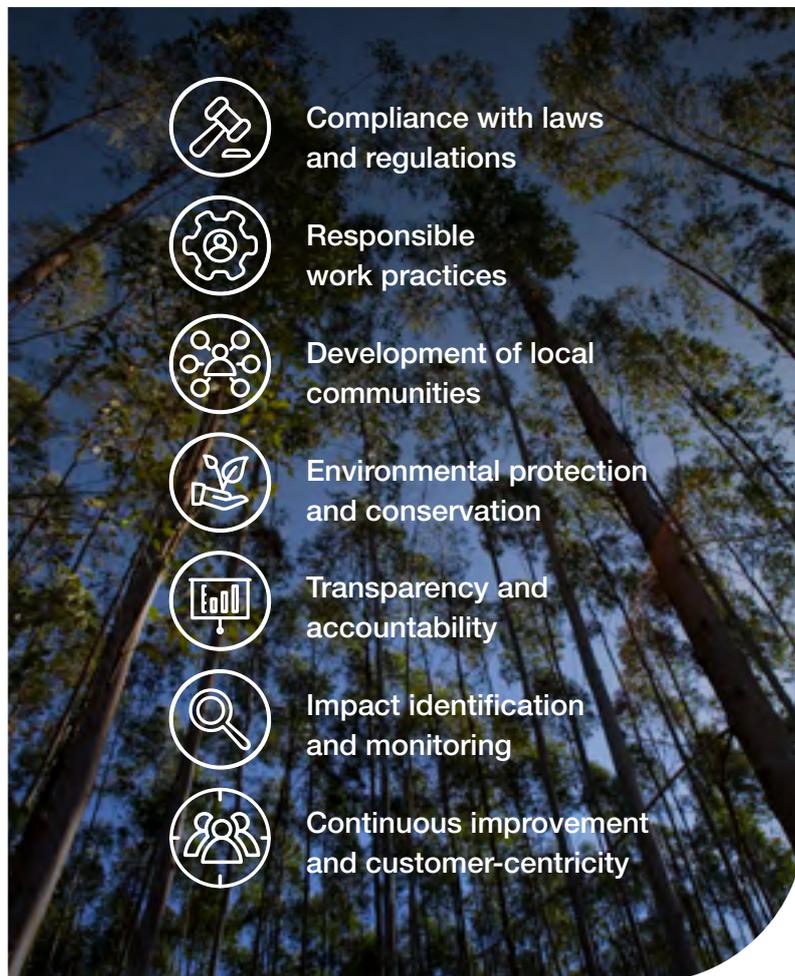
IN SÃO PAULO

0800 709 1490

Integrating Sustainability into the business

BRACELL SUSTAINABILITY POLICY AND STRATEGY

Bracell is committed to a Sustainability Policy (available on the [company's website](#)), based on the RGE's Sustainability Framework (available [here](#)), and the 5Cs business philosophy. It was revised in June 2019, based on a process that took into account the results of a study conducted by an external consultancy in Bahia. The Sustainability Policy is anchored on seven pillars:



STRENGTHENING SUSTAINABILITY GOVERNANCE

(GRI 102-10, 102-18)

In 2019, Bracell's Corporate Affairs, Communications and Sustainability area department restructured with the creation of senior management, who report to the directors of the industrial units in Bahia and São Paulo.

The new portfolio includes Institutional Relations and Social Responsibility management (one for Bahia and one for São Paulo), Sustainability management (serving both states), Digital and Social Media management (serving both units), and management Communication (one for each company unit). Within these structures, there is a team of analysts and experts that totalled at least 27 people.

The main goal of sustainability management is to formulate the company's sustainability strategy in a cooperative and participative manner, scheduled for launch in 2020. The idea is to evaluate internal and external drivers for the construction of a platform that points out the vision of Bracell's sustainability, its strategic drivers, and thematic vectors. The internal drivers are policies, procedures, and interviews with the Bracell's leadership and other RGE companies. The external ones are secondary data, benchmarks in the dissolving pulp sector and other fields. The idea is to enlarge an objective direction aimed at solving medium to long-term socio-environmental problems. For 2020, Bracell's goals are to validate a three-year roadmap of its sustainability plan and join the UN Global Compact.

“We are pleased to launch the Bracell Bahia Sustainability Committee, an essential instrument to reach new heights and be in line with the trends in the dissolving pulp sector. We need to reduce the company’s internal walls, conduct more dialogue and interact more with society and aim to be more attractive to the new generations. The Committee is an excellent forum for us to reflect on topics that are critical to the business in a multidisciplinary way, to move forward in building a Bracell based on lasting and sustainable relationships, and to generate value for stakeholders in the long term.”

*Guilherme Araújo,
Managing Director at Bracell Bahia*

In 2019, the company created its first Sustainability Committee in Bahia. São Paulo’s committee is scheduled to be created in 2020. The new groups will assist Bracell’s board in formulating recommendations regarding investments and guidelines for the construction of an increasingly economically viable, socially responsible, and environmentally friendly company. The Committee’s objective is to study, evaluate, and suggest programs, projects, actions, and positions, interacting with internal areas of the company and external institutions. It will rely upon its members to periodically assess Bracell’s performance concerning sustainability, preparing and reviewing policies, strategies, and actions in the environment, social engagement, relationship with stakeholders, institutional image, innovation, and reputation, among others.

“We have invested time and resources in our company’s continuous improvement. That is only possible when we put in practice our vision to use resources that aggregate value to the community, the country, the climate, the customers, and the company. It is based on this vision that we are collaboratively structuring the Bracell sustainability strategy, through sustainability committees, external consultancy support, and dialogue with employees from different hierarchy positions. The Bracell sustainability platform will drive us where and how we want to go to so that the practices of sustainable development will be even more tangible to all.”

*Sabrina de Branco,
Senior Manager of Corporate Relations,
Communication, and Sustainability*

DIALOGUE AND STAKEHOLDER ENGAGEMENT (GRI 102-13)

Bracell is part of several national and international associations, committees, forums and unions, through which it reinforces dialogue and proximity to its stakeholders. They include:

- **Abaf** (Bahia Association of Forest Based Companies)
- **ABNT** (Brazilian Association of Technical Standards)
- **ABTCP** (Brazilian Technical Association of Pulp and Paper)
- **CETESB's Cellulose and Paper Environmental Chamber**
- **CBHRNI** (Recôncavo Norte and Inhambupe Watershed Committee)
- **Ceptram** (State Council for the Environment)
- **Cofic** (Camaçari Industrial Promotion Committee)
- **Cisnorba** (Interactive Security Council of the Northern Forest District)
- **CONERH** (State Water Resources Council)
- **Management Council of APA Litoral Norte**
- **APA Joanes / Ipitanga Management Council**
- **Management Council of APA do Rio Batalha**
- **Fieb** (Federation of Industries of the State of Bahia)
- **Florestar SP** (Paulista Association of Planted Forest Producers and Suppliers and Consumers)
- **IBA** (Brazilian Tree Industry)
- **Ipef** (Institute for Forestry Research and Studies)
- **SIF** (Society for Forestry Investigations)
- **Sindpapel** (Union of Industries of Paper, Pulp, Cardboard, Wood Pulp for paper and cardboard artifacts in the State of Bahia)
- **CAMCORE** (Global partners for the future of our forests)
- **CONSEG** (Community Security Council) of Esplanada-BA
- **COFIC Security Council** (Camaçari Industrial Promotion Committee), as a participating member
- **CONSENE** (Public Security Council of the Northeast), as a guest member

Supplier management

GRI 102-9, 103-204, 103-206, 103-308, 103I407, 103I408, 103I409, 103-414, 204-1, 308-1, 407-1, 408-1, 409-1, 412-1, 412-3, 414-1, 414-2

PROPORTION OF SPENDING ON LOCAL SUPPLIERS

	Bracell São Paulo	Bracell Bahia
Budget for suppliers (R\$)	R\$ 496,169,215.17 (approximately USD 96 million)	R\$1,100,000,000.00 (approximately USD 213 million)
Amount spent with local suppliers (R\$)	R\$ 469,320,862.53 (approximately USD 91 million)	R\$825,000,000.00 (approximately USD 159 million)
% of budget spent with local suppliers	94,6%	75%

During the year, Bracell acquired more than R\$ 1.5 billion (approximately USD 290 million)¹ in products and services. Of this total, Bahia accounts for more than R\$ 1.1 billion (approximately USD 213 million), and São Paulo for more than R\$ 496 million (approximately USD 96 million).

One of the organization's focus is to give preference to products and services offered in the states where it maintains its units, to contribute to local development. In this sense, on average 85% of the contracts signed by the company were with local partners, 75% in Bahia and 94% in Sao Paulo - an increase of about 9% compared to the previous year.

Bracell strives to maintain a supply chain aligned with its principles and committed to sustainability. For this reason, it requires 100% compliance with labor, social security, occupational health and safety and tax obligations, among others, in the selection of its partners and/or in the course of contracts, maintaining formal procedures to verify compliance with good practices. All these procedures are regulated through a system in which Bracell carries out periodic documentary verification. The procurement department is audited according to the agenda determined by senior management, and the Controllershship area also approves all purchase requisitions in SAP.

¹ | Exchange rate considered the following: R\$ 5.17 foreach USD 1.00 (Brazilian Real to US Dollar).

The company's Code of Conduct contains a chapter dedicated to commercial relations and guidelines regarding conflict of interest, acceptance of gifts, entertainment and hospitality, relationship with business partners, competition, ethics in purchases, financial sanctions, privileged information, and business trips. The document must be signed by the partners for the registration in the company (GRI 205-2).

In the agreements and contracts signed between the company and its business partners, there are also clauses or commitments related to socio-environmental compliance, where the contractor undertakes not to use forced and compulsory labor, that they do not engage in slave or child labor, and the engagement to respecting the right of employees to collective bargaining. Also, the partners undertake not to carry out any discriminatory act and to comply with the rules relating to the environment, health, and safety. (GRI 308-1)

In 2019 the company did not receive any report on issues such as child labor, degrading work conditions or harassment related to its suppliers (GRI 408-1, 409-1). For 2020, Bracell São Paulo's goal is to carry out a program to qualify local suppliers and review supply procurement policies.



Integrated Management System (IMS)

GRI 1031307

Bracell maintains an Integrated Management System, which addresses issues related to the Environment, Quality, Health and Safety at Work, based on an Integrated Management Policy.

The System and its requirements are present at all Bracell units, at meetings for the integration of new employees and also at recycling meetings, under specific demands.

Through objectives and performance indicators, IMS aims to ensure that the company's activities are developed in an environmentally healthy, socially fair, and economically viable way.

The Integrated Management System meets the NBR ISO 9001: 2015, NBR ISO14001: 2015 standards and CERFLOR, and is continuously monitored, to promote its continuous improvement. Its indicators are disclosed to all employees through the communication channels available in the company.

Bracell has IMS Committees comprising directors, managers, and members of designated corporate areas whose objective is to effectively and continuously monitor the system's effectiveness. In São Paulo, 661 documents were revised, and 13 matrices of risks and opportunities for the proposed processes and actions had their effectiveness verified. In July, the management systems implemented and certified at the São Paulo unit became mandatory content in the new employees integration.

At Bahia, 225 different internal procedures were reviewed, in addition to the publication of 131 new documents. A significant revision of the spreadsheets on environmental aspects and impacts was also carried out to improve compliance with the life cycle perspective requirement of ISO 14001: 2015. The mapping of risk and opportunity processes at the operational level, and the forms of control, were also revisited.

Two in-company training sessions were held at Bracell Bahia for IMS managers and facilitators. Conducted by external consultants, the sessions addressed the topic of treatment of non-conformities and accidents. Eight Lean and Kaizen projects were also carried out in the Bahia Forestry unit. Four of them were already concluded in 2019 and allowed the company to save R\$ 3.6 million in the year. The other projects are expected to be completed in 2020. At Bracell Bahia industrial, four Lean projects started in 2019, and another four will be completed in 2020; these programs aim to eliminate waste and improve industrial processes.

Risk mitigation and management

GRI 102-11

Bracell maintains a Risk Management Program (RMP) that uses international methodologies to identify and minimize potential threats to its operations, communities, and the environment. It covers information management, training, equipment, emergency response processes, among other actions.

The company is ISO 9001 (Quality Management) and 14001 (Environmental Management) compliant which includes specific procedures for risk management and operational change such as changes in processes, inputs, systems, and people.

Also, Bracell has an Emergency Service Plan to both units, that encompasses several scenarios of occurrences in its operations.

It details the procedures to be adopted, the communication flows, people, and departments that should be activated, and responsibilities. The scenarios are identified based on the probability of an uncertain event according to the company's history, risk determination worksheets, and in some cases, only considering the severity of an emergency.

The company also has a brigade comprised of 113 employees in São Paulo and 217 in Bahia, with 30 and 83 available during administrative hours, respectively, and the others between areas and shifts.

It is worth mentioning that in Bahia, Bracell participates in risk management within the scope of COFIC - Camaçari Industrial Promotion Committee.

In 2019 Bracell hired an external company to map the principal risks and critical socio-environmental issues through consultations with company leaders and documentary analysis. The purpose is to select elements to be managed and updated annually by a mechanism to be implemented in 2020.



CRISIS PREVENTION AND MANAGEMENT

(GRI 102-11)

Regarding the company's procedures for crisis prevention and management, Bracell's operational teams act on the front line to reduce the possibility of harmful exposure and are obliged to report daily on any potential issue to cause problems.

In case of an adverse event, the Crisis Prevention and Management Committee is activated immediately. Members will then meet periodically to analyse and decide on strategies to address the issue.

In 2019, Bracell hired external consultants to update its manual, and procedures related to the topic, as well as review the composition of the Committees. The task involved discussions with various leaders and directors of the company in both states.

The manual is expected to be completed in 2020. It will serve as a guide to Bracell in addressing critical issues and / or a crisis installed in a timely and organized manner, minimizing potential operation or reputation risks. The document will determine the roles and responsibilities of each area represented in the Bracell Crisis Prevention and Management Committee in the event of adversity, and systematizing information and decision making procedures.

In São Paulo, the company's leading executives attended a media training session. Participants were taught how to manage media interviews as well as how to effectively present on topics relevant to their areas. Next year, similar training is expected in Bahia.

For 2020, the company also aims to disseminate the contents of the new manual (crisis concepts, scenarios, and triggers, roles, and responsibilities) and conduct a simulated exercise with each Crisis Prevention and Management Committee, in both São Paulo and Bahia.

Bracell started to update its crisis prevention and management manual, and initiate a committee in São Paulo related to the topic.



Responsible and sustainable production

Forestry activities

GRI 304-3

The forestry activities must supply Bracell's industrial units with high-quality eucalyptus at competitive costs, ensuring the business' economic viability. Concurrently, the company watches over the plantations' social and environmental aspects, from which it extracts the raw material for cellulose production.

Bracell attests and is committed to not operate on peat soils, an unusual category in Brazilian territory¹. The company only uses previously planted areas with other crops

¹ Surface mapping, organic matter and water stocks in peatlands of the Serra do Espinhaço meridional - Brazil. Rev. Bras. Ciênc. Solo vol.37 no.5 Viçosa Sept./Oct. 2013. Available at: <https://www.scielo.br/scielo.php?script=sci_arttext&pid=S0100-06832013000500004>. Accessed on em 08/31/2020.

(therefore, anthropized areas) for eucalyptus planting and is totally against deforestation and burning, a guideline that is part of its [Sustainability Policy](#) and that is also applied to its chain of supplies.

More than 30% of the Bracell's managed lands are areas of environmental conservation (native vegetation, legal reserve, and permanent conservation). The company's eucalyptus planting are located as follows: in Bahia - covering 31 municipalities in the North and Agreste regions of the state and Recôncavo Baiano; in São Paulo - in 72 municipalities in the Midwest. Bracell also operates through forestry partnerships with local farmers (leasing).

The soil use information for Bracell properties is georeferenced and plotted on maps, including the Permanent Preservation Areas, Legal Reserve, infrastructure, water resources, and other uses, as well as the area of occupation by the eucalyptus culture. Cartography activities also cover the mapping of areas of unique cultural and social significance.



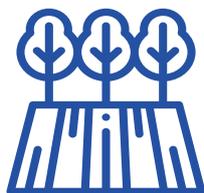
FORESTRY PLANNING AND MANAGEMENT

GRI 102-11

Bracell's Forestry Planning is based on the analysis and simulation of scenarios to ensure the adequate supplying of eucalyptus plantations to the mills, considering potential restrictions, whether operational, environmental, social, or economic.

The efficient use and management of forest resources require knowledge of the forests' quantitative and qualitative characteristics and the continuous monitoring of their productivity (m³ / ha/year). This know-how comes from forest inventories, carried-out at six and twelve months and then annually until harvest.

Bracell has long- and short-term plans. Long-term plans project for the next 21 years. Once approved, it is broken down into short-term (two-year horizon) plans, at the operational level, which includes the regulation of wood stocks and the sequencing of operations through silviculture, including seedling nursery, harvesting and removal, and transportation of wood. Finally, microplanning is conducted by a multidisciplinary team coordinated by the Forestry Planning management. Our specialists visit each farm in advance, to ensure the excellence in our operations (improvement of roads, assessment and mitigation of impacts with communities, etc).



More than 30%
of the Bracell's managed lands are areas
of environmental conservation

In Bahia, an important event was the decision to discontinue planting in 12,000 hectares¹ under Bracell's management, located in water-stressed regions. Bracell chose to migrate its operations to new areas with greater aptitude for eucalyptus cultivation.

The year was also marked by the revision of the cartographic base at Bracell Bahia, to improve its environmental management capabilities, such as the precise identification of Permanent Preservation Areas and the use of the most conserved areas as Legal Reserves.

In 2019, at Bracell São Paulo, with the expansion of the forestry area, there was significant growth in the pace of activities due to the substantial increase in the area, people and data to be managed, besides greater system integration and automation.

¹ One hectare is the same as 10,000 square metres.

The soil use information for Bracell properties is georeferenced and plotted on maps, including the Permanent Preservation Areas, Legal Reserve, infrastructure, water resources, and other uses, as well as the area of occupation by the eucalyptus culture. Cartography activities also cover the mapping of areas of unique cultural and social significance.



Road construction and maintenance

GRI 203-1, 413-2

When opening new roads and improving the existing ones, care is exercised to minimize soil erosion and potential environmental and social impacts.

Roads for operations are planned to benefit forest plantations, protection and fire fighting, and maintenance logistics. In the case of public roads, Bracell’s protocol is to carry out improvement actions before and after its activities, leaving the road with the right conditions, especially for the communities that make use of them.

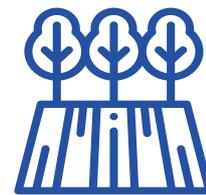
To transport all the wood harvested, Bahia invested R\$ 13.4 million (USD 2,591,876) in the reconstruction of forest roads and R\$ 4.2 million (USD 812,379) in the maintenance of the existing ones. The resources revitalized and/or reconstructed 894 kilometres in the year. In São Paulo, R\$ 3.1 million (USD 599,613) were invested in the maintenance of roads, for the wood transportation to the mill.

Seedling nursery

Bracell maintains two seedling nurseries in Bahia (in Entre Rios and Inhambupe) and two in São Paulo (Lençóis Paulista and Borebi) to produce seedlings for its forests.

In Bahia, the company’s capacity for nurseries was 27 million seedlings/year, reaching the mark of 26 million produced 36.2% more than in the previous year. Of this total, 34% (9 million) went to Bracell’s operations in São Paulo.

A good practice in the seedlings nursery is collecting rainwater through retractable plastic roofs. The collected water is channelled to cisterns and can be used to meet the different phases of the process. The entire cycle of seedling production and storage takes place on suspended greenhouse benches, reducing the incidence of pests and diseases and minimizing the need for pesticides. Hot water sterilizes trays and

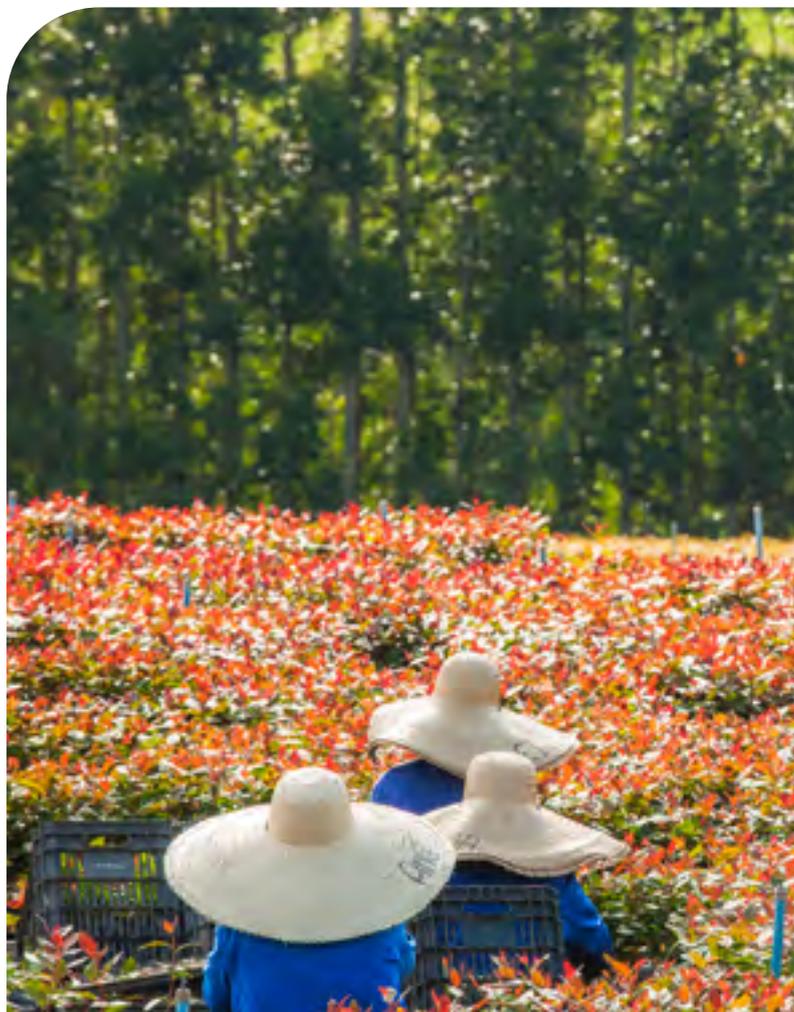


40.3 million
seedlings were produced

tubes, avoiding chemicals. The transport of seedlings is made through a system of rolling tables with no need for tractors and gasoline-powered quadricycles.

In addition to environmental gains, the suspended greenhouse bench system and the rolling table system allow employees' adequate working conditions, eliminating the need for squats and displacement to the individual transport of trays. The operations take place mostly in areas protected from rain (sheds or retractable roofs) and sun (huts, umbrellas, or aluminium screens).

The São Paulo Nurseries reached the mark of 14.35 million of seedlings produced in 2019. In 2020, a modern nursery is planned, very close to the Lençóis Paulista mill, with a production capacity of 55 million seedlings/year.



“The nursery is the first step towards the formation of a proper forest, and to obtain good seedlings, we know that the secret is watching over the people who take care of the seedlings. Today, in my sector alone, we employ 380 people directly and another 60 service suppliers. They live in 11 different communities, which gives us excellent regional coverage. We have people who started as forestry workers and now occupy positions of monitor, foreman, supervisor, among others. When the growth is for the whole team, the result is more solid and reliable.”

Mauricio Prieto

has worked at the company since 2014, at Bracell Bahia Nurseries.

Forestry Partnership Program

In Bracell's Partnership Program, landowners of already operational farmers provide the land, and Bracell, reinforcing its commitment with forest management guidelines, assumes all costs of operating and maintaining forests. Producers also have the support to plan the use of the soil following environmental legislation.

In this partnership, part of the volume of wood produced belongs to the land owner, and the company guarantees to purchase it at the market price. The percentage corresponding to the producer's participation in the partnership is defined at the contract signing date based on technical and economic criteria, taking into account the characteristics and the productive potential of each property.

It is necessary to meet a series of prerequisites to adhere to the program, such as right property documentation, satisfactory productive potential, a mechanizable area, commitment to not harvesting before six years, and compliance with the environmental legislation. All of these aspects are evaluated through meetings of Bracell representatives with the farm owners, farm visits, analysis of the property's documentation, topographic measurement, environmental legalization, assessment of Rural Environment Register (in Portuguese, Cadastro Ambiental Rural - CAR) and, finally, contract signing.

Anticipating the need to expand its forest area to meet the demands of Project Star, Bracell launched new communication channels for producers in the region of Lençóis Paulista/SP (within a radius of up to 120 km from the mill). The farm owners may find information about the Forestry Partnership Program in those channels. A website (www.cultiveeucalipto.com.br) was created, and specific communication channels were made available for answering to interested parties to make business with the company, such as the telephone number 0800 006 24 22.

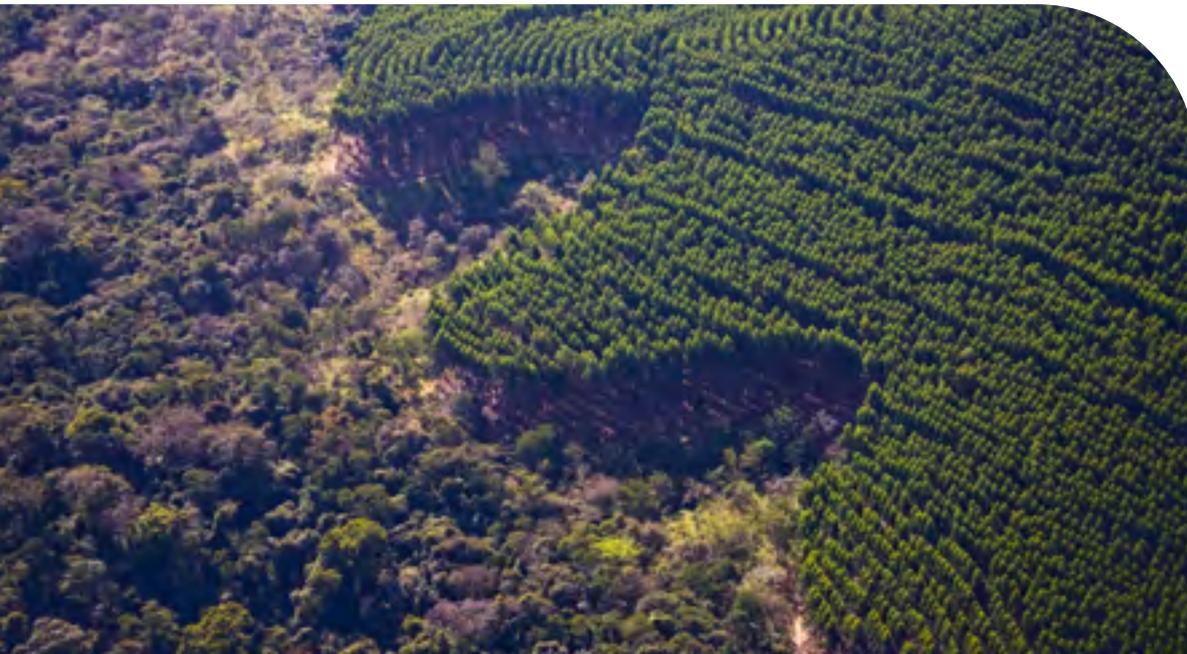
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RESEARCH & DEVELOPMENT

In 2019, Bracell started a process of organizational restructuring of the Research & Development area in both units, in order to gain strength and guarantee the sustainability of forest production, increase in productivity and product quality, in addition to long-term competitiveness.

Forestry R&D works to promote the classic genetic improvement of eucalyptus and the development of best forest management practices and technologies, in order to

guarantee maximum productivity and the best quality of wood for pulp production, at the lowest cost and with minimal environmental impact. The development of clones more adapted to the regions where Bracell operates, and the adoption of correct cultivation methods, from soil preparation and fertilization of plantations, to the integrated control of pests, diseases and weeds, aim to maximize the productivity of consequently carbon sequestration, and reduce the need for chemical pesticides. Forestry operations follow strict protocols to ensure the best expression of these genetic materials in the field, through good practices, resource optimization and respect for the environment.



GOOD PRACTICES IN FORESTRY AND INDUSTRIAL OPERATIONS

Minimum soil cultivation, mosaic planting with native forests, maintenance of post-harvest waste (bark, branches, and leaves), and Integrated Pest and Disease Management (IPDM), are examples of Bracell best practices in sustainable forest management. The company shares the best-adapted solutions to all associated producers through the Partnership Program.

In the case of pests and diseases, Bracell has as its basic premise the maintenance of environmental balance, adopting actions that favor natural control, through genetic resistance and the use of natural enemies. The last alternative is chemical control, adopted when the other alternatives, isolated or associated, are not effective. Thus, Bracell is committed to progressively reducing the use of pesticides. The use of fertilizers is also minimized by the maintenance of forest harvest residues in the field, favoring the increase of organic matter contents in the soil.



In São Paulo, the key projects included:

- Releasing a Forest Technical Recommendations Manual, with all the guidelines on how to establish and conduct eucalyptus plantations;
- Elaborating a classic genetic improvement strategy, for the medium and long term;
- Started mapping the soils of the areas belonging to Bracell, a job that should take two to three years;
- Developing the first version of the climatic zoning for the regions where the company operates;
- Identifying a portfolio of research projects to be developed in the coming years.

In Bahia, 38 research projects were conducted in 65 experiments, in the seedlings nursery and in the field, in the great Sciences of Entomology, Phytopathology, Forest Genetic Improvement, Biotechnology, Soils and Plant Nutrition, Forest Management and Quality.

The expansion of the controlled pollination park at Fazenda Salgado, in Inhambupe (BA) allowed us to accelerate the production of raw materials aimed at the output of specialties. Besides, the use of near-infrared (NIR) technology to search for new materials proved to be effective, even in the calibration phase. Thus, 11 new materials were made available for vegetative multiplication, for planting in the test of new genetic materials and keep prospecting to meet the specific demands of cellulose quality for external customers.

The company released 13.4 million pest-controlling insects, predators, and parasites in the field, an increase of more than 100% to 2018 - providing an estimated pesticide spraying reduction area of 8.9 thousand hectares. Pest outbreaks succeeds according to several variables, such as weather conditions and low level of natural enemies in the forest. Rearing and releasing natural enemies is a sustainable and environment-friendly strategy. Also, in Bahia, a modern Phytopathology laboratory was incorporated into the Forestry Pest laboratory, enabling the Forestry Protection area to act more quickly and effectively; and also a tissue culture laboratory, which aims to produce seedlings in a controlled environment, aiming at less contamination by fungi and bacteria, and greater vigor.

To overcome the challenges of 2020, a robust experimental plan was designed for the execution of the project portfolio in Bahia. Twenty-five research projects will be developed, divided into 44 experiments, emphasizing: conservationist practices in soil management; biological control of forest pests and diseases; development of new genetic materials with clonal cleaning, from the culture of tissues; molecular diagnosis of plant diseases; rational forest management from the calibration of fertilizer sources in the nursery and in the field; and rational use of pesticides.

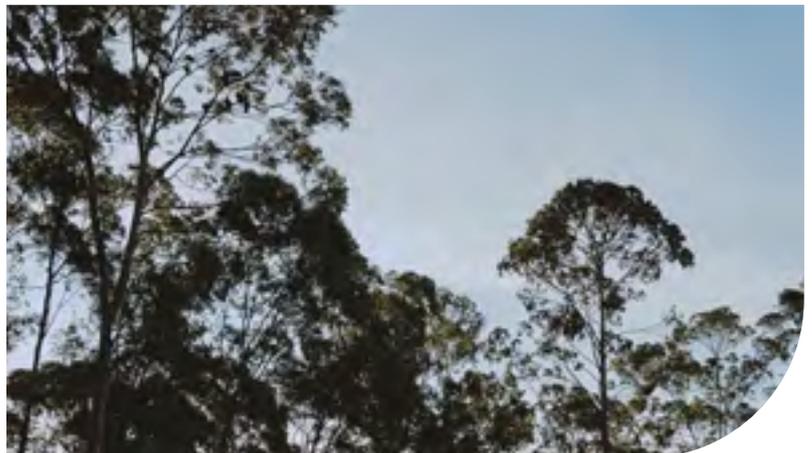
Several educational institutions and research centers in Brazil and abroad contribute to Bracell's forestry research programs. These institutions include SIF (Forestry Research Society), IPEF (Forestry Studies and Research Institute), USP (University of São Paulo), Unesp (São Paulo State University Júlio de Mesquita Filho), UFV (Federal University of Viçosa), UFS (Federal University of Sergipe), UFRB (Federal University of Recôncavo da Bahia), UFLA (Federal University of Lavras), Embrapa (Brazilian Agricultural Research Corporation), CIRAD (Centre de Coopération Internationale en Recherche Agronomique pour le Développement), from France, NCSU (North Carolina State University), FPC (Forest Productivity Cooperative), from the United States and, more recently, scientific partnership with the University of Pretoria, South Africa.

The Industrial R&D area seeks to increase productivity with excellence in product quality to meet the needs of its customers in different industrial segments. To this end, it uses the best industrial technologies available, in addition to optimizing factory production and identifying new product opportunities.

Highlights in R&D included:

- Bracell developed a portfolio of research projects to be carried-out in the coming years in synergy with the industrial R&D areas of the other business units in the Fiber Division of the RGE group;
- Several process optimizations at different stages of production led to an increase in industry productivity coupled with lower cost;
- São Paulo unit carried out a mapping of wood quality to suit the products of its new production line; expanded the use of mathematical modeling through NIR spectroscopy to predict wood and pulp properties, resulting in greater analytical representativeness, faster results and reduced costs; and started work on the new laboratory dedicated to R&D activities, in addition to having acquired the necessary equipment.

The Industrial R&D area is committed to help customers make better use of Bracell's products. The team hold ongoing technical meetings to exchange samples and test methods. With this successful cooperative approach several kinds of customized products have been developed, bringing Bracell's unique vision of eucalyptus cellulose raw material to meet its customers' increasingly demanding and stringent requirements.



Use of water and energy, and generation of effluents and waste

WATER

GRI 1031303, 303-1, 303-3

The use of water by Bracell's forestry and industrial operations is carefully monitored and controlled. All interference in artesian wells, rivers, streams, and riverside areas complies with procedures authorized, appro-

ved by environmental agencies. Bracell does not capture water in water-stressed areas, as classified by GRI.

The company monitors watersheds in all regions where it operates, to know the water conditions of each area. It also acts in the protection of springs and water in its properties. The restoration of native forest from legal reserves and permanent preservation areas is a way to preserve the availability of water resources.

At Bracell São Paulo, the plant is supplied by five deep artesian wells. In 2019, 6,194,388 m³ were captured at the unit, an increase of 5.1% from the previous period. The 2019 target of 23 m³ per ton produced was not met. Demand increased due to two factors: the supply of water for the expansion of the forest nursery and the increase in the number of employees consuming it.

TOTAL WATER WITHDRAWAL VOLUME, BY SOURCE (m³)

UNIT	SOURCE	2019
Bracell São Paulo Industrial (Lençóis Paulista/SP)		6,194,388 m ³
Bracell São Paulo Forestry (Lençóis Paulista)		107,502 m ³
Bracell Bahia Industrial (Camaçari/BA)	Groundwater (well)	14,900,187 m ³
Bracell Bahia Forestry (Entre Rios and Inhambupe seedlings nursery, and Alagoinhas' office)		980,781.9 m ³
		8,750.4 m ³

In addition to orientate employees in responsible water use and consumption, the company assigns a group to monitor its use to quickly detect any leaks and other failures, that could cause waste.

In São Paulo's forestry activities there are eight groundwater sources, seven at farm headquarters, and one at the seedling nursery. In 2019, 107,502 m³ of water were withdrawn, with 4,753 m³ referring to the farm artesian wells, and 102,749 m³ used in the seedling nursery.

For 2020, Bracell São Paulo will focus on improving water intake for the industrial process of up to 23m³ / TSA and to improve the management of water use, differentiating the data on industrial use from the drinking water consumption. In the forestry unit, the water reuse of the seedling nursery will be evaluated to improve the management of relative consumption in the nursery and the farm artesian wells.

For the mill supply in Bahia, Bracell has 11 granted artesian wells, two in the plant, and nine in the municipalities of Dias D'Avila and Camaçari. The water use in the industrial area grew 4.5% over the previous year. As a result, the average monthly intake was 32.8 m³ per ton produced, not reaching the target of 30 m³.

The use of water resources at Bracell Bahia is discussed in daily meetings. There are specific procedures to maintain water quality in treatment and disposal. Further, Bracell participates in the groundwater management plan for the Camaçari Industrial Pole, managed by CETREL (public agency).

In forestry activities in Bahia, the use of water occurs primarily in the production of eucalyptus seedlings, in the construction and maintenance of roads, in road sprinkling in communities, in research, and in the washing of harvesting machines. The company monitors water extraction to the granted limits.

RECYCLED AND REUSED WATER (m³)

UNIT	FONTE	2019
Bracell São Paulo (Lençóis Paulista/SP)	Total volume of water withdrawal	6,194,388 m ³
	Volume of water reused / recycled	2,514,824 m ³
	Percentage of water recycled and reused	41%
Bracell Bahia (Camaçari/BA)	Total volume of water withdrawal	14,900,187 m ³
	Volume of water reused / recycled	1,755,120 m ³
	Percentage of water recycled and reused	12%

In both Bracell industrial units, water reuse and circuit closing practices are used, reducing the volume of water used in the production process. Bracell São Paulo, for example, has a water reuse percentage of 41% - in 2008, it implemented technological options that enabled a great advance in this direction.

EFFLUENTS

GRI 1031303, 303-2, 303-4

The industrial process generates effluents that receive primary treatment at the mill before being sent to Effluent Treatment Stations.

Bracell continuously analyses water quality in areas where the company has an exclusive influence, such as rivers, groundwater (artesian wells), and seedling nurseries. It also monitors the effluents generated by the water and oil separator box at the washing ramp, based on the parameters of the Brazilian Environment Council (Conama 357/2005) and State Decree 8,468 / 1976 in São Paulo, and to comply with the plant standards and the Camaçari Industrial Promotion Committee (Cofic), in Bahia.

ORIGIN AND TOTAL VOLUME OF WATER DISCHARGED

Total volume of water discharged, by destination (m ³), in 2019	Bracell São Paulo (Lençóis Paulista/SP)	Bracell Bahia (Camaçari/BA)
Origin: Groundwater	4,990,994 m ³ (fresh water, ≤1000 mg / l of total dissolved solids)	12,394,032 m ^t (fresh water, ≤1000 mg / l of total dissolved solids)

At the São Paulo plant, the sanitary effluents are treated and sent to the Lençóis River. The water, captured in artesian wells, returns to the environment in two ways: as liquid effluent destined for Effluent Treatment Stations and through evaporation in the cooling towers, in the chimneys of the recovery boiler, in the cellulose drying machines and the lime ovens. In 2019 there was a more significant discharge due to a higher amount of water captured and dissolving pulp produced (+ 3.34%). The goal for 2020 is to keep the release of effluents below 20 m³ / TSA (below 5,233,880 m³).

The increase in Bracell Bahia's effluent disposal values - 5.5% compared to the previous period - relates to challenges faced, including the product quality target (requiring more raw water), unscheduled plant shutdowns and problems with pumps in the effluent recovery wells.

Forestry activities at both Bracell units result in a small volume of effluents in the nurseries. The water leftover from the plant irrigation process supports the nutrition of the side crops of the seedling nursery, forming a protective belt.

There were four events of non-compliance with liquid effluents above the limits established by the effluent treatment concessionaire (Cetrel); no such incident has been reported at Bracell São Paulo.

WASTE

GRI 1031306, 306-2

Bracell promotes its collaborator's awareness regarding waste management, through Daily Safety Dialogues and special events, such as Environment Week. The company's objective is reducing the production of residues and, at the same time, stimulating recycling and/or reuse of them.

Bracell SP fully complies with the National Solid Waste Policy and follows the concept of zero landfills at the plant. Since 2009, when a biomass boiler was introduced, the unit has set more efficient processes to eliminate any forestry residue out of the plant. Before, materials such as bark and wood chips were sent to a supplier, responsible for treatment and chipping. Since the installation of a chipper, the wood that arrives is separated, washed to remove sand, and fractionated. The equipment allows, in a single operation, to avoid the generation of external waste and to convert it into steam, a source of electrical energy.

Bracell São Paulo also installed the sand recovery project to minimize solid waste from the biomass boiler, recovering 70% (8.5 t / day). It resulted in savings in the cost of the ton of the product and a reduction in the movement of buckets for its removal.

At the São Paulo plant, Bracell reduced cafeteria waste. The goal was to reach 50ml per meal / average year, and, at the end of 2019, it reached 30ml per meal / average year.

At the Bahia industrial unit, the company also follows the legislation and maintains solid waste management plans and specific procedures for each area. The objective is to reduce waste generation and find a new destination for the sustainable disposal of materials. The company worked to minimize the amount of waste destined for industrial landfill, which fell by 25%. One of the highlights of the year was a contract with a company from the Camaçari Industrial Pole, which started to use 4,000 m³ / month of bark as biomass in its process.

The residues from the forestry operation in Bahia are transported and stored at the Waste Storage Centers, located at the Central Office in Alagoinhas and the Quatis (Entre Rios) and Salgado (Inhambupe) farms. In 2019, the goal of reducing the generation of class I waste (hazardous waste) by 20% compared to 2018 was reached - the decrease was 21.2%. For 2020, the goal is a new diminish, now by 5%, from 2019 levels (GRI 306-4).

The transportation of hazardous waste (Class I) is carried out at all Bracell units following strict procedures for correct packaging, internal and external transport, and final destination. Bracell does not treat, import, or export hazardous waste (GRI 306-4).

For 2020, Bracell São Paulo scheduled a campaign to enhance the selective collection process, promoting life stories of people who work with segregated materials and make a living.

DESTINATION OF HAZARDOUS WASTE (CLASS I) AND NON-HAZARDOUS (CLASS II – A NON-INERT, AND B INERT) WASTE

Origin	Material	Classification	Volume in 2019	Destination
Bracell Bahia Florestal (Alagoinhas/BA)	Fluorescent lamps	Class I	103 units	Shipped to a licensed company - decontamination
	Pesticide packaging	Class I	3,437 drums 19,626 packages	Shipped to the Association of Agrochemicals Resellers of Feira de Santana Region (Ardarfs) – recycling
	Paperboard	Class II A	1.4 tons	Shipped to the Collectors and Recyclers of Alagoinhas – (Coral) Cooperative – recycling
	Plastic	Class II A	1.5 tons	
	Tires	Class II B	4.2 tons	Shipped to a licensed company – recycling
	Lubricant oil	Class I	15.9 tons	Sold – refining
	Scrap	Class II B	38.56 tons	Sold – recycling
	Common waste	Class II A	29.99 tons	Shipped to a licensed and controlled Landfill
	Contaminated Soil	Class I	4.20 tons	Shipped to a licensed company – co-processing
	Contaminated items – miscellaneous	Class I	11.94 tons	
	Oil filters	Class I	7.07 tons	
	Contaminated Hoses	Class I	14.58 tons	
Bracell Bahia (Camaçari/BA)	Bark, sawdust, and others (from the woodyard)	Class II	60,145 tons	Sold (biomass for power generation, recovery of degraded areas and industrial landfill) - bark, sawdust and yard waste
	Sludge and screen from ETE (Effluent Treatment Plant)	Class II	28,832 tons	Sold (primary fibers for paper mills and recyclers; fertilizer and biomass for power generation and industrial landfill)
	Lime rejects from the recovery process	Class II	1,458 tons	Donation to Cetrel (Treatment of liquid waste and industrial waste) from the Camaçari Industrial Hub, to correct pH of wastewater
	Grits, dregs, and mud from the recovery process	Class II	53,977 tons	Grits: industrial waste landfill Dregs: industrial waste landfill and organic fertilizer

DESTINATION OF HAZARDOUS WASTE (CLASS I) AND NON-HAZARDOUS (CLASS II – A NON-INERT, AND B INERT) WASTE

Origin	Material	Classification	Volume in 2019	Destination
Bracell Bahia Industrial (Camaçari/BA)	Knots and tailings from the cellulose pulp purification process	Class II	18,407 tons	Commercialized with companies for the recovery of degraded areas, stabilization of slopes and embankments with the use of hydrosowing technique, manufacture of low quality paper/cardboard, manufacture of fiber cement tiles, in addition to the use of composting waste to obtain organic compounds
	Metal (iron / metal shavings from the production process)	Class II	1,353 tons	Sold (recycling)
	Plastic (non-industrial)	Class II	35 tons	Sold (recycling)
	Paperboard (non-industrial)	Class II	332 tons	Sold (recycling)
	Fluorescent lamps	Class I	3,176 units	Treated inside Bracell's facilities with the hiring of a specialized company that performs on-site removal of mercury vapor, collection of iron nozzles and disposal of decontaminated glass (recycling)
	Batteries	Class II	1.92 tons	Shipped to a licensed company
	Used lubricant oil	Class I	16.037 liters	Sold to used lubricating oil re-refining company, for later sale
	1,000 liter tanks	Class I	125 units	Marketed to a company of used lubricant oil re-refining, for later sale
	Healthcare waste	Class I	0.04 tons	Marketed to companies that reuse this material to store various liquid inputs
	Drums / bigbags containing contaminated material for co-processing	Class I	79 units	Forwarded to a company that carries out the process of reducing granulometry, formation of the energy blend and destination for cement industries as an energy source or raw material for the cement production process
Empty and decontaminated drums	Class I	492 units	Shipped to a licensed company	

DESTINATION OF HAZARDOUS WASTE (CLASS I) AND NON-HAZARDOUS (CLASS II – A NON-INERT, AND B INERT) WASTE

Origin	Material	Classification	Volume in 2019	Destination
Bracell São Paulo (Lençóis Paulista/SP)	Lubrificant oil	Class I	24,240 liters	Shipped to licensed company for re-refining
	Light ashes from the precipitator	Class II	2,154	Used as soil corrector
	Waste from outpatient care	Class I	15 kg	Shipped to licensed company for treatment and disposal
	Tires	Class II	467 units	Shipped to a licensed company for recycling
	Cooking oil	Class I	115 liters	Shipped to a licensed company for recycling
	Grits, dregs, mud, and lime rejects from the recovery process	Class II	4,750 tons	Used as soil corrector
	Ashes from the power boiler	Class II	4,868 tons	Used as soil corrector
	Effluent Treatment Plant sludge	Class II	1,200 tons	Used as soil corrector
	Carbon steel scrap	Class II	190.18 tons	Shipped to a licensed company for recycling
	Stainless steel Scrap	Class II	6.68 tons	Shipped to a licensed company for recycling
	Waste - office supplies	Class II	196.9 kg	Shipped to a licensed company for recycling
	Glass-wool and fiberglass	Class II	14.9 tons	Shipped to licensed industrial landfill
	Canteen waste	Class II	23,105 liters	Shipped to licensed industrial landfill
	Recyclable waste	Class II	6.86 tons	Shipped to the Association of People with Disabilities of Lençóis Paulista (Adeflip)
Bracell São Paulo – Forestry activities (Lençóis Paulista/SP)	Empty agricultural products packaging	Clase II	16,862 kg	Shipped to the Association of Agricultural Input Distributors of the State of São Paulo (Adiaesp) collection station in São Manuel
	Contaminated waste	Classe I	560 kg	Shipped to co-processing in a licensed company

ENERGY

GRI 1031302, 302-1

Bracell is self-sufficient in energy both in São Paulo and Bahia’s industrial units. Energy is generated from renewable sources, such as wood components and other substances that originated in the dissolving pulp’s production process, including black liquor.

Bracell São Paulo maintains the Internal Energy Conservation Commission, comprised of representatives from the leading energy-consuming areas, who meet monthly to create strategies for raising awareness about its use and debating costs. Additionally, the company has the support of an external consultancy to aid its energy management - they are Bracell’s representatives in the energy register of the Brazilian Electricity Trading Chamber.

At Bracell São Paulo, total consumption was 177,547 MWh. The surplus generated (64,412 MWh in 2019) was sold to the open market. The average consumption target for the year,

of 678.6 kWh / TSA, was not reached due to the month of General Downtime, mainly due to the delay in returning to activities and shutdowns or significant process fluctuations. A unit for recirculating gas from the power boiler was installed in the plant to generate more uniform energy, resulting in fewer energy purchases on the free market. More than R\$ 2 million savings observed over 14 months (GRI 302-4).

For 2020, in São Paulo, the energy consumption target was changed to 685 kWh / TSA, since the pulp production goals are more aggressive. For clarity purposes, the company intends to separate the energy consumption from the current facilities from Project Star consumption.

In Bahia, the total energy generated at the Industrial unit was 432,010 MWh, and 429,062 MWh were consumed. Despite self-sufficiency, the company also uses, beyond the burning of black liquor, natural gas and liquefied petroleum gas. In the Forestry unit, 1,674 MWh were purchased from the concessionaire.

GENERATION, CONSUMPTION, PURCHASE, AND SELLING OF ELECTRICAL ENERGY AT THE MILLS (MWH)

2019	Bracell São Paulo (Lençóis Paulista/SP)	Bracell Bahia Industrial (Camaçari/BA)	Bracell Bahia Forestry (Alagoinhas/BA)
Purchased energy	3,631.19	33,335	1,616
Consumed energy	177,547.64	429,062	-
Generated energy	238,328.83	432,010	-
Sold energy	64,412.38	36,283	-

São Paulo data refer only to industrial activity. Bracell Bahia Forestry refers to: head office, SETEC and Salgado and Quatis farms (nurseries).

The mills’ boiler generates energy that meets the plant’s demand, and there is still a surplus left, which is sold to the national network or companies in the regional industrial pole. If the boiler stops working (as in usually for maintenance reasons), Bracell consumes the system directly from national grid (concessionaires), as some processes cannot stop.

Certifications

GRI 102-12

Bracell has 2019 certifications that attest to the quality of its products and how operations and manufacturing process meet high standards of health, safety, quality, environment, and social responsibility.

The certifications include:

- **Cerflor/PEFC** – Cerflor / PEFC - a Brazilian certification internationally recognized by the Program for the Endorsement of Forest Certification (PEFC), focused on sustainable forest management. It indicates the institution complies with environmental, social, and economic requirements that make up CERFLOR's five principles. Its standards were developed by the Special Committee for Forest Stewardship Studies (CEE) and are integrated with the Brazilian Association of Technical Standards (ABNT) and the Brazilian Institute of Metrology, Quality, and Technology (Inmetro). The certificate is applied, in the case of Bracell Bahia and São Paulo, for the responsible forest management (NBR 14789: 2012) and for the chain of custody of wood (NBR 14790: 2014). 100% of the wood used in the pulp production process comes from certified forests or sources controlled by PEFC, which ensures the traceability of 100% of the wood used in pulp production processes from the source to the customer.
- **Management Certifications** - Bracell is ISO 14001: 2015 (Environmental Management System) certified for its forestry and industrial activities at Bahia and industrial activities at São Paulo. It is also certified by ISO 9001: 2015 (Quality Management System) for all of its industrial operations in Brazil.
- **FSC** – an independent, non-governmental, non-profit organization created to promote responsible forest management. The FSC seal recognizes environmentally sound, socially beneficial and economically viable forest management, and identifies tools and resources that support positive and lasting change in forests and the people who inhabit it. Having its forest management and chain of custody certified since 2006, Bracell SP certifies to society that it uses natural resources properly and is committed to the non-predatory exploitation of forests.
- **Halal** – attests that the processes of production, storage, and commercialization of dissolving pulp have been evaluated and recognized by an Islamic organization and can serve the Muslim consumer market. It applies to Bahia.
- **Isega** – a German agency, certifies the product can be used by the industry serving the food sector, and is not harmful to consumers' health. It respects the parameters of the United States Department of Health and Human Services (FDA) and the German Federal Institute of Risk Assessment (BfR). It applies to Bahia and São Paulo.
- **ABNT NBR ISO-IEC 17025** – São Paulo is ABNT NBR ISO-IEC 17025 accredited for several environmental analyses of water and effluents. It aims to internationally standardize the testing processes performed in testing and calibration laboratories. It demonstrates the high reliability of the results of the analysis performed by the company.
- **Kosher** – It certifies that the products manufactured at the Bracell Bahia obey the specific rules that govern the orthodox Jewish diet.

In 2019, Bracell Bahia Forestry underwent a Cerflor recertification process for its forest management and ISO 14001. Renewal of certificates with zero open non-conformities was recommended. The area also carried out two complete internal audits (covering all areas), and three additional audits in Silviculture, Harvesting and Forest Logistics, based on the Cerflor Manejo Florestal and ISO 14001 standards.

In the same Forestry unit, all processes and activities related to certifications are managed by a specialized team and supported by the 'Elo de Facilitadores' Program. It promotes the performance of employees of different departments in the role of multipliers and internal auditors. The program held 58 inspections, identifying 39 deviations (duly corrected) and 97 improvements were implemented. In the same period, the facilitators received three pieces of training to improve their knowledge of certifications and tools for continuous improvement. It is important to highlight that in this program, employees are encouraged to propose improvements in the company's processes (a task which is also part of employee evaluation). Every year, the performance of the facilitators is assessed and those who obtain the highest score are awarded.

In the Industrial area of Bracell Bahia, 25 internal audits were carried out in two half-yearly cycles, covering all processes that are part of the scope of ISO 9001 and ISO 14001, and 12 chains of custody inspections. The deviations found were treated employing records in non-conformity reports, with the elimination of their root cause. The ISO 9001, ISO 14001, and Cerflor certificates underwent an external renewal audit in 2019.

In São Paulo's Forestry unit, the forest management processes and the chain of custody underwent an internal audit to evaluate compliance with Cerflor and FSC certifications in preparation for upcoming external audits scheduled for 2020.

In the Industrial unit, there was an internal audit, carried out by the Integrated Management System team. It showed compliance with the requirements of the ISO9001 and ISO14001 standards. Also, a specialized company was hired that audited 100% of the environmental legislation applicable to Bracell SP.

Bracell owns certifications that attest to the sustainable production of its products.

Responsibility with customers

GRI 103|416

In 2019, Bracell Bahia’s sales were aimed at customers in the private and public sectors, mainly in the textile and chemical industries, whose beneficiaries are the end consumer and the food, automotive and textile industry. Bracell São Paulo’s sales were mainly to the private sector, to customers operating in the packaging and special papers, tissues, and printing/writing paper segments, with the textile and graphics industry as final beneficiaries, in addition to final consumers.

SALES BY DESTINATION GRI 102-6

BRACELL SP

CHINA: 62%

- BRAZIL: 30%
- OTHER COUNTRIES: 8%

BRACELL BA

98.8% of Bracell Bahia’s sales volume were exported:

- CHINA: 69%
- UNITED STATES: 19%
- EUROPE: 6%
- MEXICO: 4%
- OTHER COUNTRIES: 2%

1.2% of the total produced was sold to the Brazilian market.

HEALTH, SAFETY, AND ENVIRONMENT

GRI 103|417, 416-1, 416-2, 417-1, 417-2

The pulp produced by Bracell present no potential risks to health, safety, and the environment. Information about the company’s products is available to customers through the Chemical Product Information Sheets, with versions in Portuguese, Spanish, English, German and French. They meet the standard of the Globally Harmonized System of Classification and Labelling of Chemicals. As in

previous years, in 2019, no non-conformity was recorded related to impacts on health and safety throughout the pulp life cycle.

Although it is Cerflor certified, the company has chosen not to use the seal corresponding to this standard and is therefore exempt from specific labelling requirements determined by it.

Property security

GRI 1031410, 410-1

To preserve the environment, care for the community and watch over for Bracell's asset, whether physical or human resources, the company demonstrates its efforts with an integrated system of security and corporate intelligence that includes: physical security of the facilities; perimeter control; CCTV aggregate complex (closed-circuit television); patrolling; escorts, security, executive personal protection; and investigative and intelligence services. The objective is to prevent illegal logging of native and planted wood, fighting arson, preventing deforestation, and mitigating various risks and damages.

Bracell declares that there were no cases of conflict over land use in 2019. The company has engaged and negotiated with eventual affected parties, prioritizing alternatives of resolution based on dialogue, prior to judicial alternatives. When the results are not positive in the friendly dialogue, Bracell's Legal Department is responsible for analyzing all the information and proposing the appropriate measures for the resolution of eventual conflicts.

The integrated system of security and corporate intelligence care to preserve the environment, the community and Bracell's asset.

Bracell uses technologies such as patrols controlled by an intelligent GPS, electric poles for forest environments, and drones with thermal cameras, audio, and excellent flight capacity for monitoring areas, blowers, and advanced firefighting kits. Also, six fire brigade training were promoted. Furthermore, operational teams fulfill a triad that consists of training, operating, and instructing, with an emphasis on tactical activities and safety and protection of authorities.

Bracell Bahia has 16 forestry surveillance towers distributed over its properties, to cross information about possible fire outbreaks and allow the agents to immediately activate the combat teams and prompt response (brigades).

Annually, at the beginning of the critical period of fires, maps are released, indicating the water sources that may be accessed by firefighting trucks and light brigades. They are strategically distributed to optimize supply and arrival times. During the fire season, the internal and external firebreaks are kept especially clean, with more considerable attention to those near to critical areas.

To bring the company closer to the community, Bracell Bahia promotes educational activities such as the Amigos da Floresta (Friends of the Forest) Program - which was expanded to the entire northern region of the state. It acts in partnership with the Community Committee for Forest Security and holds a monthly meeting with community leaders, government representatives, and authorities.

In 2019, Bracell São Paulo created the Patrimonial Security management, with the expansion of security activities and resources (both own and outsourced) for the plant, forestry unit, and Project Star. The operational and strategic actions are in line with Bracell Bahia, in single national management.

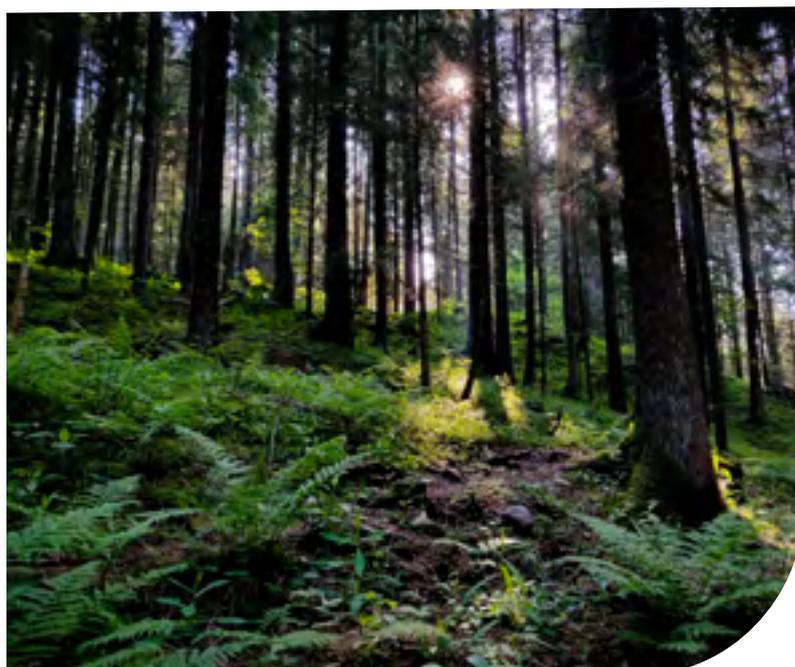
Outsourced security agents hired by Bracell must keep their National Watchman's Card valid, meaning that their training courses are up to date. These courses cover topics such as notions of private security; applied legislation; human rights and human relations at work; public security system and organized crime; fire prevention and fighting and first aid; physical education, self-defence; armament and shooting; surveillance; radio communication and alarms; and criminalistic and interview technique. To maintain excellence in their actions, these agents go through systematic training with an emphasis on acting in forestry and industrial areas.

The third-party staff of Bracell's Property Security must take a refresher course on human rights every two years, as required by Brazilian law. Besides, Bracell Bahia, carried-out 2 training sessions lasting 8 hours each to Property security employees and third-party staff, with the participation of representatives of the Civil Police and the Public Ministry. About 220 people were trained.

All activity respects formal security procedures in both units.

“Our manager starts our monthly meetings with the following message: ‘The forest is ours, gentlemen!’ It is the fuel for us to continue our work. During the 365 days of the year, we made several inroads to guarantee the inviolability and integrity of the forest, environmental and structural areas, and our most valuable asset, our employees - in addition to ensuring the continuity of operations. I am very proud of my work in defending nature daily. My son, João Victor, who is six, says to me: ‘My father, you are the hero of the forest!’”

Wellington de Souza Santos has worked for five years at Bracell Bahia, at Patrimonial Security area as a brigadier.



A vibrant toucan bird with a large black beak and a yellow and red throat is perched on a tree branch. The background is a dense, sunlit forest with green leaves.

Biodiversity Management

GRI 1031304, 304-4

Principles

In all forestry activities, from silviculture to the delivery of eucalyptus wood to the mill, Bracell seeks the best use of soil, and to respect the remnants of native vegetation and local fauna, going beyond environmental legislation.

Bracell does not deforest to start new plantations, thus reaffirming its commitment to forming its forest base in zero converted areas. In compliance with current environmental legislation, Bracell carries out preliminary assessments in all areas of interest, using tools such as the Rural Environmental Register (CAR) and satellite images. In this way, the company commits with the protection of the remnants of native vegetation mapped on the properties, as well as proceed with the appropriate restoration measures, if necessary.

The company's ecosystem conservation program cares for the preservation of natural environments and includes the following initiatives:

- **Phytophysiognomic characterization** of type of physiognomy and successional stage of areas managed by Bracell;
- **Demarcation and mapping of areas for conservation** - planning of operational activities and delimitation of Legal Reserve areas and Permanent Preservation Areas;
- **Fauna and flora monitoring;**
- **Surface water monitoring;**
- **Evaluation and identification of high conservation values**, according to guidelines established in PROFOREST Guide and Principle 9 of FSC;
- **Monitoring, recording, and control** of irregular occurrences in the forest units;
- **Environmental awareness** with training for employees and outsourced staff;
- **Recovery and / or restoration of areas degraded by erosion** - aims to prevent, minimize or mitigate the impacts on the soil in forest management units;
- **Monitoring of exotic tree/shrub species** in areas destined for conservation.

Bracell does not deforest to start new plantations and maintains its conservation areas in mosaic with eucalyptus plantations, favoring biodiversity.

Annually, Bracell publishes the public summary of the Management Plan of its units in Brazil.



In 2019, Bracell Bahia recovered 5.17 ha¹ compared to 9.26 ha in 2018. In São Paulo, 30 properties (573 ha) were monitored, where the method of natural regeneration was adopted. The areas showed evidence of resilience with the evolution of vegetation, compared to the initial characterization.

The company has the practice of identifying the aspects and impacts of its forestry operation through a matrix. When they are positive, initiatives are carried out to enhance them, and when they are negative, mitigation, control, and monitoring actions are undertaken.

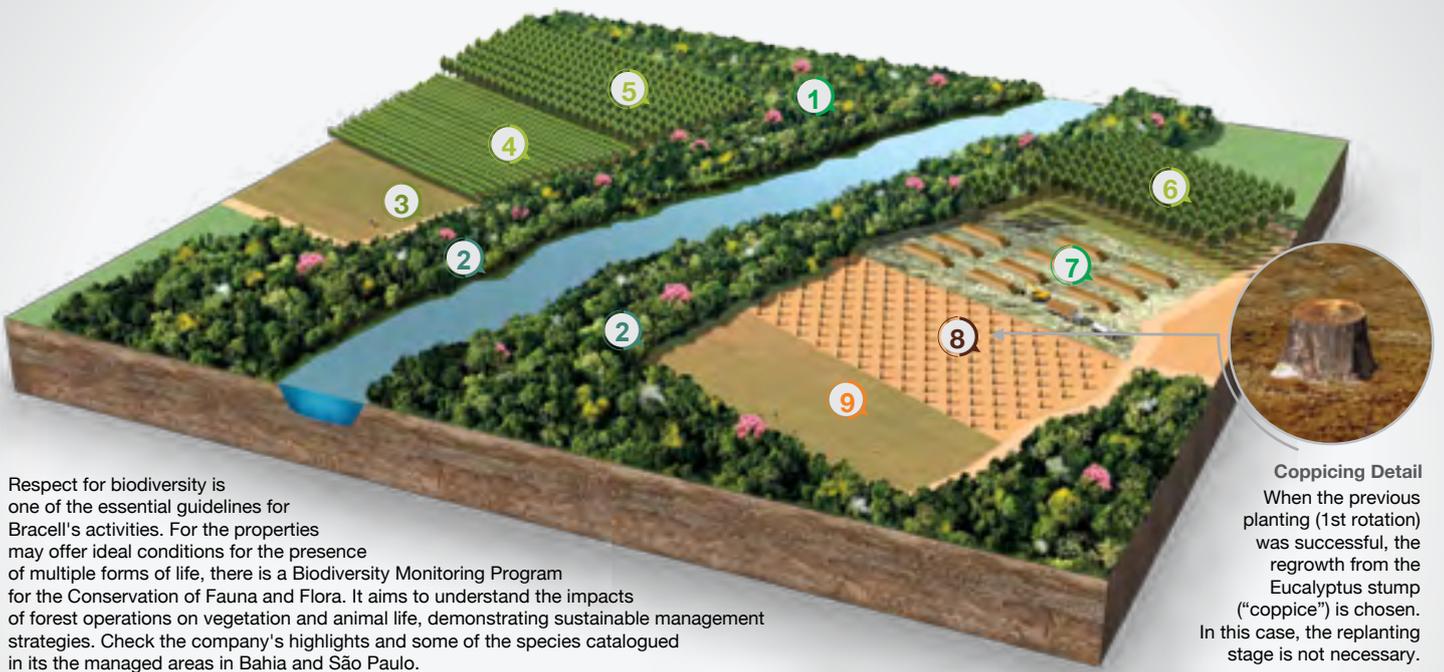
Bracell annually updates and publishes the public summary of the Management Plan of its units, Bahia and São Paulo, on its website. The document summarizes the information from the company's Forest Management Plan. It is used for planning business activities and describes the objectives, responsibilities, resources, and practices for adopting responsible management.

¹One hectare (ha) is the same as 10,000 square metres.

Landscape Management and Respect for Biodiversity

Management is an essential tool for the conservation of biodiversity and water resources. Bracell has acted firmly in the maintenance of natural ecosystems and their services. More than 30% of Bracell's managed areas are destined for environmental preservation (areas of native vegetation, legal reserve, and PPAs). Check below an illustration that exemplifies how Bracell seeks to carry out the planning of its areas.

- 1** **LR**
Legal Reserve
It represents a percentage of the property maintained with native vegetation coverage, following Brazilian federal legislation. It aims to assist the conservation and rehabilitation of ecological processes and promote the preservation of biodiversity, as well as the shelter and protection of wild fauna and native flora. Its minimum size varies according to the location of the property, and the biome in it.
- 2** **PPA**
Permanent Preservation Area
PPAs are protected areas, covered or not by natural vegetation. Their aim is to preserve water resources, the landscape, and biodiversity, protect the soil, and ensure the well-being of the population. In PPAs river banks, surrounding springs, hilltops, and areas with a slope greater than 45 degrees must be preserved.
- 3** **Planting**
- 4** **1-2 year old eucalyptus**
- 5** **3-5 year old eucalyptus**
- 6** **6-7 year old eucalyptus**
- 7** **Harvest**
- 8** **Coppice**
- 9** **Replanting**



Respect for biodiversity is one of the essential guidelines for Bracell's activities. For the properties may offer ideal conditions for the presence of multiple forms of life, there is a Biodiversity Monitoring Program for the Conservation of Fauna and Flora. It aims to understand the impacts of forest operations on vegetation and animal life, demonstrating sustainable management strategies. Check the company's highlights and some of the species catalogued in its the managed areas in Bahia and São Paulo.

Coppicing Detail
When the previous planting (1st rotation) was successful, the regrowth from the Eucalyptus stump ("coppice") is chosen. In this case, the replanting stage is not necessary.

FLORA

666 species of flora catalogued, 22 of which are threatened or in danger of extinction.



Sucupira-preto (BA) Guapuruvu (SP) Canela-de-velho (SP)

MAMMALS

71 species of mammals catalogued, 15 of which are threatened or in danger of extinction.



Tatu-peba (SP) Quati (SP) Macaco guigó (BA)

HERPETOFAUNA

122 species of herpetofauna catalogued, with 64 species of amphibians, and 58 species of reptiles. Of these, 3 species were classified as threatened or in danger of extinction.



Cascavel (SP) Cobra-bicuda (BA) Sapo-cururu (SP)

BIRDS

571 catalogued bird species, 14 of which are classified as threatened or in danger of extinction.



Jaçanã (SP) Arimamba-de-cauda-ruiva (BA) Coruja-buraqueira (BA)

The Bracell's area covering 1,377 ha between the municipalities of 'Entre Rios' and 'Itanagra' on the north coast of Bahia, called Lontra PNHR*, was awarded the title of the outpost for the Atlantic Forest Biosphere Reserve by UNESCO. That means an international recognition of the most important natural areas on the planet that serve as places of excellence for scientific research, experimentation, and promotion of conservation and sustainable regional development.

* Private Natural Heritage Reserve. It is established in a private domain conservation unit in perpetuity to preserve biodiversity.

Source: https://iba.org/images/shared/Biblioteca/PT_Info_Agua_2018.pdf
<https://www.embrapa.br/codigo-florestal/area-de-reserva-legal-arl>
<https://www.icmbio.gov.br/portal/criesuareserva/perguntas-e-respostas-sobre-rppn>

CHARACTERIZATION OF FLORA

According to data obtained from the Forestry Foundation, approximately 13.94% of the State of São Paulo's territory is covered by natural vegetation. The occupation history caused a significant change in the primitive landscape due to the anthropic action of crops and livestock expansion. The dense forest formations mixed with the savannas, initially observed, were gradually suppressed, leaving only isolated fragments of small sizes, and are highly anthropized with rare exceptions. The result of the regional anthropic action was a simplification of habitats, and consequently, the original biological diversity reduction.

Floristic impoverishment also generated direct impacts on the fauna. Part of the native species disappeared, while others were confined to the existing remnants of native vegetation or have had to adapt to the new environmental

conditions. Studies contracted by Bracell São Paulo to characterize flora and fauna in the remnants of native vegetation on its managed farms confirm this regional picture.

At Bracell Bahia, research carried out on the northern coast of Bahia has recorded a large number of endemic species in the Atlantic Forest and / or threatened with extinction. The north coast also has essential areas for the landing and feeding of continental and oceanic migratory birds.

Endemic, rare and endangered species, and areas that shelter these species or that serve as landing or reproduction of migratory species are protected by the Constitution of the State of Bahia, of 10/05/1989, article 215, by Law nº 10.431, of 12/20/2006, and by Decree No. 11,235 of 10/10/2008, being considered Permanent Preservation Areas.

LONTRA PRNH

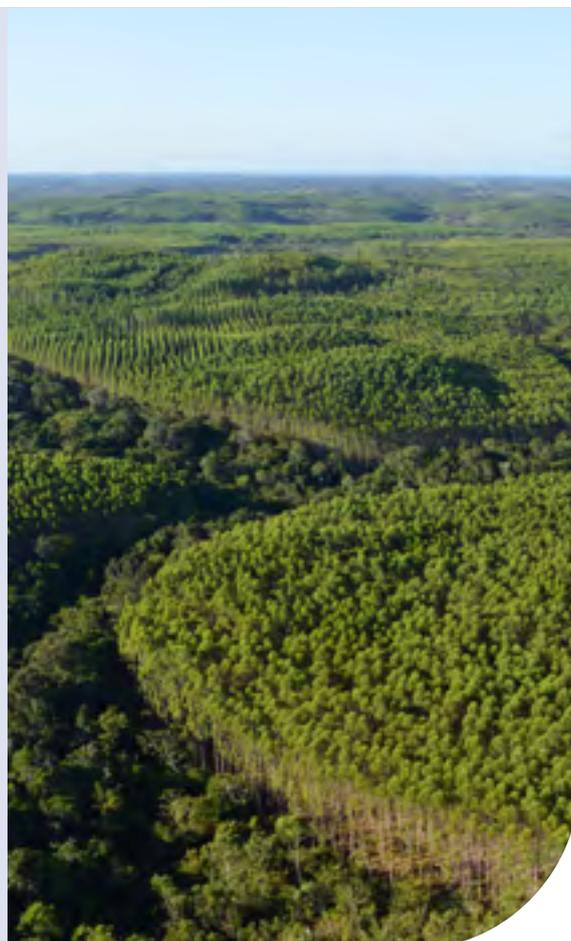
GRI 304-3

Bracell maintains the Lontra Private Reserve of Natural Heritage (PRNH), a private conservation unit of public interest, to conserve biological diversity. With an area of 1,377.33 hectares, the reserve integrates Lontra/Saudade farm, a property belonging to the company and located between the municipalities of Entre Rios and Itanagra, in the state of Bahia.

Since 2018, Lontra PRNH holds the title of Advanced Post of the Atlantic Forest Biosphere Reserve (APABR). That means the reserve has officially been considered a strategic area for the protection of the Atlantic Forest biome, according to international criteria of the 'Man and the Biosphere' Program, of the United Nations Educational, Scientific

‘Photographing allows me to connect with many people at Bracell. In addition to always learning a little more about our production process, I discover exciting life stories and discover incredible places, such as our environmental conservation areas. In my work, I always have the company of excellent professionals. Without this partnership, I would never know what I know. I would not have experienced what I have and shared what I share with colleagues, which is something far beyond photos: it is the true pride of being part of a company like Bracell, which produces essential items for the lives of millions of people around the world.’

*Gleison Rezende
has worked for the company for 12 years in the
Corporate Communication area of Bracell Bahia.*



BIODIVERSITY MONITORING AT BRACELL SP

GRI 304-4

Since 2007, Bracell SP has carried out ecological studies of fauna and flora in the areas the company operates, to develop strategies to minimize possible impacts of its activities.

By 2019, through surveys of mammals (small, medium, and large mammals) and avifauna (birds), Bracell São Paulo, catalogued 39 species of mammals and 302 species of birds. Among them, there are nine mammals and one bird classified as threatened or endangered according to listings by the International Union for the Conservation of Nature (IUCN), the Chico Mendes Institute for Biodiversity Conservation (ICMBio) and the State Decree

and Cultural Organization (Unesco). It is the only APABR outpost in Bahia owned by a private company.

In 2020, the company should reach more 6,500 ha of PRNHs, as the process is already underway at the State Secretariat for the Environment (Sema) and the Institute for the Environment and Water Resources (Inema) in Bahia.

n° 63853, November 27, 2018. Forty-three endemic bird species were also catalogued.

Flora monitoring is carried-out every five years by independent parties, like universities and researchers, and takes place in areas representing the main biomes found in the company's managed forests. The last survey was carried out in 2017, identifying 260 species, five of which threatened or endangered with extinction.

Find out below which species found in the company's managed areas are threatened or endangered with extinction, according to the Chico Mendes Institute for Biodiversity Conservation (ICMBio) and the International Union for Nature Conservation (IUCN). They are classified according to the number of individuals by species and other factors that indicate the degree of threat. The scale starts with the category 'not very worrying,' followed by 'almost threatened,' 'vulnerable,' 'in danger,' 'critically endangered,' 'extinct in nature,' and 'extinct.'

Common name	Specie	ICMBio	IUCN
Threatened or endangered Mammals Species - Bracell São Paulo			
Guara wolf	<i>Chrysocyon brachyurus</i>	Vulnerable	Almost threatened
Lontra	<i>Lontra longicaudis</i>	Almost threatened	Almost threatened
Howler	<i>Alouatta clamitans</i>	Vulnerable	Not very worrying
Field Fox	<i>Lycalopex vetulus</i>	Vulnerable	Not very worrying
Black Lion Tamarin	<i>Leontopithecus chrysopygus</i>	In danger	In danger
Ocelot	<i>Leopardus pardalis</i>	Not very worrying	Not very worrying
Wild cat	<i>Leopardus sp.</i>	Vulnerable	In danger
Puma	<i>Puma concolor</i>	Vulnerable	Not very worrying
Giant anteater	<i>Myrmecophaga tridactyla</i>	Vulnerable	Vulnerable
Threatened or endangered Avifauna Species - Bracell São Paulo			
Maracanã-verdadeira	<i>Primolius maracana</i>	Almost threatened	Almost threatened
Threatened or endangered Flora Species - Bracell São Paulo			
Ipê Felpudo	<i>Zeyheria tuberculosa</i> (Vell.) Bureau ex Verl	Vulnerable	Vulnerable
Dry flour	<i>Albizia burkartiana</i> Barneby & J.W.Grimes	Vulnerable	Vulnerable
Cinnamon Sassáfras	<i>Ocotea cf odorifera</i> (Vell.) Rohwer	In danger	-
Cedar	<i>Cedrela fissilis</i> Vell	Vulnerable	Vulnerable
Jasmim	<i>Rudgea jasminoides</i> (Cham.) Müll.Arg.	Vulnerable	Almost threatened

BIODIVERSITY MONITORING AT BRACELL BAHIA

GRI 304-4

Bracell Bahia carries out ongoing projects to monitor the biodiversity present in its areas. Based on inventory, diagnostics, and ecological studies of fauna and flora in the company's areas of operation, these monitoring is the first step towards the conservation and rational use of these resources.

In this sense, through the adoption of specific methods and tools for monitoring bioindicators (flora, herpetofauna, avifauna, and mammals), and following the principles of Conservation Biology, Bracell has inventoried 829 species in its areas. Of these,

406 are from Flora (angiosperms) and 423 from fauna (269 bird species, 32 mammals and 122 herpetofauna species, being 64 of amphibians and 58 reptiles). Among them, 39 are included in Lists of Endangered or Threatened Species in Brazil or abroad.

Concerning birds, Lontra PRNH stood out, for presenting 13 species with high sensitivity to environmental disturbances. Another striking feature of the reserve was the high index of endemic species for the Atlantic Forest biome (47), corresponding to 22% of the total.

An essential fact during the year was the record of the surucucu-pico-de-jaca (*Lachesis muta*), the giantest venomous snake in the Americas, seen during the day at Lontra PRNH, amid the litter. This species is classified in the Vulnerable category in the Official



Igor Macedo, biologist, conducting the biodiversity monitoring at Bracell Bahia.

'Over these nearly two years of doing my job at Bracell, I can say that I feel fulfilled and proud. Today, biodiversity monitoring has a strong interaction with different sectors and involves all people in need to carry out conservation actions, whether in company areas, and, consequently, in their communities. It leads to anxiety to seek improvements and ultimately generates a better product for our customers, plenty of quality, sustainability, and ethics.'

*Igor Macedo
has worked at the company since 2018 in
Environment and Certifications at Bracell Bahia*

List of Endangered Fauna Species in the State of Bahia.

Find out below which species found in the company’s managed areas are threatened or endangered with extinction, according to the Chico Mendes Institute for Biodiversity Conservation (ICMBio) and the International

Union for Nature Conservation (IUCN). They are classified according to the number of individuals by species and other factors that indicate the degree of threat. The scale starts with the category ‘not very worrying,’ followed by ‘almost threatened,’ ‘vulnerable,’ ‘in danger,’ ‘critically endangered,’ ‘extinct in nature,’ and ‘extinct.’

Family	Specie	ICMBio	IUCN
Threatened or endangered Flora Species – Bracell Bahia			
Anacardiaceae	<i>Astronium fraxinifolium</i>	Not very worrying	-
	<i>Schinopsis brasiliensis</i>	Not very worrying	-
Arecaceae	<i>Allagoptera brevicalyx</i>	Vulnerable	-
	<i>Bactris soeirana</i>	Almost threatened	-
Bignoniaceae	<i>Tabebuia cassinoides</i>	Vulnerable	-
Bromeliaceae	<i>Hohenbergia castellanosii</i>	In danger	-
Burseraceae	<i>Protium bahianum</i>	In danger	-
Erythroxylaceae	<i>Erythroxylum maracasense</i>	In danger	-
Fabaceae	<i>Abarema cochliacarpus</i>	Almost threatened	-
	<i>Caesalpinia echinata</i>	Not very worrying	Not very worrying
	<i>Inga suborbicularis</i>	Vulnerable	Vulnerable
	<i>Senna phlebadenia</i>	Almost threatened	-
Lamiaceae	<i>Eriope blanchetii</i>	Vulnerable	-
Myrtaceae	<i>Calycolpus legrandii</i>	Vulnerable	Vulnerable
Sapotaceae	<i>Manilkara dardanoi</i>	Vulnerable	In danger
	<i>M. decrescens</i>	Vulnerable	In danger
	<i>M maxima</i>	In danger	Vulnerable

Family	Specie	ICMBio	IUCN
Threatened or endangered Avifauna Species - Bracell Bahia			
Conopophagidae	<i>Conopophaga melanops nigrifrons</i>	Vulnerable	Vulnerable
Cotingidae	<i>Lipaugus vociferans</i>	-	Not very worrying
	<i>Xipholena atropurpurea</i>	In danger	Vulnerable
Fringillidae	<i>Spinus yarrellii</i>	Vulnerable	Vulnerable
Furnariidae	<i>Automolus lammi</i>	Vulnerable	Vulnerable
Psittacidae	<i>Amazona rhodocorytha</i>	In danger	Vulnerable
	<i>Touit surdus</i>	Vulnerable	Vulnerable
Thamnophiliade	<i>Herpsilochmus pectoralis</i>	Vulnerable	Vulnerable
	<i>Herpsilochmus pileatus</i>	Vulnerable	Vulnerable
	<i>Myrmotherula urosticta</i>	In danger	Vulnerable
	<i>Pyriglena atra</i>	-	In danger
Thraupidae	<i>Tangara velia signata</i>	Vulnerable	Not very worrying
Tinamidae	<i>Crypturellus noctivagus (zambelê)</i>	-	Almost threatened

Family	Specie	ICMBio	IUCN
Threatened or endangered Mammals Species - Bracell Bahia			
Cebidae	<i>Sapajus xanthosternos</i>	In danger	Critically in danger
Felidae	<i>Leopardus pardalis</i>	Vulnerable	-
	<i>Leopardus trigrinus</i>	Vulnerable	Vulnerable
	<i>Puma concolor</i>	Vulnerable	-
	<i>Puma yagouaroundi</i>	Vulnerable	-
Pitheciidae	<i>Callicebus coimbrai</i>	In danger	In danger

Family	Specie	ICMBio	IUCN
Threatened or endangered Herpetofauna Species - Bracell Bahia			
Aromobatidae	<i>Allobates olfersioides</i>	Vulnerable	Vulnerable
Teiidae	<i>Ameivula abaetensis</i>	In danger	-
Tropiduridae	<i>Tropidurus hygomi</i>	Vulnerable	-



Mitigating Climate Change

GRI 103/305

Carbon balance

GRI 305-1, 305-2, 305-3, 305-4

At São Paulo and Bahia, Bracell conducts its inventory of greenhouse gas emissions based on the GHG Protocol.

Bracell conducts an annual survey of greenhouse gas emissions based on the GHG Protocol to identify, qualify, and quantify its scope 1 and 2 emissions.

In the inventories, all gases that contribute to the greenhouse effect are accounted for, according to the GHG Protocol. These gases are converted, being counted as CO₂ equivalent. Bracell São Paulo emits the following gases: CO₂, CH₄, N₂, and HFCs (hydrofluorocarbon).

From the annual diagnosis, the company seeks to adapt its infrastructure and procedures to reduce emissions in all operations and contribute to climate change mitigation.

At Bracell São Paulo, direct emissions (Scope 1) include industrial activities from stationary combustion (fuel consumption by boilers and furnace) and mobile (vehicle and industrial vehicle fleets), fugitive emissions, industrial processes (lime production) and effluent treatment. Concerning forestry activities, direct emissions include mobile combustion from fleets of vehicles, trucks, and harvesting and loading equipment. There was a change in the criteria used, and the outsourced fleet was not considered as Scope 1, but as Scope 3. The change justifies the fact that, even with the forest expansion, Bracell did not register an increase in emissions. Indirect emissions (Scope 2) originate from the electricity consumption of the mill, nursery, and farms.

Through benchmarking with companies in the sector, Bracell São Paulo improved its inventory, adding the accounting for effluent emissions and changing the methodology for calculating CO₂ emissions in lime production (IPCC reference 2006).

The main challenge for 2019, for São Paulo, was to maintain the levels of CO₂ emissions despite the increase in pulp production compared to 2018. The goal was met: there was a 49% reduction. This achievement was a result of some factors:

- **Reduction in CO₂ equivalent emission** in stationary combustion due to a decrease in oil consumption 1A, compared to 2018;
- **Non-reporting of fuels** used by outsourced fleet form scope 1, as Bracell does not pay for them;
- **Reduction in CO₂ emissions** in electricity consumption due to high energy consumption in 2018 caused by stops at the Fluidized Bed Boiler, and the consequent need to purchase external energy;
- **Change in the CO₂ emission criteria** for lime production. Besides the methodology, we started to consider this emission as biogenic CO₂ because it comes from Black Liquor (wood lignin) burning.

Since 2012, Bracell São Paulo has the Internal Energy Conservation Commission. It performs energy diagnostics of the plant, monitors indicators related to the consumption of thermal and electric energy, makes proposals, implements measures, and follows the actions to the rational use of resources, regarding the control of atmospheric emissions.

Bracell São Paulo calculates carbon sequestration (removals) for its eucalyptus plantations based on the average annual increase of biomass. Based on the information, it is



estimated that in 2019 the unit absorbed 7.6 million tCO₂, a rise of 195% compared to 2018. This increase is mainly due to the increase in managed areas by Bracell (for existing eucalyptus farms).

Bracell SP's goals for 2020 are: to maintain the excellent performance of 2019 and to collect data for the calculation of scope 3, to be reported in the Greenhouse Gas Inventory next year - referring to 2020 (GRI 305-3).

About 10 million tCO₂ were absorbed from the atmosphere by planted eucalyptus forests of Bracell.

GREENHOUSE GAS EMISSIONS (TONS OF CO ₂ eq) – BASELINE: 2019			
Unit	Type	2019	
		Forestry	Industrial
Bracell Bahia	Direct (Scope 1)	15,040	204,994
	Indirect (Scope 2)	120	31,751
	Subtotal	15,160	236,745
Bracell São Paulo	Direct (Scope 1)	9,780	40,117
	Indirect (Scope 2)	22	183
	Subtotal	9,802	40,300
Bracell	Total	302,007 t de CO₂eq	

Total emissions (scope 1 and 2) in 2019, for Bracell Bahia's industrial and forestry units, were 10% lower compared to the previous year. The decrease is associated with the reduction of direct emissions from Bracell Industrial, mainly due to the reduction of fuel burning in stationary sources. It is the second consecutive year emissions have been reduced.

There was a drop in consumption in all items evaluated in industrial operations, except LPG (5%) and gasoline (30.1%). In forestry opera-

tions, emissions increased by 22.62%, driven by mobile sources, mainly diesel (97%).

Emissions from the generation of the electricity purchased by Bracell were in line with the previous year. The industrial unit had a reduction of 0.1%, and the forestry unit increased by 58.1%.

At Bracell Bahia, direct emissions (Scope 1) relate to forestry activities such as stationary combustion (diesel generator), mobile combustion (road fleet and harvesting and loading equipment), and emissions from processes (agricultural practices, liming and fertilizers).

In the industrial area, emissions related to Scope 1 include stationary combustion (burning of fossil fuels and biomass in fixed equipment), mobile combustion (road fleet and machinery), and waste (decomposition of waste sent to the landfill). Indirect emissions (Scope 2) originate from the electricity consumption of the plant in Camaçari / BA, the forestry unit in Alagoinhas / BA, and the nurseries and farms.

The study of Bracell Bahia's carbon footprint was carried out by adopting 1 kg of dissolving pulp as the functional unit. The analysed production chain comprises the entire forestry and industrial production process of Bracell Bahia. The carbon footprint of Bracell Bahia's dissolving pulp was quantified at 0.817 kgCO₂eq and per kilogram of pulp at the exit gate of the industrial unit. There was a 3% decrease in the carbon footprint compared to 2018 [GRI 305-4](#).

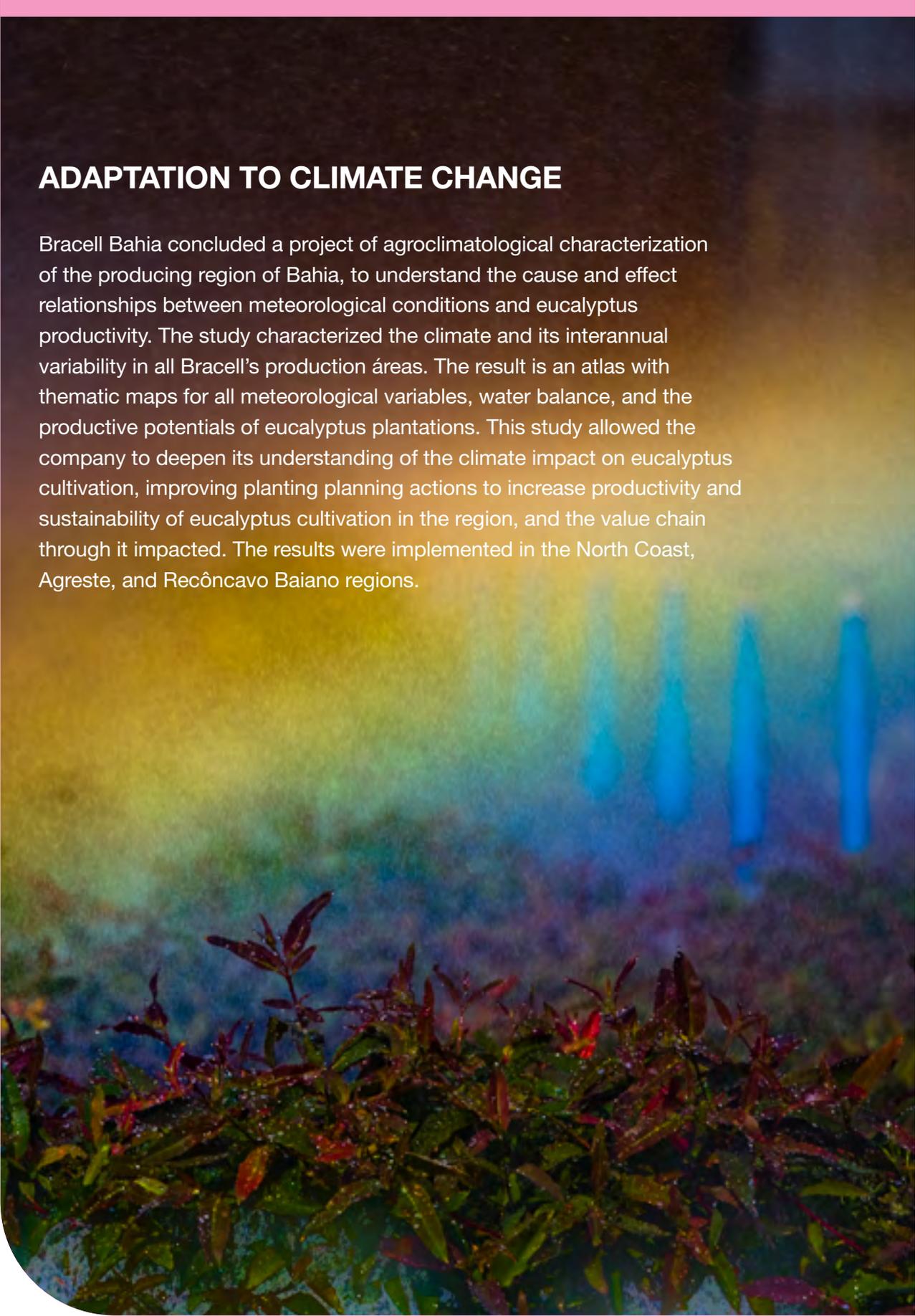
The carbon footprint of Bracell Bahia was quantified at 0.817 kgCO₂eq per kilogram of dissolving pulp.

Bracell Bahia also calculates carbon sequestration for its eucalyptus plantations based on the average annual increase of biomass. Based on this information, a yearly absorption of 2.4 million tCO₂ is estimated.

Most of the material obtained in the harvesting operations - the wood itself - is used for the manufacture of dissolving pulp. The parts not used in this activity, like branches, leaves, bark, and roots, are also considered in the calculation of the emission, assuming that all the carbon previously absorbed will be emitted again as CO₂. The inventory indicates a discharge of 3.1 million tCO₂. In 2018, the volume was 3 million.

ADAPTATION TO CLIMATE CHANGE

Bracell Bahia concluded a project of agroclimatological characterization of the producing region of Bahia, to understand the cause and effect relationships between meteorological conditions and eucalyptus productivity. The study characterized the climate and its interannual variability in all Bracell's production áreas. The result is an atlas with thematic maps for all meteorological variables, water balance, and the productive potentials of eucalyptus plantations. This study allowed the company to deepen its understanding of the climate impact on eucalyptus cultivation, improving planting planning actions to increase productivity and sustainability of eucalyptus cultivation in the region, and the value chain through it impacted. The results were implemented in the North Coast, Agreste, and Recôncavo Baiano regions.



Project Star

GRI 203-1, 203-2



Project Star: expansion in the state of São Paulo

Project Star will enable Bracell to become the world's largest producer of dissolving wood pulp by the second half of 2021 when the expansion of its mill in the state of São Paulo is completed. The project is a milestone in the trajectory of the Lençóis Paulista (SP) unit, already recognized by rapid growth and technological updates.

Currently, Bracell's main product in São Paulo is bleached kraft pulp, but with the expansion, the mill will have a flexible line designed to primarily produce dissolving wood pulp. The installed capacity will increase to 1.5 million tons per year. Considering Bracell's operations in Bahia and São Paulo, the company will be able to deliver approximately 2 million tons/year of cellulose to the Brazilian and foreign markets (250 thousand tons of kraft pulp and 1.75 million tons of dissolving pulp).

Project Star foresees investments of R\$ 8 billion (approximately USD 1.5 billion¹⁴), one of the largest made by the private sector in the state of São Paulo in the last two decades. The epicenter of the investments will be the municipalities of Lençóis Paulista and Macatuba, but the venture will also create job opportunities in the surrounding cities. The work will employ more than 20,000 workers over the duration of the project, with 11,000 at its peak. After its completion, the operation phase will require the hiring of approximately 6,650 direct and outsourced professionals, permanently, in industrial, forestry, and logistics activities.

The new plant adopts the most advanced concepts of environmental control and sustainability, with waste reduction, low water consumption, low atmospheric emissions and minimum use of fossil fuels with total reuse of the biomass generated. This care reflects the company's ambition to be one of the most significant operations and one of the most responsible in the social and environmental aspects [GRI 303-4, 302-4, 305-4](#)

¹⁴ Exchange rate considered the following: R\$ 5.17 for each USD 1.00 (Brazilian Real to US Dollar).

2 million tons
will be the pulp delivery capacity per year, after the expansion of the São Paulo plant

Another investment is in a state-of-the-art power distribution system, including 440 kV substation technology, increasing safety in the industry’s power supply system. Also, the excess 180MW of renewable green energy generated from the burning of the organic fraction of the liquor (chemical recovery system) will be supplied to the national grid. Project Star also addresses robust rainwater capture and reuse system throughout the industrial facilities.

Bracell will also allocate part of the budget to community and social investments, with priority on improving health and public safety infrastructures in the main cities where its expansion project is located. The company will offer qualification programs for the workforce and local suppliers to meet the needs of the new plant.

PROJECT MILESTONES

AUG / 2018

Acquisition of the unit located in São Paulo by RGE.

JUL / 2019

Work began with the piles and foundation to the Recovery Boiler. At the same time, temporary buildings were erected, more precisely, the entrance, restaurant, project office, ambulatory and social center. Subsequently, the infrastructure services were installed with underground pipes, electrical equipment, and paving.

JAN / 2019

Licensing process started in 2011 by Lwarcel when the EIA RIMA. CETESB (public agency) approved Project Star’s installation license under compliance with environmental programs.



Opening ceremony of the Project Star. In the photo, Bracell and RGE executives.

‘For Lençóis and the region, Project Star means great opportunities. We are very proud to be where we are, and we are also aware of our responsibility. We maintain an ongoing dialogue with the public authorities and the civil society to work together and support the region’s socio-economic development. We have studied the communities surrounding our facilities, analysing the scenarios, potential risks, and impacts, and acted proactively to ensure that our expansion project is positive to all. We are also committed to work following the highest standards of sustainability.’

Pedro Stefanini, General Director at Bracell São Paulo

OCT / 2019

Launch of the labor hiring platform for Project Star (learn more on page 109). The assessment and management of external risks related to the implementation and operation of the work are complete, along with mitigation plans for each area. A preliminary health diagnosis is also produced for priority municipalities in the area covered by the project. The first meeting called Critical Analysis Meeting took place in São Paulo, gathering more than 200 professionals involved in Project Star, including Bracell employees and more than 20 associated companies. The main objective is mitigating risks and setting a more precise understanding between the partners and Bracell for the next phase of the enterprise aiming to integrate work to the project’s completion. In the same month, the company welcomed 220 new employees. Young employees of the Bracell Training Program were integrated with the Operator Course on Production of dissolving wood pulp, held at Senai, that required two months (296 hours) to complete. In the sequence,

the new team went on a next phase called ‘On The Job Training’ Program with training at the mill.

DEC / 2019

The first metallic column of the boiler is assembled. The Project Star cafeteria was also opened. The space that occupies an area of 5,000 m² has a capacity for 1,500 people seated in a fully air-conditioned environment. A socioeconomic diagnosis of the 16 municipalities in the vicinity of the Star Project is carried out to understand the potential effects on economic activity and social development of the cities belonging to the area of its direct influence. The diagnosis took into consideration social, educational, financial, infrastructure, and health aspects.

Commitment to sustainability

Project Star follows Bracell's sustainability guidelines and those contained in the Equator Principles and the Performance Standards of the International Finance Corporation (World Bank Group). The company also observes the guidance of the International Labor Organization. In 2020, Bracell will develop a specific Sustainability policy for Project Star based on the mentioned commitments and will disclose it on the site.

Bracell values stakeholder engagement, having carried out the mapping and identification of the stakeholders of Project Star and the operations on the company's farms.

ASSESSMENT AND MANAGEMENT OF ENVIRONMENTAL RISKS AND IMPACTS

Bracell values stakeholder engagement, having carried out the mapping and identification of the stakeholders of Project Star and the operations on the company's farms. This mapping allowed it to better understand the people in the surroundings and to identify their points of interest and profile. [\(GRI 102-40\)](#)

To assess the potential impacts of the Project Star on the society, the economy, and the environment in the region of Lençóis Paulista (SP), the company carried out a series of surveys, among which the EIA-RIMA (more details in the box on page 114).

Working with an outside contractor, the Bracell's Construction Planning team is coordinating the risk assessment of the expansion project, which includes workshops and meetings held with employees and associated companies. It is a continuous process.

Besides, Bracell hired a consultancy for a participatory socio-economic diagnosis to frame 16 municipalities, which are considered a priority for the company. The diagnosis obtained information such as individual perceptions about the Bracell enterprise and the territory; needs, demands, and audiences that will provide grounds to the company's social investment plan; and bottlenecks and risks related to the implementation of the Project Star.

The same consultancy carried out other assessments of the project's sustainability risks (mill and forestry expansion), a survey of quick wins, and potential mitigation actions for the identified risks. During this period, several Bracell's employees and external stakeholders were interviewed [GRI 203-2, 102-40](#).

For 2020, Bracell's goal is to initiate a socio-economic and environmental diagnosis of the leading municipalities in its forest areas in São Paulo, to establish a baseline and monitor the indicators over time, thus identifying the positive or negative impacts of the performance of the company in the region.



16 priority municipalities

were the scope of a socioeconomic diagnosis carried-out by Bracell



Bracell mill in Lençóis Paulista (SP).

Environmental Impact Report

The Environmental Impact Report (RIMA) is the result of the Environmental Impact Study related to Project Star, and it concluded that the expansion of Bracell's industrial enterprise in São Paulo is technical, socio-environmental, legal and institutionally viable. In the survey, the socio-environmental impacts resulting from civil works and the future operation of the industrial unit were evaluated, as well as aspects related to the legal sphere. The full RIMA is available at Bracell's website.





Bracell's mill in Lencóis Paulista/SP.



Job creation

Bracell signed partnerships to hire workforce in the region of Lençóis Paulista.

The company prioritizes hiring professionals in the ten municipalities located within a 50km radius of its location, which include Lençóis Paulista, Barra Bonita, Bauru, São Manoel, Agudos, Macatuba, Borebi, Pederneiras, Igarapu do Tietê and Areiópolis. It is a way to value and strengthen its relationship with localities and their communities and contribute to regional economic development.

In this sense, Bracell adopted measures such as the launch in 2019 of an electronic platform for registration of resumés. The tool is supplied by the municipalities and allows matching the job offer with people interested in working on Project Star. The information is contained in a single database, accessed by all third-party companies that hire for expansion works. The platform was presented during a meeting promoted by the company with municipal agents in the region, followed by Bracell taking the additional step to train the agents how to use the tool.

The work will require more than 20,000 professionals in different functions. To train the workforce in the region, the company entered into a number of partnerships, such as The São Paulo State Government through the Economic Development Secretariat, integrating the 'Minha Chance' program ('My Opportunity' in English). The objective is to increase the employability of beneficiaries of technical and professional qualification courses and to adapt the content to the demands of society and the labor market. The company declared its need for the workforce through 'Minha Chance,' and training was set up in line with it.

Other partnerships were signed with the National Service for Industrial Learning (Senai) units in Lençóis Paulista and Macatuba. The program content was specific, with training for future employees in Bracell's industrial and forestry units. For example, 159 young people were trained in the Dissolving Pulp Production Operator course, and 56 were trained in electrical and mechanical maintenance.

Resource efficiency and prevention of environmental impacts

The Project envisages equipment and improvements to minimize the impacts on natural resources and the pollution caused by the unit's operations. Among the actions, the following stand out:

- **Shipment of wood residues** (bark, logs and fines) to the gasification plant, which will produce gas to be used in lime kilns, replacing fossil fuels (natural gas and oil 1A).
- **Use of a 'dreg' centrifuge**, which results in a reduction of the solid waste generated.
- **New primary sludge dewatering technology to WTS (Water Treatment Station), ETE (Effluent Treatment Station), and biological sludge**, to increase the dryness content of this sludge.
- **Introduction of a new Chemical Recovery plant** with the capacity to meet the current production line and the new one to be installed. The measure brings environmental benefits to atmospheric emissions.
- **Collection and treatment of gases** from the causticizing tank.

- **Low Nox technology** and advanced environmental controls to be introduced in the future Recovery Boiler.
- **Use of pyrolysis gas** by burning wood residues to replace fossil fuels (natural gas and oil) in lime kilns.
- **Combination of the combustion air system** with the multilevel air system to reduce and control NOx, CO₂, and SO₂ emissions.
- **Change in liquor burning conditions in the furnace**, contributing to a significant reduction of the emission of SO₂ and ERT (Total Reduced Sulfur).
- **New design of the precipitator gas distribution system**, to control particulate material in the Recovery Boiler.
- **Use of more modern precipitator control systems**, calibrated remotely via Digital Distributed Control System.

In December 2019, Project Star entered into an important partnership for the destination of recyclable waste with ADEFILP – Lencóis Paulista Association of Physically Disabled People. From 2020, this waste will undergo a previous sorting at the Bracell project’s premises to ensure that the appropriate material is sent to that partner. Over the period of Project Star, approximately 15 thousand m³ of recyclables will be generated and donated to ADEFILP. This association provides

income for physically disabled members and premises with a pool for physiotherapy and medical care.

For 2020, Bracell’s goal is to carry out Project Star greenhouse gas emissions inventory.

Bracell’s new mill will have the most advanced technology to ensure the least impact of operations on the environment.



15 thousand m³
is the estimative of recyclable that will be donated

Health and safety

GRI 403-1, 403-2, 403-3, 403-5, 403-6, 403-7, 403-8

To ensure the well-being of employees hired by third-party companies, Bracell maintains a qualified Work Safety team in Project Star that conducts alignment meetings and consolidates information and indicators for all partners. Also, it dictates the workers' protection through the Safety Manual, procedures, and technical instructions.

Outsourced professionals are required to participate in an Integration Training, with a minimum 8-hour duration, provided by Bracell. It addresses topics such as Integrated Quality Policy, Environment, Safety and Health; Daily Safety Dialogue; communication of accidents, incidents, fires and environmental impacts; and assistance in case of occupational accidents.

There are other guidelines to be followed by the partners regarding compliance with labor, tax, and social security rules. To monitor this, Bracell hired a specialized company that performs:

- Inspection of housing and accommodation;
- Inspection of toilets and chemical toilets on the construction site;
- Control of meals, access to the cafeteria and exit of waste

- Inspection of light vehicles, machines, equipment, buses and trucks on the site;
- Approval of contractors and employees through document analysis and control;
- Control of validity of legal and mandatory documents to access the site.

For 2020, Bracell aims to form the Project Star Safety Committee. In the first quarter of the year, the Emergency Action Plan for the enterprise should also be concluded. Meanwhile, the company has planned measures to deal with incidents, including a centralized medical clinic. There is also the emergency team's support, and the mill brigade is installed next to the site.

Regarding professional's health, Bracell centralizes the management of health monitoring and response. A communication network was introduced to prevent and remedy potential problems. It provides landline and cell phone numbers, Whatsapp, radio, and informational murals.

Bracell also requires that outsourced professionals be covered with health insurance.

There is also a plan to prevent: work-related illnesses (occupational health medical control program under the standards of physical and intellectual analysis, and complementary exams); community diseases (with data verification in a daily attendance report, to assess possible endemic and acute cases and their frequencies); chronic diseases (which includes analysis of monthly data and action strategies); and endemics, epidemics and infectious diseases (including data analysis of possible damage to global, national, state and municipal health).

Respect for communities

GRI 103I413, 412-1, 413-1, 413-2

The dialogue with communities surrounding Project Star is an essential tool for a respectful and lasting relationship. The company is committed to keep open channels to meet demands and to receive suggestions, criticisms, or even complaints related to its operations.

One of the main channels is the telephone 0800 709 1490, receiving free calls made from landlines or cell phones. The company's website also offers contact. Operational Dialogues are also maintained, to receive any complaints that can be made personally to Bracell employees.

A Preventive Archeology Study was also carried out to preserve cultural heritage in the region. No evidence of archaeological materials in the Project Star site were found, but on the banks of The Tietê River, where water is withdrawn, there were fragments of archaeological materials. To prevent any damage, the Archaeological Heritage Management Program was created, setting procedures for the rescue and curation of the archaeological materials found. Equity

education actions were also carried out, following the guidelines established by the National Historical and Artistic Heritage Institute (Iphan).

Finally, to protect the communities of the surrounding municipalities, other actions are being taken:

- A mandatory health plan or medical insurance for contracted companies to avoid that urgent, emergency, and any additional care, be covered by the public municipal health services, so as not to increase the flow of patients in SUS (the public system) (GRI 403-8);



Silmara Tenório, employee of Bracell São Paulo.

- Creation of the Tripartite Health Committee, with representatives from the Project Star and the health areas of the community and the municipality of Lençóis Paulista. The agency discusses and interprets city data to serve as a ground to control campaigns and actions. (GRI 403-7);
- Inspection and control to the release of equipment and circulation of buses, vehicles, and trucks used at the site, monitoring black smoke, checking the operation of tachographs, and preventive maintenance plans, among others.

GRI Content Summary

GRI 102-55



GRI Standard	Disclosure	Page/URL	Omission	Sustainable Development Goals
GENERAL DISCLOSURE				
Organizational profile				
GRI 102: General disclosure 2016	102-1 Organization name	Bracell Holding Limited, with the divisions: Bahia Specialty Cellulose S.A. e Bracell SP Celulose Ltda.		
	102-2 Activities, brands, products and services	19, 25		
	102-3 Location of headquarters	19		
	102-4 Location of Operations	19		
	102-5 Ownership and legal form	Bracell Limited is a subsidiary of the RGE Group. Bracell Bahia is a public limited company. Bracell São Paulo is a Limited Liability Company.		
	102-6 Markets served	19, 25, 89		
	102-7 Scale of the organization	Bracell has not released its financial statements since it became privately held. More details on page 19.		
	102-8 Information on employees and other workers.	Number of direct employees was calculated considering position on 12/31/2019. The number of outsourced workers represents the average number of third parties hired in 2019 in Bahia and São Paulo, in the industrial and forestry areas. More details on pages 30 and 31.		8, 10
	102-9 Supply chain	63		
	102-10 Major changes in company structure during the period covered	19, 21, 60		
	102-11 Explanation of if and how the organization applies the precautionary principle	66, 67, 70		
	102-12 Letters, principles or other externally developed initiatives regarding economic, environmental and social topics, that the organization subscribe or endorse	87		
	102-13 Main participation in national/international associations and/or bodies	62		

GRI Standard	Disclosure	Page/URL	Omission	Sustainable Development Goals
GENERAL DISCLOSURE				
Strategy				
GRI 102: General disclosure 2016	102-14 Statement from senior decision-maker	6		
	102-15 Main impacts, risks and opportunities	6		
Ethics and Integrity				
GRI 102: General disclosure 2016	102-16 Values, principles, standards and norms of behavior	28		16
Governance				
GRI 102: General disclosure 2016	102-18 Governance structure	56, 60		
Stakeholders' engagement				
GRI 102: General disclosure 2016	102-40 Stakeholders groups	12, 13, 112, 113		
	102-41 Collective bargaining agreements	100% of Bracell's employees in São Paulo are covered by collective bargaining agreements, as well as at Bracell Bahia, except executives (manager and above) - these positions follow specific salary and benefit policies.		8
	102-42 Identification and selection of stakeholders	12, 13		
	102-43 Approach to stakeholder engagement	Besides the content indicated, Bracell holds meetings with communities, the municipal government, the state government and sector institutions. More details on pages 12, 13 and 46.		
	102-44 Key topics and concerns raised during engagement	Before impacting business activity begins, Bracell identifies possible impacts and carries out preventive or mitigating measures through the "Operational Dialogue with communities". More details on pages 12 and 46.		
Reporting practices				
GRI 102: General disclosure 2016	102-45 Entities included in the consolidated financial statements	Bracell has not released its financial statements since it became privately held.		
	102-46 Defining report content and topic boundaries	12		

GRI Standard	Disclosure	Page/URL	Omission	Sustainable Development Goals
GENERAL DISCLOSURE				
	102-47 List of material topics	12		
	102-48 Restatements of information	<p>It is important to note that Bracell is considering the year 2019 as its new baseline, since 2019 highlights the birth of the Bracell brand, with the Bahia and São Paulo units operating together for the first time. Also, the reporting process was carried out to be more robust concerning the GRI guidelines, in addition to being assured by an independent company.</p> <p>Some data from Bracell Bahia previously reported separately, such as Bracell Bahia Industrial (referring to the Camaçari / BA industrial unit) and Bracell Bahia Florestal (referring to the Alagoinhas / BA forestry unit), were consolidated in the 2019 report, and are reported like 'Bracell Bahia.'</p> <p>All exchange rate considered the following: R\$ 5.17 for each USD 1.00 (Brazilian Real to US Dollar).</p>		
GRI 102: General disclosure 2016	102-49 Changes to list of topics and topic boundaries	13		
	102-50 Reporting period	11		
	102-51 Date of most recent report	11		
	102-52 Reporting cycle	Annual		
	102-53 Contact point for questions relating to the report	11		
	102-54 Claims of reporting in accordance with the GRI Standards	11		
	102-55 Content index	122		
	102-56 External verification warranty	For the first time, Bracell's Sustainability Report was assured - the process was conducted by SGS (more details on page 16).		

GRI Standard	Disclosure	Page/URL	Omission	Sustainable Development Goals
MATERIAL TOPICS				
Economic performance				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	12, 40		
	103-2 The management approach and its component	40		
	103-3 Evaluation of the management form	40		
GRI 201: Economic Performance 2016	201-3 Defined benefit plan obligations and other retirement plans	40		
Market presence				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	12, 21		
	103-2 The management approach and its component	21		
	103-3 Evaluation of the management form	21		
GRI 202: Market Presence 2016	202-1 Ratios of standard entry level wage by gender compared to local minimum wage	40		1, 5, 8
	202-2 Proportion of senior management hired from the local Community	31		8
Indirect economic impacts				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	12, 24		
	103-2 The management approach and its component	24		
	103-3 Evaluation of the management form	24		
GRI 203: Indirect Economic Impacts 2016	203-1 Infrastructure investments and services supported	45, 72, 108		5, 9, 11
	203-2 Significant indirect economic impacts	45, 108, 113		1, 3, 8

GRI Standard	Disclosure	Page/URL	Omission	Sustainable Development Goals
MATERIAL TOPICS				
Procurement practices				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	12, 63		
	103-2 The management approach and its component	63		
	103-3 Evaluation of the management form	63		
GRI 204: Procurement Practices 2016	204-1 Proportion of spending on local suppliers	63		8
Anticorruption				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	12, 58		
	103-2 The management approach and its component	58		
	103-3 Evaluation of the management form	58		
GRI 205: Anticorruption 2016	205-2 Communication and Training in AntiCorruption Policies and Procedures	58, 64		16
	205-3 Confirmed cases of corruption and measures taken	<p>In 2019, Bracell received seven complaints regarding Brazilian operations (through Bracell Escuta). After investigation conducted by the Internal Audit area, five were assessed as founded, receiving the appropriate treatment, including the feedback report to Singapore. The other cases analysed were not related to human rights violations and discrimination by Bracell or its service suppliers.</p> <p>There were two cases of corruption at Bracell Bahia, in 2019. In the first event, the internal audit found a violation in the relationship between an employee and a supplier, resulting in the employee's dismissal and in measures to prevent new occurrences. In the second, it was found that a Bracell employee had a company and provided services to the organization. The professional was laid off and the services canceled.</p>		16

GRI Standard	Disclosure	Page/URL	Omission	Sustainable Development Goals
MATERIAL TOPICS				
Anticompetitive behavior				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	12, 63		
	103-2 The management approach and its component	63		
	103-3 Evaluation of the management form	63		
GRI 206: AntiCompetitive Behavior 2016	206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	58		16
Energy				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	12, 86		
	103-2 The management approach and its component	86		
	103-3 Evaluation of the management form	86		
GRI 302: Energy 2016	302-1 Energy consumption within the organization	86		7, 8, 12, 13
	302-4 Reducion in Energy consumption	86		7, 8, 12, 13

GRI Standard	Disclosure	Page/URL	Omission	Sustainable Development Goals
MATERIAL TOPICS				
Water				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	12, 79, 81		
	103-2 The management approach and its component	79, 81		
	103-3 Evaluation of the management form	79, 81		
GRI 303: Water 2016	303-3 Water recycled and reused	79		6, 8, 12
GRI 303: Water and effluents 2018	303-1: Interactions with water as a shared resource	79		
	303-2: Management of water discharge-related impacts (pp81)	81		
	303-4 Water withdrawal	81		6
Biodiversity				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	12, 92		
	103-2 The management approach and its component	92		
	103-3 Evaluation of the management form	92		
GRI 304: Biodiversity 2016	304-1 Operating units own, leased or administered within or adjacencies of protected areas and areas of high biodiversity located outside protected areas	19		6, 14, 15
	304-3 Habitats protected or restored	69, 96		6, 14, 15
	304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations	92, 97, 99		6, 14, 15

GRI Standard	Disclosure	Page/URL	Omission	Sustainable Development Goals
MATERIAL TOPICS				
Emissions				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	12, 102		
	103-2 The management approach and its component	102		
	103-3 Evaluation of the management form	102		
GRI 305: Emissions 2016	305-1 Direct (scope 1) GHG emissions	103		3, 12, 13, 14, 15
	305-2 Indirect emissions of greenhouse gases (GHG) from energy acquisitions (scope 2)	103		3, 12, 13, 14, 15
	305-3 Other indirect emissions of greenhouse gases (Scope 3)	Bracell does not calculate other indirect emissions (scope 3) in its greenhouse gas inventories.		3, 12, 13, 14, 15
	305-4 Greenhouse gas emissions (GHG) intensity	103, 106, 109		13, 14, 15
Effluents and waste				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	12, 82		
	103-2 The management approach and its component	82		
	103-3 Evaluation of the management form	82		
GRI 306: Effluents and Waste 2016	306-2 Waste by type and disposal method	82		3, 6, 12
	306-4 Transport of hazardous waste	82		3, 12
Environmental compliance				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	12, 65		
	103-2 The management approach and its component	65		
	103-3 Evaluation of the management form	65		

GRI Standard	Disclosure	Page/URL	Omission	Sustainable Development Goals
MATERIAL TOPICS				
GRI 307: Environmental Compliance 2016	307-1 Non-compliance with environmental laws and regulations	In 2018, both in the national and international judicial or administrative spheres, Bracell was not subject to lawsuits due to non-compliance with significant environmental laws and regulations for mention.		16
Supplier environmental assessment				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	12, 63		
	103-2 The management approach and its component	63		
	103-3 Evaluation of the management form	63		
GRI 308: Supplier Environmental Assessment 2016	308-1 New suppliers that were screened using environmental criteria	64		
Employment				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	12, 30		
	103-2 The management approach and its component	30		
	103-3 Evaluation of the management form	30		
GRI 401: Employment 2016	401-1 New employee hires and turnover	31		5, 8, 10
	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	40		3, 5, 8
Labor relations				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	12, 30		
	103-2 The management approach and its component	30		
	103-3 Evaluation of the management form	30		

GRI Standard	Disclosure	Page/URL	Omission	Sustainable Development Goals
MATERIAL TOPICS				
GRI 402: Labor / Management Relations	402-1 Minimum notice periods regarding operational changes	There is no formal minimum notice period for operational changes. However, the company maintains a frequent dialogue with its professionals and employees' representative entities, so that eventual operational changes are communicated in due time.		8
Occupational health and safety				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	12, 41		
	103-2 The management approach and its component	41		
	103-3 Evaluation of the management form	41		
GRI 403: Occupational Health and Safety 2016	403-1 Workers representation in formal joint management-worker health and safety committees	41		8
	403-2 Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	41		3, 8
	403-3 Workers with high incidence or high risk of diseases related to their occupation	41		3, 8
	403-4 Health and safety topics covered in formal agreements with trade unions	41		8

GRI Standard	Disclosure	Page/URL	Omission	Sustainable Development Goals
MATERIAL TOPICS				
GRI 403: Occupational Health and Safety 2018	403-4 Employee participation, consultation and communication on occupational health and safety	41		8, 16
	403-5 Worker training on occupational health and safety	41		8
	403-6 Promotion of worker health	41		3
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	41		8
	403-8 Workers covered by an occupational health and safety management system	41		8
	403-9 Work-related Injuries 1	41		3, 8, 16
	403-10 Work-related diseases	41		
Training and education				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	12, 36		
	103-2 The management approach and its component	36		
	103-3 Evaluation of the management form	36		
GRI 404: Training and Education 2016	404-1 Average hours of training per year per employee	36, 41		4, 5, 8, 10
	404-3 Percentage of employees receiving regular performance and career development reviews	29, 39		5, 8, 10
Diversity and equal opportunity				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	12, 30		
	103-2 The management approach and its component	30		
	103-3 Evaluation of the management form	30		

GRI Standard	Disclosure	Page/URL	Omission	Sustainable Development Goals
MATERIAL TOPICS				
GRI 405: Diversity and equal opportunity 2016	405-1 Diversity of governance bodies and employees	Bracell chose not to disclose data on minorities and vulnerable groups, since its goal for 2020 is to carry out a diagnosis and planning of a corporate diversity and inclusion program. More details on pages 30 and 31.		5, 8
Non-discrimination				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	12, 58		
	103-2 The management approach and its component	58		
	103-3 Evaluation of the management form	58		
GRI 406: Non-discrimination	406-1 Incidents of discrimination and corrective actions taken	No reported cases, lawsuits or complaints formally registered via HR, Bracell Escuta or 0800, of discrimination at Bracell.		5, 8
Freedom of association and collective bargaining				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	12, 63		
	103-2 The management approach and its component	63		
	103-3 Evaluation of the management form	63		
GRI 407: Freedom of association and collective bargaining 2016	407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	Bracell has not identified operations and suppliers that have jeopardized freedom of association and collective bargaining.		8
Child labor				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	12, 63		
	103-2 The management approach and its component	120		
	103-3 Evaluation of the management form	63		

GRI Standard	Disclosure	Page/URL	Omission	Sustainable Development Goals
MATERIAL TOPICS				
GRI 408: Child labor 2016	408-1 Operations and suppliers at significant risk for incidents of child labor	Bracell has not identified operations and suppliers at risk of child labor incidents. More details on pages 63 and 64.		8, 16
Forced or compulsory labor				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	12, 63		
	103-2 The management approach and its component	63		
	103-3 Evaluation of the management form	63		
GRI 409: Forced or Compulsory Labor 2016	409-1 Operations and suppliers with significant risk for the occurrence of forced or compulsory labor	Bracell has not identified operations and suppliers at risk of compulsory work incidents. More details on pages 63 and 64.		8
Security practices				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	12, 90		
	103-2 The management approach and its component	63		
	103-3 Evaluation of the management form	90		
GRI 410: Security Practices 2016	410-1 Security personnel trained in human rights policies or procedures	90, 91		16
Rights of indigenous people				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	12, 120		
	103-2 The management approach and its component	120		
	103-3 Evaluation of the management form	120		

GRI Standard	Disclosure	Page/URL	Omission	Sustainable Development Goals
MATERIAL TOPICS				
GRI 411: Management approach disclosures 2016	411-1 Incidents of violations involving rights of indigenous peoples	No presence of indigenous peoples in our area of activity in the state of Bahia.		2
Human rights assessment				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	12, 58		
	103-2 The management approach and its component	58		
	103-3 Evaluation of the management form	58		
GRI 412: Human rights assessment 2016	412-1 Operations that have been subject to human rights reviews or impact assessments	46, 63, 120		
	412-2 Total number of employee training hours regarding human rights or procedures related to human rights matters material to the Organization's operations, including the percentage of trained employees	Bracell only conducted human rights training for its Property Security employees. For more information, see indicator 410-1.		
	412-3 Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	In 2019, 75% (21 out of a total of 28) of all loan, financing, sureties, and letters of credit contracts entered into for the benefit of Bracell or in effect during the year, contained human rights clauses. None of them has undergone a human rights assessment. More details on pages 58 and 63.		
Local communities				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	12, 120		
	103-2 The management approach and its component	120		
	103-3 Evaluation of the management form	120		

GRI Standard	Disclosure	Page/URL	Omission	Sustainable Development Goals
MATERIAL TOPICS				
GRI 413: Local Communities 2016	413-1 Operations with local community engagement, impact assessments and development programs	45, 120		
	413-2 Operations with significant actual and potential negative impacts on local communities	45, 59, 72, 120		1, 2
Supplier social assessment				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	12, 63		
	103-2 The management approach and its component	63		
	103-2 The management approach and its component	63		
GRI 414: Supplier Social Assessment 2016	414-1 New suppliers that were screened using social criteria	Bracell requires 100% compliance with labor, social security, and tax obligations, among others, in the selection of its partners and / or in the course of contracts, maintaining formal procedures to verify compliance with good practices.		5, 8, 16
	414-2 Negative social impacts in the supply chain and actions taken	63		5, 8, 16
Public policy				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	12, 58		
	103-2 The management approach and its component	58		
	103-3 Evaluation of the management form	58		
GRI 415: Public Policy 2016	415-1 Political contributions	Bracell does not make political contributions.		16

GRI Standard	Disclosure	Page/URL	Omission	Sustainable Development Goals
MATERIAL TOPICS				
Customer health and safety				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	12, 89		
	103-2 The management approach and its component	89		
	103-3 Evaluation of the management form	89		
GRI 416: Customer Health and Safety 2016	416-1 Assessment of the health and safety impacts of product and service categories	Studies on the impacts of products / services on health and safety are not carried out, since cellulose is an organic material that does not present potential risks to customers.		
	416-2 Incidents of non-compliance concerning the health and safety impacts of products and services	89		16
Marketing and labeling				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	12, 89		
	103-2 The management approach and its component	89		
	103-3 Evaluation of the management form	89		
GRI 417: Marketing and Labeling 2016	417-1 Requirements for product and service information and labeling	89		12
	417-2 Incidents of non-compliance concerning product and service information and labeling	89		16

GRI Standard	Disclosure	Page/URL	Omission	Sustainable Development Goals
MATERIAL TOPICS				
Customer privacy				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	12, 58		
	103-2 The management approach and its component	58		
	103-3 Evaluation of the management form	58		
GRI 418: Customer Privacy 2016	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	<p>There were no complaints about breaches of privacy or loss of customer data at Bracell. The company works with the confidentiality of all data and technical and commercial information regarding customers, not sharing information with third parties.</p> <p>The Bracell Code of Conduct has a chapter related to the confidentiality of information of the company, RGE companies, competitors, and business partners, with specific guidelines concerning the theme.</p>		16
Socio-economic compliance				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its boundary	12, 58		
	103-2 The management approach and its component	58		
	103-3 Evaluation of the management form	58		
GRI 419: Socio-economic compliance 2016	419-1 Non-compliance with laws and regulations in the social and economic area	58		16

SUSTAINABLE DEVELOPMENT GOALS

1. No poverty
2. Zero hunger
3. Good health and well-being
4. Quality Education
5. Gender equality
6. Clean water and sanitation
7. Affordable and clean energy
8. Decent work and economic growth
9. Industry, innovation and infrastrucutre
10. Reduced inequalities
11. Sustainable cities and communities
12. Responsible consumption and production
13. Climate action
14. Life below water
15. Life on land
16. Peace, justice and strong institutions
17. Partnerships for the goals

Credits

Coordination

Bracell - Corporate Relations, Communications
and Sustainability Department

GRI consultancy, design and editorial coordination

Grupo Report - [rpt.sustentabilidade
gruporeport.com.br/unidades](http://rpt.sustentabilidade.gruporeport.com.br/unidades)

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