



# SUSTAINABILITY REPORT 2022

COMPLEMENTARY INFORMATION



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# 1.

## MESSAGE FROM THE CHAIRMAN OF THE BOARD OF DIRECTORS

[GRI 2-22]

The year 2022 was a historic milestone for Suzano. After intense international mobilization, it looks like we have overcome the COVID-19 pandemic and survived a very challenging macroeconomic environment, marked by the disruption of global production chains, inflationary pressure and high interest rates that affected even well-structured economies and companies. For this reason, we are proud that Suzano achieved excellent financial and operational results in the year and that it also established itself as a leader of the changes we seek to make the planet a better place for both people and nature.

Suzano has increasingly pursued sustainable solutions for the complex and urgent problems of today and the future. It does so through a competent, responsible and committed team, proving that companies are made of and by people, and that people are the engine behind the evolution of any organization. I would like to personally thank our 42,000 direct and indirect employees who remain committed to making a difference and working in partnership with the

various stakeholders with whom we connect to generate and share value.

We have more good reasons to celebrate. We advanced, as planned, the construction of our new plant in Ribas do Rio Pardo, in Mato Grosso do Sul — the Cerrado Project. Thanks to good planning and management and strict compliance, we were able to meet our goals for the year, working together with local authorities and our contractors. We continued on our journey of innovability, researching and developing new products and services based on renewable sources, contributing to the decarbonization of the economy.

In the sustainability area, we started implementing three biodiversity conservation corridors, the most ambitious project of its kind undertaken by any company worldwide. Suzano has another important attribute: the ability to work in partnership, engaging different stakeholders (governments, NGOs and civil society) toward a common goal. We know that

the sustainability agenda requires collaboration and teamwork. Therefore, by working in a cooperative and innovative manner, we will be able to produce effective and sustainable solutions at the speed society needs.

Our movement to drive the bioeconomy is supported by robust and responsible governance. Starting in 2022, half of our Board of Directors were independent directors — people who are opinion leaders in their areas and help us see beyond the status quo, pushing Suzano forward. Furthermore, since we recognize the importance and benefits of diverse and inclusive groups, we are working to increase diversity and inclusion in all areas of the company, including our Board of Directors. As an example, we note the increase in female participation on the Board: one third of our directors are women.

As we approach celebrating one century of history, our strong and gentle dual-natured way of working — strong in terms of our results and resilience, and gentle toward people and nature

— continues to guide our steps and reinforces our belief that dual-natured businesses will be the ones that will prosper in the long term. One way Suzano demonstrates this dual nature is by defining and broadly communicating our long-term vision, with well-established strategic avenues, while also pursuing and ensuring excellent short-term performance.

Together, we will continue to create a more sustainable future, while investing heavily in green technologies and biosolutions. We invite readers of this report to participate in this journey toward the bioeconomy. There are many ways to improve the world and each of us has a part to play. Rethinking our choices is part of this process. Repeated choices become habits, and sustainable habits will create the bioconsumers that will drive and sustain the bioeconomy. This future is only achievable through cooperation among bioconsumers who recognize their role on this planet.

**David Feffer** | Chairman, Board of Directors, Suzano



# MESSAGE FROM OUR CEO

[GRI 2-22]

## CHOICES THAT PLANT THE FUTURE

In 2022, we experienced a relevant and very fruitful year in the history of Suzano. Despite the challenging global environment, at a time when the world is still recovering from the COVID-19 pandemic and feeling the impacts of the Russia-Ukraine war, we reached significant financial records and made important progress regarding our strategic agenda. Consequently, we delivered a combination of good results, with a R\$28.2 billion adjusted EBITDA, and increased ability to generate and share value with our stakeholders.

Our company is in constant transformation and evolution. We started the largest forest formation program in the world, planting approximately 1.2 million seedlings per day, seeking to increase operational efficiency and reduce dependence on third-party wood in the long term.

In the industrial area, we modernized the Aracruz and Jacaré plants, bringing more competitiveness to our system. We are taking steps to increase our relevance in the pulp market, including R\$7.4 billion in investment directed this year to the Cerrado Project, in Mato Grosso do Sul, which, when it starts operations in 2024, will be the most competitive of our units — which are already the most competitive in the world.

Our purpose is “Renewing life inspired by trees”, and we see trees as a universe of biopossibilities to plant a more sustainable future. We invest in new areas

of the bioeconomy, which tend to grow with the advancement of decarbonization around the world.

With this in mind, our expansion into new businesses was demonstrated by the construction of plants in Brazil and Finland to process microfibrillated cellulose (MFC), a raw material to produce 100% renewable fiber that has the potential to transform the global textile market, among other applications. Our initiatives to drive diversification and the circular economy also include lignin and bio-oil. The launch of Suzano Ventures also points in this same direction and has US\$70 million available for investments in startups, with a focus on entrepreneurship around bioeconomic solutions based on planted eucalyptus.

We made progress in our long term targets related to our Commitments to Renewing Life, which are aligned with our engagement with the UN Global Compact and Sustainable Development Goals. We are close to 30,000 people lifted out of the poverty line since 2020, offering a better quality of life to people in the communities where we operate. We improved our diversity indicators among our employees, with 23.6% of our leadership positions being occupied by women and 20.9% by Black people. We made progress regarding our targets, albeit at a slower pace than we had anticipated, which is a challenge to overcome. As for safety, a non-negotiable value for us, we achieved all time positive results in accident frequency and severity rates.

In the environmental area, in 2022 we planted the first stretches of three ecological corridors that will connect half a million hectares of priority areas for the conservation of biodiversity. We launched Biomas, a partnership with Marfrig, Vale and Itaú Unibanco, Rabobank and Santander banks. Biomas was born with the mission of restoring and preserving 4 million hectares of degraded areas, which is equivalent to the area of Switzerland. Also important was our progress in eco-efficiency compared to 2021, with a reduction of 11.5% in the volume of waste sent to landfills and of 1.5% in water collection in industrial operations.

Our guideline is to reinvest 90% of our operating cash generation to open new pathways for proper capital allocation. We invested R\$ 16.3 billion in our operations — 157% more than in 2021. This is a clear demonstration of our commitment to business growth and competitiveness.

We want to see collective engagement to solve urgent environmental, social and economic issues. We are convinced that a company can only remain strong and competitive when its business decisions consider all of its stakeholders—as well as the environment—and when it engages them in the creation of a more sustainable future. This is a game where either everybody wins, or everybody loses. That is why we all have to work together.

**Walter Schalka** | CEO of Suzano



“  
Our purpose is  
‘Renewing life  
inspired by trees’,  
and we see trees  
as a universe of  
biopossibilities  
to plant a more  
sustainable future.”



2.

Employee at  
the Limeira Unit

Photo: Fernando Cavalcanti



ABOUT

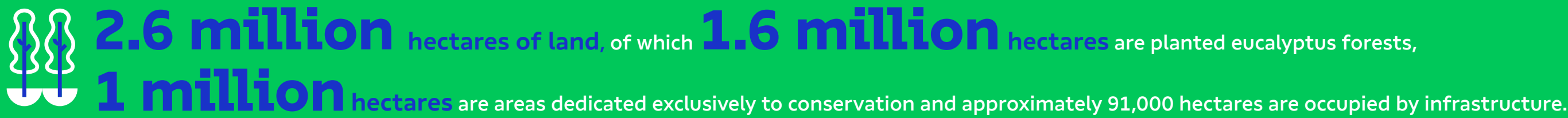
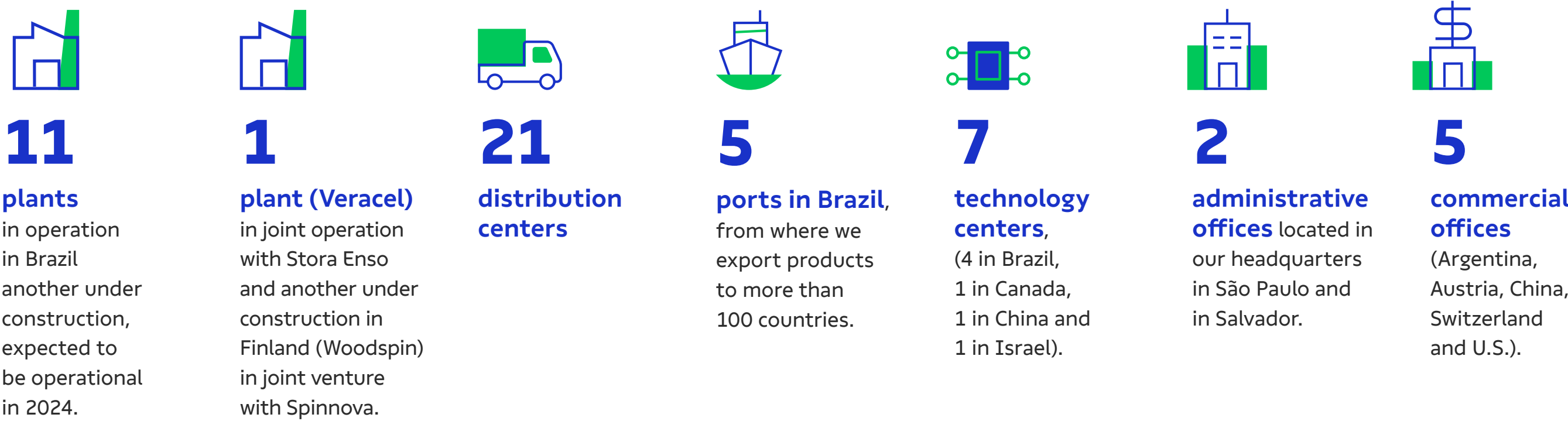
SUZANO



# WHO WE ARE [GRI 2-1]

## SETTING THE BENCHMARK IN BIOPRODUCTS

We are Suzano S.A., a world leader in hardwood pulp production, setting a benchmark in bioproducts. We are guided by our purpose of “Renewing life inspired by trees.” The following numbers illustrate the scale of our business:



Our core business is pulp, a product from a renewable source. We have two other production areas: Paper and Packaging, and Consumer Goods. The New Business area operates in several categories, focused on continuing our history of innovability, which means pursuing sustainability through innovation.

Our roots are strong: for 99 years we have been at the forefront of knowledge about eucalyptus planting and cultivation. Our planted areas are at the origin of products that are essential in the daily lives of more than 2 billion people: hygiene items, paper for packaging and utensils, paper for printing and writing, and countless other products that expand the offer of renewable alternatives for people’s needs.

## MAIN BRANDS

### PULP

**PULP:** Suzano®  
**FLUFF PULP:** Eucafluff®

### PAPER AND PACKAGING

**PAPERBOARD:** Supremo Alta Alvura®, TP White Plus® and Super 6 Plus®  
**UNCOATED PAPER:** Pólen®, Pólen Natural®, Alta Alvura®, Reciclato®, Paperfect® and Prisma Bright® (export only)  
**COATED PAPER:** Couché Suzano®, Couché Fit®, Couché Design® and Couché Press®  
**CUT SIZE PAPER:** Report® (domestic market only); Artwork®, Eclipse® and One® (export only)  
**PACKAGING PAPER** (coated or uncoated): Bluecup®, Greenpack® (for flexible packaging), Loop® (for straw production), Greenbag® (for retail bags, with optimal tearing, ripping and roughness properties), LIN Suzano® (ached paper for cardboard boxes)

### CONSUMER GOODS

**TOILET PAPER:** Mimmo®, Floral®, La Vie Blanc® and Max Pure®  
**WET WIPES:** Mimmo®  
**PAPER TOWEL AND NAPKIN:** Scala®  
**DIAPER:** Maxx Baby®

### BIOCOMPOSITES

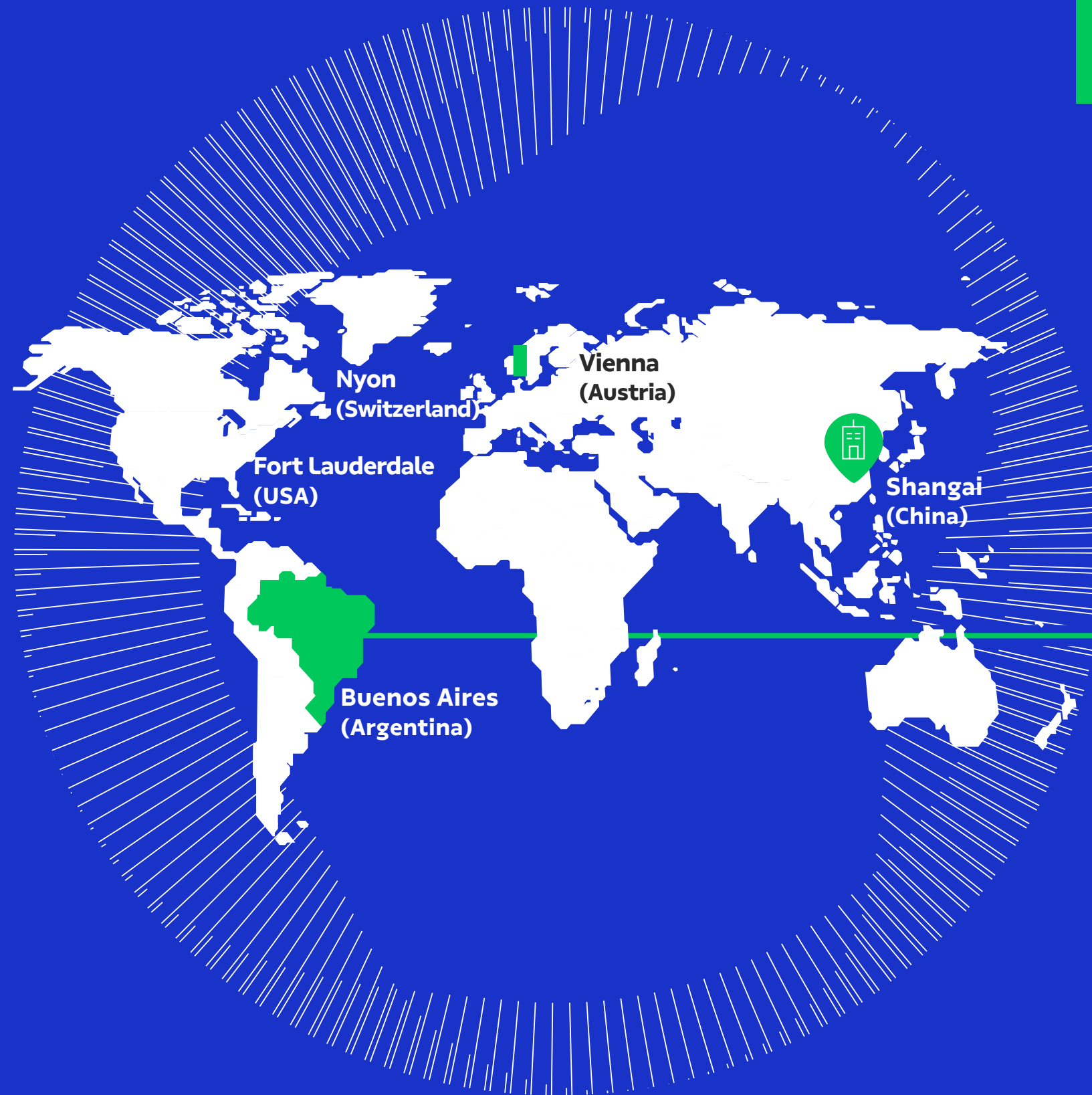
**LIGNIN:** Ecolig®



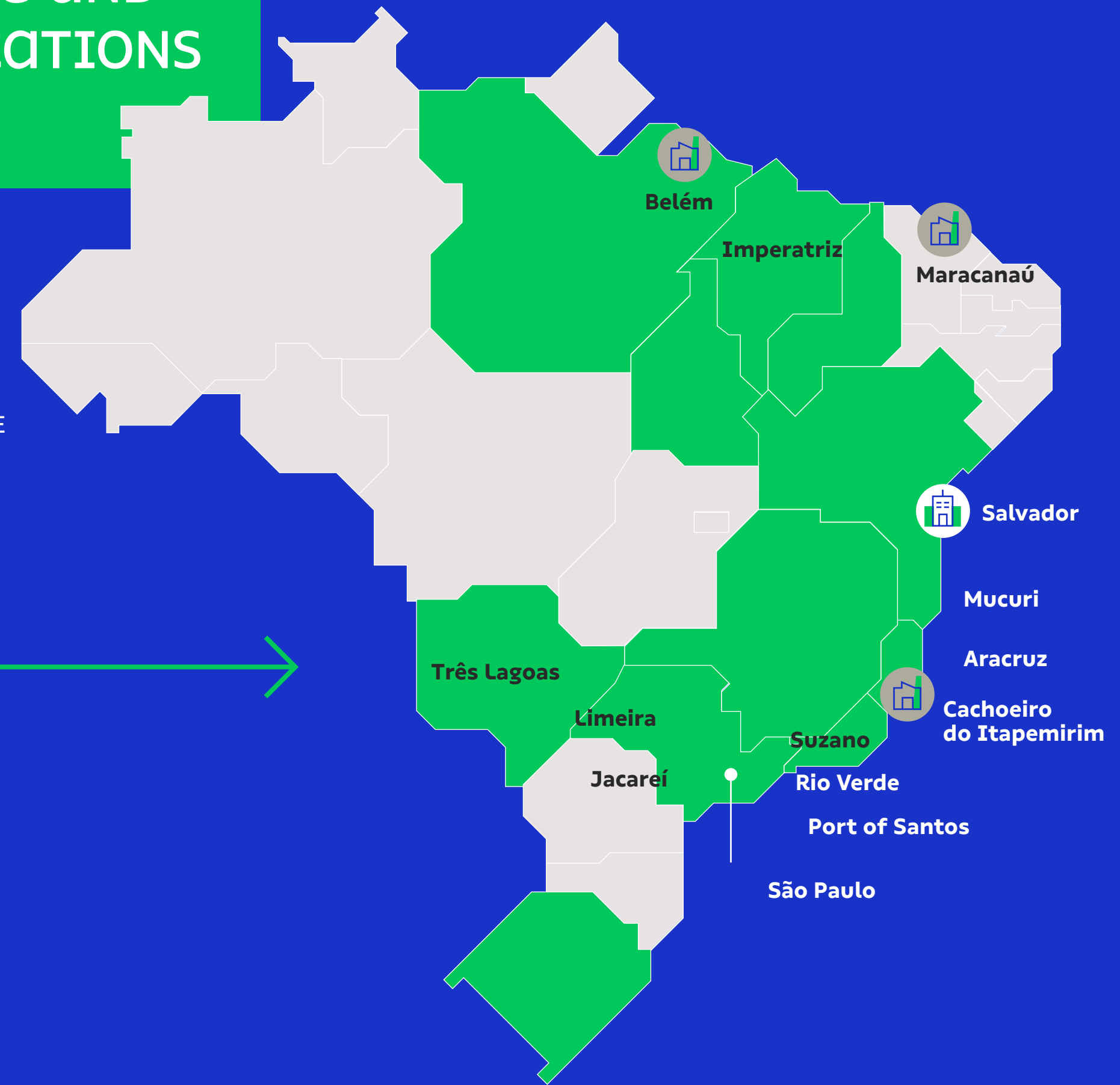


# GLOBAL PRESENCE AND CERTIFICATIONS

[GRI 2-1]



-  FOREST BASE
-  PLANTS
-  OFFICES



**FSC® chain of custody license codes:**

- <sup>1</sup> CoC FSC®: FSC-C012430
- <sup>2</sup> CoC FSC®: FSC-C010014
- <sup>3</sup> Stenfar and Distributors: FSC®-C003231



# BUSINESS PERFORMANCE

[GRI 2-1]

In 2022:

**93%** of our pulp was sold to international markets.

Pulp is our main product and accounted for

**83%** of our net revenue.

PAPER &amp; OTHERS:

**17%** of net revenue.



Photo: Fernando Cavalcanti

Employee at the Rio Verde Unit

Our paper products are sold to a diversified customer base that includes printers, publishers, converters and distributors for the production of promotional and non-promotional materials, notebooks, high-quality packaging and art books, among other products.

Our paperboard is sold primarily for packaging (tubes, straps, envelopes and others). In recent years, we entered the disposable cup business with our Bluecup® family. In the uncoated paper segment, our main customer is the publishing market, which includes educational materials and textbooks, and non-educational products, such as books and notebooks. Other important markets for us are cut-size, printing and writing paper, through an extensive portfolio of shapes and grammages, with an emphasis on the premium brand Report®. In the coated paper market, we are the only producer of *couché* paper in Brazil.

Our Consumer Goods unit focuses on tissue products, which include primarily toilet paper, paper towels and napkins.





# 2022 HIGHLIGHTS

[GRI 2-1]



## FINANCIAL CAPITAL

**R\$ 49.8 billion**  
net revenue

**R\$ 28.2 billion**  
adjusted Ebitda

**R\$ 22.6 billion**  
operating cash flow

**39%**  
of debt linked to  
sustainability commitments

**R\$ 38.9 billion**  
value added

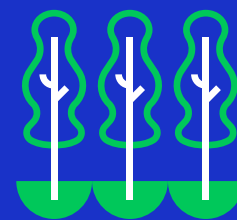


## MANUFACTURED CAPITAL

**R\$ 16.3 billion**  
in investments (Capex)

**10.9 million**  
tons installed pulp capacity

**1.4 million**  
ton installed paper capacity



## NATURAL CAPITAL

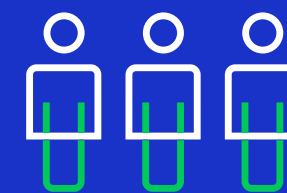
**2.6 million**  
hectares of land, of which

**1 million**  
hectares are dedicated  
to conservation

**93,594**  
hectares of High  
Conservation  
Value Areas (HCVAs)

**22 million**  
tCO<sub>2</sub>e removed from the  
atmosphere since 2020

**88%**  
renewable energy sources



## HUMAN CAPITAL

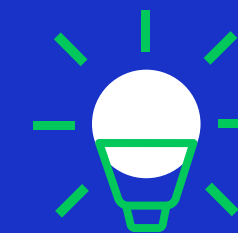
**18,543**  
company employees

**24,132**  
contracted employees

**23.6%**  
of leadership positions  
occupied by women

**20.9%**  
of leadership positions  
occupied by Black employees

**755,000**  
hours dedicated to training  
and development



## INTELECTUAL CAPITAL

**112**  
projects being developed

**65**  
registered patents



## SOCIAL AND RELATIONSHIP CAPITAL

**276,000**  
people benefited from social  
development programs

**29,633**  
people lifted from  
poverty since 2020

**32**  
*Voluntariar*  
(volunteering initiatives)





## AWARDS AND RECOGNITIONS

The main distinctions we received in 2022 were the following:



### Gold Medal EcoVadis Sustainability Rating 2022

With a score of 69, we ranked in the top 6% of more than 85,000 companies evaluated globally.



### Top 10% in the S&P Global's Sustainability Yearbook

We were among the best companies in the S&P Global's Sustainability Yearbook, in the Paper and Forest Products sector, which ranks companies based on their committed to sustainability and determines the Dow Jones Sustainability Index (DJSI).

#### ESG Responsibility



First-place award in the Wood, Paper and Pulp category, based on an annual survey by Merco with 3,865 participants.  
**2<sup>nd</sup> consecutive year**

#### GlobeScan Sustainability Leaders 2022



We were one of the 17 most recognized global companies for integrating sustainability into its business strategy. The list was compiled based on responses from 718 sustainability experts from over 70 countries.

#### The Worldwide Open Innovation



We were one of 50 companies worldwide recognized by the International Chamber of Commerce and Mind The Bridge for international best practices in open innovation.

#### ESG Model Enterprise Award



At the 2022 International Green Zero-Carbon Festival in Beijing, we were recognized as a model enterprise for our contributions in the areas of green energy, carbon emissions reduction, technology innovation and environmental protection.

#### External Business Partner of the Year



We were the only Latin American company of the six organizations recognized by Procter & Gamble for their commitment to sustainable performance models, among its more than 50,000 partners.

#### Valor Innovation



We were named the most innovative company in the pulp and paper sector by PwC Strategy& and the newspaper Valor Econômico. We also climbed three positions in the overall ranking, among 150 companies, to 15<sup>th</sup> place.  
**2<sup>nd</sup> consecutive year**

#### Top 100 Open Corps



We appeared in first place in the pulp and paper sector and second overall in the ranking published by 100 Open Startups, which recognizes companies with the most business relationships with startups.  
**2<sup>nd</sup> consecutive year**

#### ABTCP Awards



We were recognized by the Brazilian Pulp and Paper Technical Association in three categories: Sustainability, Innovation and Pulp Market.

#### Eco Awards



Our project Generation of Value through Diversity was recognized with the Eco 2022 Award, presented by the North American Chamber of Commerce in Brazil (AMCHAM).



A complete list of our awards can be found in our [Sustainability Center](#).





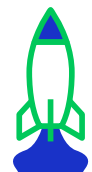


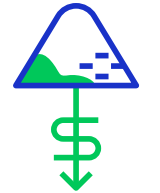
# LONG-TERM VISION

Our strategic vision recognizes that the future of our business depends on our ability to innovate and optimize the use of available resources and develop forest-based products beyond the pulp and paper industry. This vision aligns with our perception that the world is moving toward a bioeconomy, especially when it comes to replacing fossil-based products with ones from renewable sources. To fulfill our vision, we defined three goals based on where we want to be in 10 to 15 years and five strategic avenues that guide our efforts to ensure business success.

## GOALS

- 1** Continue to be an industry benchmark in efficiency, profitability and sustainability, from the forests to the customers.
- 2** Be a transforming agent in the expansion of our biomass into new markets.
- 3** Be a benchmark in sustainable and innovative solutions for the bioeconomy and environmental services, based on cultivated trees.

## STRATEGIC AVENUES

Key achievements in 2022	
 <b>Advance in the value chain, while maintaining a competitive advantage</b>	<ul style="list-style-type: none"> <li>Announcement of the acquisition of <b>Kimberly-Clark's</b> tissue business in Brazil. The transaction includes a plant located in Mogi das Cruzes with an annual installed capacity of 130,000 tons of tissue and the Neve brand.</li> <li>Progress in energy efficiency and completion of modernization projects at the Paper and Packaging units.</li> </ul>
 <b>Be bold in expanding into new markets</b>	<ul style="list-style-type: none"> <li>Creation of <b>Suzano Ventures</b>.</li> <li><b>Launch of Pólen Natural® paper</b>, produced using fewer chemical additives.</li> <li>Establishment of LIN®, bleached paper specially developed for use in cardboard boxes.</li> <li>Expansion of the innovation and packaging portfolio with Greenbag®.</li> <li>New product line with Greenpack® S heat-sealable paper, used to replaced plastic in the 12-pack Mimmo® toilet paper.</li> </ul>
 <b>Be a leader in sustainability</b>	<ul style="list-style-type: none"> <li>Progress related to the Commitments to Renewing Life. For example: <b>179.4 hectares of restoration for ecological corridors</b> in our protected areas in the <b>three focus biomes</b> of our Biodiversity commitment; progress in Diversity, Equity and Inclusion; and an additional <b>18,300 people lifted out of poverty</b>, totaling 29,600 since 2020.</li> <li>Inclusion in and improvement of the main ESG indexes and ratings. For example: <b>Sustainalytics – top 10% in the industry</b>; CDP – “A list” on the <b>Water</b> questionnaire and a high score of A- for Climate and Forests.</li> <li>Inclusion in The 2022 GlobeScan – SustainAbility Leaders Survey as one of 17 global companies recognized for integrating sustainability into business strategy.</li> <li>Creation of the company Biomas.</li> </ul>
 <b>Maintain relevance in pulp through good projects</b>	<ul style="list-style-type: none"> <li>All-time forest base expansion.</li> <li>Construction of the Cerrado Project: a R\$19.3 billion investment that will increase our pulp production capacity by approximately 20%.</li> </ul>
 <b>Be best-in-class in total pulp cost</b>	<ul style="list-style-type: none"> <li>Start of major industrial modernization construction projects to reduce cash costs in Jacareí and Aracruz, as well as the approval of the natural gas project in Imperatriz.</li> <li>1.2 million seedlings planted per day, totaling 265,000 hectares of new planted areas.</li> <li>All-time record operational stability.</li> </ul>



## CERRADO PROJECT: OUR MOST ECO-EFFICIENT PULP PLANT

### Ecoefficiency and Energy

Announced in May 2021, the new plant will incorporate the most advanced technologies in the industry. The ecodesign established at the project conception phase will ensure low consumption of raw materials, chemicals and water in the industrial process, and the circularity of the production process, eliminating the need to send industrial waste to landfills. The plant's unique features include the gasification of biomass to replace fossil fuels in lime kilns, reducing GHG emissions intensity. When the Cerrado plant becomes operational in the second half of 2024, it will be our most competitive plant in terms pulp production costs.

The new plant will also produce clean energy and will deliver an average 180 MW energy surplus that will be made available to the Brazilian grid — enough to power a city of 2.3 million residents for one month.

### Biodiversity and Ecosystem Services

The project will have a significant capacity to capture GHG from the atmosphere, thanks to its eucalyptus farms and the recomposition of native forests for conservation purposes. Planting is carried out in areas previously anthropized by other cultures, in line with our Wood Supply Policy and forest certification guidelines. Other social and environmental characteristics intrinsic to our forestry operations include chain-of-custody certification and traceability of all wood consumed.

We also plan to implement an ecological corridor in the Cerrado biome to connect more than 130,000 hectares of areas of high biodiversity value in the region, contributing to the protection and conservation of more than 1,000 species already mapped.

Photo: Thiago Senne Martins



Construction work on the Cerrado Project, a new pulp plant in Ribas do Rio Pardo



## Social Transformation

GRI 203-1 | SDG 5.4, 9.1, 9.4, 11.2

The Cerrado Project is driving social transformation in the region.

The Basic Environmental Plan (BEP) allocates R\$48 million for initiatives in the areas of health, education, housing, and public and traffic safety, including the expansion of the municipal hospital, the construction of low-income family homes, road improvements and the renovation of federal highway police and military police facilities in the region.

We also voluntarily approved a social development plan including 23 initiatives to strengthen education, promote regenerative agriculture and provide training for the workforce, among others, through an additional investment of close to R\$14 million. In the short term, we will map and access new markets for products from the region's socio-biodiversity chains and set up a network of collectors of native seeds for commercialization, in partnership with neighboring communities in the Ribas do Rio Pardo region. We offered professional training to local residents, helping to create jobs and generate income. In 2022, we worked together with the National Service of Industrial Learning (SENAI) to provide basic education to additional people through classes in civil construction, electricity, mechanics and carpentry.

To prevent sexual violence against children, adolescents and women, we have been working together with the local and state governments and civil institutions. Suzano's Agents for Good Program, created in 2021 together with the Court of Justice of Mato Grosso do Sul, promoted lectures, training and communication campaigns involving more than 3,000 workers. We also have support from Childhood Brasil, which engaged approximately 8,500 workers to act in defense and protection of the rights of children, adolescents and women. The program was supported by 19 companies that work in the Cerrado Project, and we carried out 364 awareness-raising activities with them at the construction site, totaling more than 38,000 hearing (a number that represents the sum of all the times the workers were impacted by the activities).

## INVESTMENTS

Capital investments (Capex) totaled R\$16.3 billion in 2022, a 157% increase over 2021, adding up to R\$39.7 billion in the last five years. The increase was primarily due to the execution of the Cerrado Project and to land and forest base expansions.

**R\$ 39.7 billion** is our investment in the last five years.

## NEW PLANTING AREAS

In 2022, we expanded our eucalyptus planting areas in regions that we consider strategic in the states of São Paulo, Mato Grosso do Sul, Bahia, Maranhão and Espírito Santo. In this way, we were able to expand our forestry base, reaching:

**265,000** hectares of new farms.

**1.2 million** seedlings planted per day.

## SHARE REPURCHASE

In 2022, we completed two stock buyback transactions totaling 40 million shares. This represents about 5% of the total outstanding shares in the market (excluding shares held by controlling shareholders, related persons and managers). The shares were traded on B3, at an average price of R\$48.33/share (in May) and R\$46.84/share (in July), totaling R\$1.9 million. A third buyback program to acquire up to 20 million shares was announced in October.

Photo: Marcio Schimming



Farmer and resident of the Pedra Bonita Settlement, Brasília. Project: Agroecological Production



3.

Planting seedlings  
in Espírito Santo



Photo: Fernando Cavalcanti

SUZANO AND

SUSTAINABILITY



# STAKEHOLDER ENGAGEMENT

[GRI 2-29]

Our motto is: “It’s only good for us if it’s good for the world.” To understand and meet the needs of the planet, it is essential to maintain relationships with all our key stakeholders, whether they are directly or indirectly affected by our operations. This effort is part of a global transition from the belief that a company exists to benefit its shareholders, to the view that the value created must be shared with all stakeholders.

Considering the expectations of different stakeholders in our decision making requires a coordinated effort across our company. To achieve this, we deploy goals and engagement management systems that enable us to collect data and manage our relationships. We aim to listen to and understand our stakeholders, as well as provide information about our operations. This exchange is essential to build trust, unlock partnership opportunities and mitigate the risk of conflicts.

**In addition to ongoing interactions with stakeholders, we conduct annual surveys to understand the perception of our internal and external audiences regarding our company and material sustainability topics.**

In 2022, we sought to incorporate their views on sustainability through different opportunities: in the materiality consultation, in the survey on reputation and in the GlobeScan survey with experts about our Nature agenda and among the public present at Rock in Rio Brazil 2022.



*Our stakeholder engagement and communication channels are described in our [Sustainability Center](#).*





## PARTICIPATION IN FORUMS AND COMMITMENTS

[GRI 2-28]

We seek to contribute to global and local initiatives on priority topics, with emphasis on:

### Climate change and decarbonization

- **Science Based Target Initiative (SBTi):** We joined the initiative to set a science-based climate target. SBTi is a collaboration between CDP, the United Nations Global Compact, the World Resources Institute and the World Wide Fund for Nature.
- **Climate Action 100:** An investor-led initiative to ensure that the companies with the world's highest greenhouse gas (GHG) emissions take the necessary action on climate change.
- **Race to Zero:** We support the global campaign that seeks to engage governments, companies, investors, academics and civil society leaders to reach zero net GHG emissions by 2050.

### Biodiversity and Ecosystem Services

- **TNFD:** We are among the 40 institutions that make up the working group of the Task Force on Nature-related Financial Disclosures (TNFD), an initiative that aims to create a risk management and disclosure instrument for organizations to report and act on nature-related threats. We are part of TNFD's multidisciplinary forum, working to create guidelines and indicators.
- **CEBDS:** We are signatories of the Brazilian Business Council for Sustainable Development (CEBDS) business commitment to biodiversity conservation
- **Business for Nature:** We participate in the Board of the global coalition of business engagement for nature conservation.
- **COP15:** We actively participated in COP15, engaging in the negotiations and contributing to conservation and restoration efforts. Our goal of connecting half a million hectares of biodiversity corridors is an instrument that will help us meet targets 2 and 3 of the Global Biodiversity Framework (GBF), since the corridors will preserve the landscape in three different Brazilian biomes.
- **Nature Action:** We committed to the Nature Action platform, launched by the World Business Council for Sustainable Development (WBCSD) and CEBDS at COP15, which aims to support companies on their TNFD journey in Brazil and accelerate investments in the voluntary carbon market based on Natural Climate Solutions in the Amazon."

- **WEF:** We are part of 1t.org – World Economic Forum (WEF), a multi-stakeholder platform focusing on forest aspects to achieve climate, biodiversity and sustainable development goals by 2030. In addition, we participate in the Capitals Coalition, a global collaboration network that promotes a capital approach to decision-making.

### Sustainable Development and Integrity

- **Global Compact:** We are a signatory to the 10 principles of the UN Global Compact, which address human rights, labor rights, the environment and the fight against corruption, and participate in the Brazilian Committee.
- **Sustainable Development Goals (SDGs):** We consider the 17 SDGs in our social and environmental initiatives. We also participate in the CFO Coalition, global initiative that works to align investments and link corporate finance to relevant SDG targets.

Photo: Eliza Carneiro

Neblinas Park,  
in São Paulo



# MATERIALITY

[GRI 3-1]

This report prioritizes the topics identified as material in 2021, as part of a process to evaluate the most relevant aspects for the business from the perspective of the company's various stakeholders, with an emphasis on the analysis of the impacts of each topic.

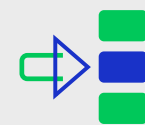
The process was based on the guidelines of the Global Reporting Initiative (GRI) and the International Integrated Reporting Council (IIRC) and incorporated the most current concepts in this area:

**Dynamic materiality** – Recognizes that the material impact of ESG issues evolves over time. This means that we maintain continuous dialogue with our stakeholders to consider their perceptions when updating material topics.

**Double materiality** – Expands the basic definitions of financial materiality to include a company's impact on society and the environment. To this end, it considers sectoral studies of the financial, social and environmental impacts of our activities.

## STEPS OF THE MATERIALITY PROCESS

The methodology for updating materiality followed four steps:



### 1. IDENTIFICATION

Analysis of secondary sources to survey the organization's main topics:

- Internal documents (annual reports, previous materiality assessment, analysis of gaps and confirmations in recent years)
- External documents (relevant industry studies and research, ESG frameworks, strategies of other companies, impact studies – International Finance Corporation (IFC), World Economic Forum (WEF), The Nature Conservancy (TNC), and others).



### 2. PRIORITIZATION

Consultation on the perceptions of stakeholders to prioritize topics:

- Interviews with leaders.
- Perception survey including 48 key stakeholders (customers, investors/analysts, academia/ multilateral organizations/opinion leaders, NGOs, associations/ industry representatives, suppliers).
- Analysis of sectoral studies from relevant organizations, such as Sustainability Accounting Standards Board (SASB), Forest Stewardship Council® (FSC®), IFC, WEF and TNC, identifying impacts on the sector.



### 3. ANALYSIS

Analysis of results (materiality matrix and list of topics)

- Identification of eight material topics.



### 4. VALIDATION OF RESULTS

Presentation of the analysis of results and decision by the organization.

- Validation by senior management and Board of Directors. [GRI 2-14]



## MATERIAL TOPICS | GRI 3-2, 3-3|



This Report presents the financial, social, environmental and corporate governance highlights for the period between January 1 and December 31, 2022<sup>1</sup>. The information is reported in accordance with the 2021 Global Reporting Initiative (GRI) standards and is in line with the 17 Sustainable Development Goals (SDGs) established by the United Nations. It also introduces the metrics of the Sustainability Accounting Standards Board (SASB) for the Pulp and Paper Products, Forestry Management and Containers and Packaging industries, the metrics of Stakeholder Capitalism, of the World Economic Forum (WEF), as well as the recommendations of the Task Force on Climate-Related Financial Disclosures. |GRI 2-2, 2-3|

Complementing the Report, we have prepared a [Supplementary GRI Disclosures](#), with a list of reported material indicators, and a [Preparation Basis](#) with the assumptions we use for these indicators. The Report and Supplementary GRI Disclosures are part of the non-financial information hub, available at the [Suzano Sustainability Center](#). This hub lists the entities included in the Report and presents a wide range of indicators. Doubts, suggestions and requests for additional information can be directed to [relatoriosuzano@suzano.com.br](mailto:relatoriosuzano@suzano.com.br). |GRI 2-3|

<sup>1</sup>The Sustainability Report covers the same period as our financial reports.



# SUSTAINABILITY STRATEGY

Being a leader in sustainability is one of our five strategic avenues. Our approach is driven by innovability, which means the pursuit of sustainability through innovation. It drives us toward the ambition of doubling in size over the next ten years by offering solutions originating from trees to replace plastic and fossil materials.

We are a “Climate Positive” company, as our cumulative performance recognizes that we remove more GHG than we emit. Moreover, the high-quality management of areas of planted eucalyptus and natural forests, in the form of mosaics, has proved to be a support mechanism for biodiversity, as confirmed through more than 30 years of fauna and flora monitoring in different biomes in which we operate.

We promote human development and a culture of diversity, equity and inclusion among our more than 42,000 company

and contracted employees and through the relationship with 1,560 neighboring communities, contributing to the reduction of poverty in the areas where we are present.

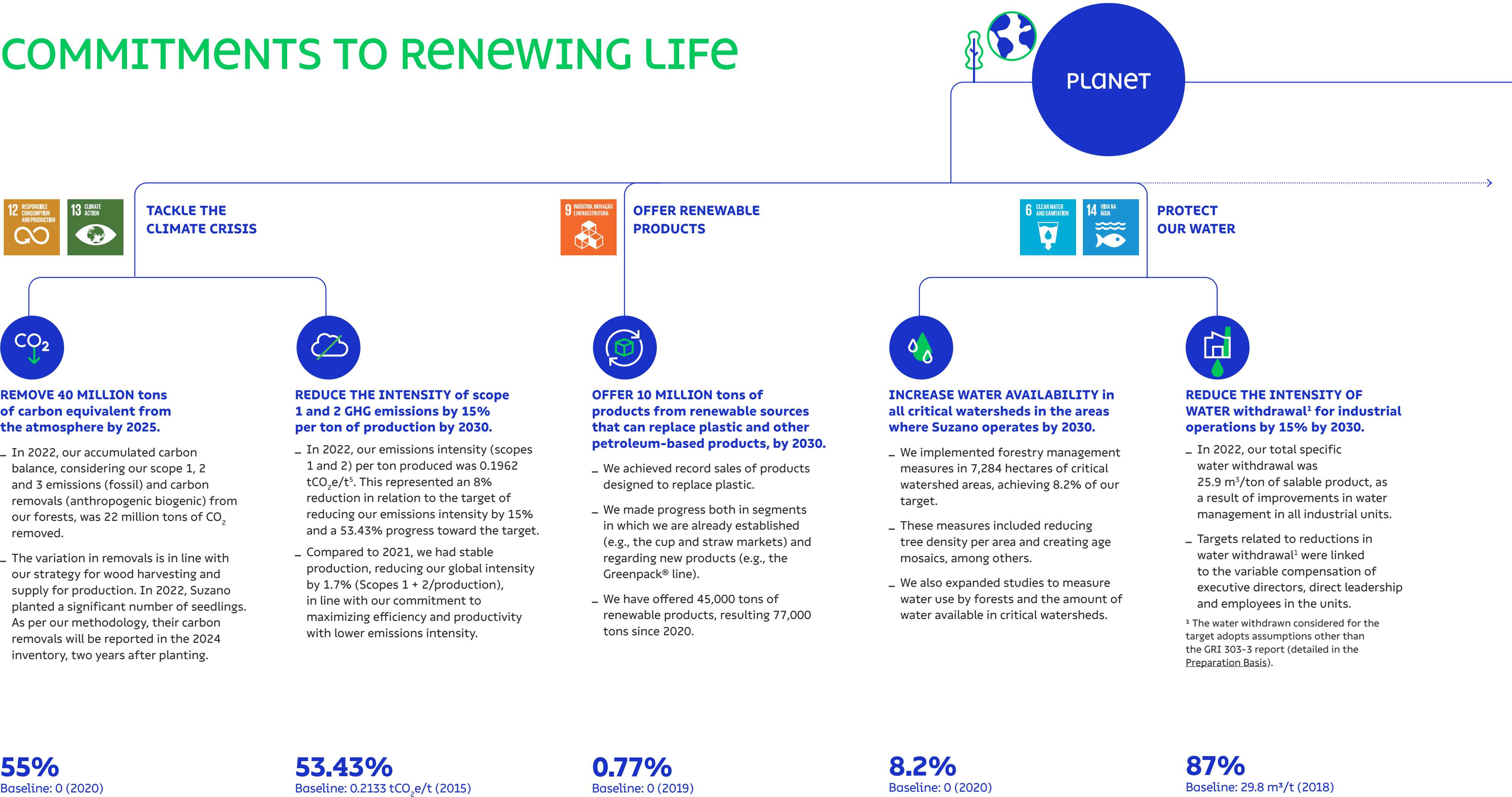
Our Commitments to Renewing Life translate into initiatives that are aligned with the Sustainable Development Goals (SDGs). They are made up of 15 targets related to tackling the climate crisis, offering renewable products, reducing poverty, conserving biodiversity, and others — always based on the principle that “it’s only good for us if it’s good for the world”. These commitments are detailed on [page 20](#). The results corresponding to the year 2022 were evaluated by an independent third party.

As of 2020, 100% of managers have at least one of the targets of our Commitments to Renewing Life linked to their variable compensation, which aligns the entire company toward the achievement of results.

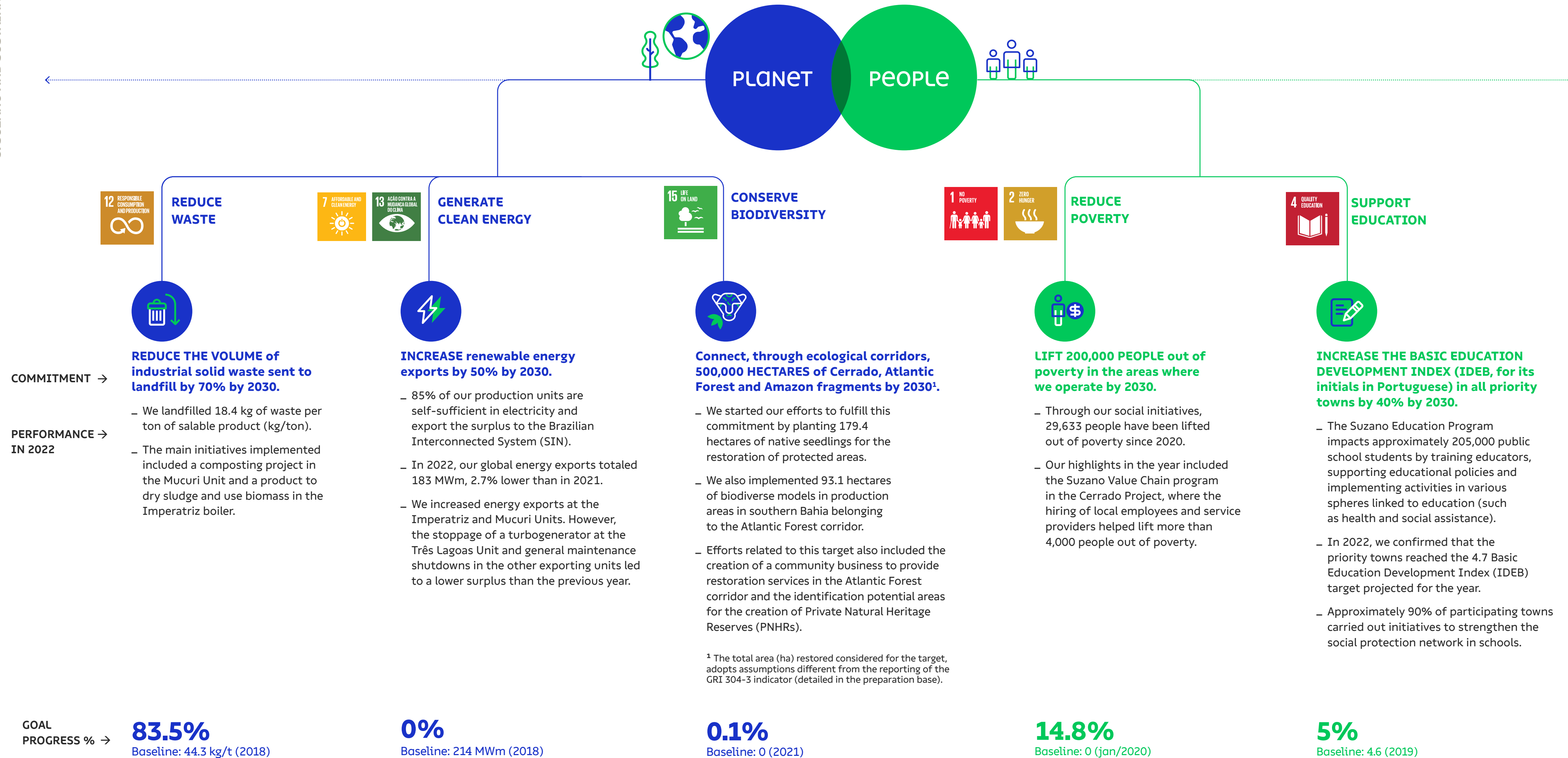
## “it’s only good for us if it’s good for the world”



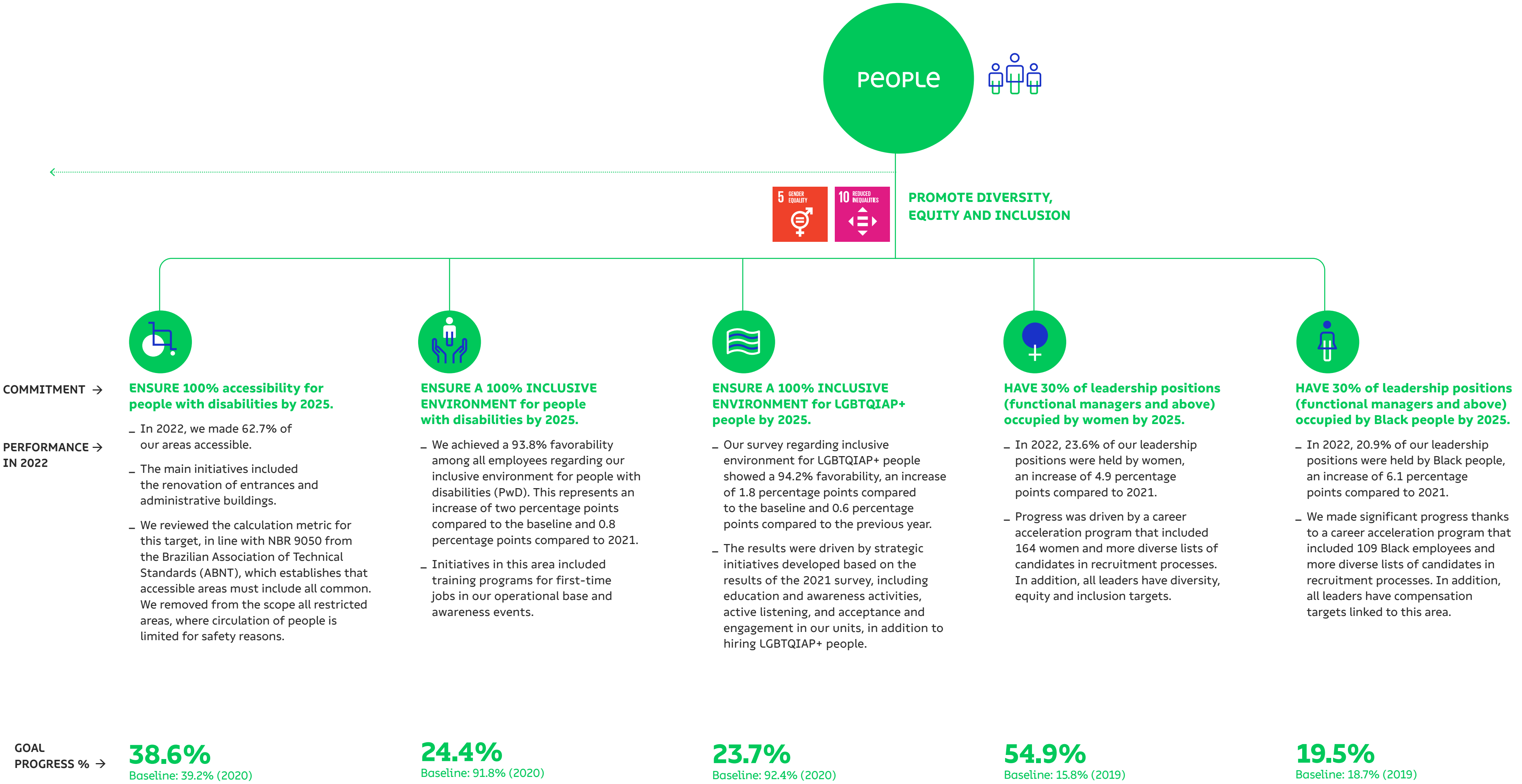
# COMMITMENTS TO RENEWING LIFE













# SUSTAINABLE FINANCING

In 2022, we continued to leverage sustainability-linked financing and signed two new credit lines for the Cerrado Project. An up to US\$800 million Export Credit Supported Facility will be financed by Finnish Export Credit (FEC) and guaranteed by Finnvera, a Finnish export credit agency. The precondition for this loan will be an environmental and social action plan to meet the performance standards of the World Bank’s International Finance Corporation (IFC).







We also signed a US\$600 million Sustainability-Linked Loan (SLL) through a new credit line provided by IFC and a commercial bank syndicate, with two Sustainability Performance Targets (SPTs) linked to interest rates that may increase or decrease depending on their achievement.

The two targets used in this agreement are in line with our Commitments to Renewing Life to reduce GHG emissions intensity and increase the number of women in leadership positions in the company.

Since our first sustainability-linked loan in 2020, we have raised a total of R\$4.9 billion through financing instruments linked to social and environmental targets.

## INDEXES AND RATINGS

We present our evolution in the main ESG indices and ratings in which we participate, with emphasis on:

	2020	2021	2022	
	71	75	79	↑
	19.5	20.9	18.2	↑
	NA	78.8	81.8	↑
	B	A-	A	↑
	B	A-	A-	↔
	B	A-	A-	↔
	3.3 (B)	3.8 (B)	4.3 (BB)	↑
	NA	NA	69	

NA: Not applicable

Our position across key ESG indices and rating improved overall in 2022:

- Selected as one of the top 10% companies in the Forest and Paper Products segment in S&P Global’s Dow Jones Sustainability Emerging Markets Index, one of the most important sustainability indexes in the world
- Evolved from Medium Risk to Low Risk in the ESG Risk Rating by Sustainalytics, which reflects a low risk of being significantly affected by ESG issues
- Upgraded from B to BB by MSCI
- Joined CDP’s A list for Water Security and maintained our A- score in Climate Change and Forest
- Remained among the companies that constitute the sustainability indices of B3 – Brazil Stock Exchange and Over-the-Counter Market: the Carbon Efficient Index (ICO2 B3), the Great Place to Work list (IGPTW B3) and the Corporate Sustainability Index portfolio (ISE B3), which includes stocks from 46 companies.
- Earned a Gold Medal in our first year of participation in the EcoVadis Sustainability Rating 2022, placing Suzano in the top 6% of more than 85,000 companies evaluated globally.
- Featured in the Corporate Climate Action Transparency Index (CATI), a recently launched index that recognizes the efforts of companies to reduce GHG emissions in their supply chain. Suzano is the first South American company to be part of the index, and is also the best rated company in the Pulp and Paper sector. In addition, Suzano was mentioned twice in the report accompanying the index as a carbon neutral benchmark for its excellent performance in this area.

“At the end of 2022, loans linked to sustainability goals (SLL and SLB) and projects with environmental benefits (green bonds) accounted for 39% of the company’s debt.”  
**Marcelo Bacci**, Executive Director of Finance and Investor Relations



# SUSTAINABILITY GOVERNANCE

Accountability for sustainability issues rests with our highest governing body. Our Sustainability Committee, which is linked to the Board of Directors and coordinated by the Chairman of the Board, is made up of six of the nine independent Board members.

The Sustainability Committee advises the Board on strategic issues, including risks and opportunities associated with social and environmental issues that may have significant impact on the business. It also makes recommendations on long-term objectives, while monitoring the company's performance and the quality of the relationships with different stakeholders.

We are evolving toward a more data-driven sustainability culture to inform decision-making processes, including continuous monitoring of our performance. With this objective in mind, in 2022 we launched the Finance Tech ESG platform, which now facilitates quarterly analyses of indicators related to the Commitments to Renewing Life. Among the issues addressed in 2022 were the implementation of these commitments, progress in certifications and the climate-related aspects of the business.

Our Sustainability Committee, which is linked to the Board of Directors and coordinated by the Chairman of the Board, has nine Board members, six of whom are independent.

## ESG Call

We held our second ESG Call to deepen the discussions on environmental, social and corporate governance issues. In 2022, the call concentrated on three main topics: climate change, social development and biodiversity. It included the participation of senior executives and was mediated by Joel Makower, CEO and co-founder of the GreenBiz Group. The recording of the ESG Call is available on [our YouTube channel](#).

Photo: Ricardo Teles

Suzano's native  
forest and eucalyptus  
plantation



4.

Laboratory  
at the Limeira Unit

Photo: Fernando Cavalcanti

# INNOVATION

FOR THE  
BIOECONOMY



# THE BIOECONOMY IN CONTEXT

## [GRI 3-3] – MATERIAL TOPIC: INNOVABILITY

According to the Food and Agriculture Organization of the United Nations (FAO), “The bioeconomy is the production, utilization, conservation and regeneration of biological resources, including related knowledge, science, technology and innovation, to provide information, products, processes and services within and across all economic sectors and enable a transformation to a sustainable economy.” The term bioeconomy became popular in the first decade of the 21<sup>st</sup> century when it was used by the European Union and the Organization for Economic Cooperation and Development (OECD) as a concept to leverage the use of biotechnology to develop new products and markets.

The future of our business aligns with a growth in global demand for and consumption of bioproducts from regenerative businesses. Food, oils, fibers, energy, environmental and ecosystem services — the bioeconomy has strong potential to offer solutions to replace fossil and non-renewable resources to ensure the sustainability of production and consumption systems.

Suzano is at the heart of the transformation of the bioeconomy. We invest in innovation and partnerships as we work to reduce the negative impacts — and increase the positive ones — of our activities. We integrate sustainability into our business at all stages of our operations, promoting the use of renewable resources and the regeneration of ecosystems at all stages of our operations. We aim to do even more through innovative projects in a variety of fields, including the textile, cosmetics and fuel industries, offering renewable alternatives to replace plastic and other petroleum-based and non-renewable products.

Our bioeconomy initiatives include circular projects to reuse resources within industrial processes and ecodesign initiatives that use material recycling and biodegradation as the basis for the development of new products.

Photo: Mike May



Seven-colors-Tanager  
(*Tangara seledon*)

“

There is no future for business as usual. Over 70% of us are affected by rising inequalities, a third of the world’s land is severely degraded, we are losing forests at an alarming rate (one football field of forests every six seconds in 2019), and up to 1 million species are threatened with extinction. Over half of the world’s GDP (\$44 trillion) is threatened by such nature loss. Turning the tide requires deep transformations of socio-economic systems.”

**Marc Palahí**, director of the European Forest Institute, during the World Economic Forum The Jobs Reset Summit



# RENEWABLE PRODUCTS

## COMMITMENT: OFFERING PRODUCTS FROM RENEWABLE SOURCES

We will fulfill our commitment to offer 10 million tons of products from renewable sources by 2030 through two key approaches: (1) replacing petroleum products (fossil to fiber) and (2) expanding the use of eucalyptus fiber to replace long fiber (fiber to fiber).

In 2022, we made progress on several initiatives to promote different options to accelerate innovation for a bioeconomy, as in the following examples.

## PULP

The year 2022 was marked by positive developments in the hardwood pulp market, primarily due to solid demand in the main markets and supply restrictions, resulting in historical peaks in average prices during the year. Our pulp sales totaled 10.6 million tons.

In China, there was stable and continued demand for pulp for sanitary paper products, following a trend of migration to online sales channels. The Packaging and Printing & Writing paper segments remained stable, driven by higher export volumes, mainly to other Asian markets. Also, the difference between long and short fiber pulp prices throughout the year led to a higher consumption of short fiber.

In Europe, despite the geopolitical and economic environment, demand remained healthy, with emphasis on papers for sanitary and special purposes. In the North American market, the demand for tissue paper followed an upward trend, at pre-pandemic levels, and the Printing & Writing segment also grew compared to the previous year. We know that this movement will be increasingly important, and we have significant challenges ahead, such as the pursuit for technology and new materials. However, we believe that this is the path to planting a better future.

## EUCAFLUFF PULP

The primary commercial application of fluff pulp is in absorbent hygiene products. Our eucalyptus fluff is used in products for incontinence, baby diapers, pet mats, sanitary pads, airlaid (non-woven fabric made from pulp) and hospital products.

Named Eucafluff®, this is the world's first eucalyptus fluff (softwood pulp) and has a lower carbon footprint than most equivalent alternatives made from pine pulp (hardwood pulp). It is the result of almost 15 years of R&D and offers unique advantages that enable the production of absorbent panels that are thinner, softer and more flexible, with significantly improved liquid retention. This is due to the morphology of our eucalyptus fiber, which is smaller, thinner and highly compressible.

In July 2022, at the China International Disposable Paper Expo (CIDPEX), we introduced products made with absorbing panels using 100% Eucafluff®, such as pant diapers and sanitary pads.

Employee at paper machines at the Suzano Unit



Photo: Fernando Cavalcanti



## PAPER INNOVATION

We have been investing in the development of new products from renewable sources for paper and packaging applications. In 2022, the innovations we have launched since 2018 represented almost 5% of the total sales of the Paper and Packaging unit — double the percentage in 2021.

We offer different sustainable packaging products:

- **Paperboard** (chocolate boxes, panettone and other items).
- **Flexible package** (flexible paper for packaging, an area that requires new technology to replace plastic).
- **Paper for bags**, cups, straws and containerboard.
- **Green packs** made with Greenpack®, to be used for different purposes.
- **Paper bags** made with Greenbag®, using 100% eucalyptus fiber to replace common bags, which mix short fiber (from eucalyptus) with longer ones (from other trees) and were used in projects with iFood and Zé Delivery.

In 2022, we launched Pólen Natural®, which was specially developed to print books using fewer chemical additives. In addition to being more sustainable, its slightly off-white color makes reading more comfortable.

Additionally, in the beginning of 2022, we entered into a partnership with the Boticário Group to develop 1ml plastic-free containers for perfume samples. The product is made using Greenpack®, a type of paper specifically developed from renewable, biodegradable and recyclable raw materials to be used as flexible packaging.

### PARTNERSHIP IN DELIVERY

We announced a partnership with Zé Delivery, the most used beverage delivery app in the world, that includes the use of 10,000 recyclable paper bags made from a renewable, biodegradable and reusable source to package orders placed in their dark stores. The pilot products are made with Greenbag®, a highly resistant type of paper that ensures the safe transportation of beverages. This innovative and sustainable solution is unprecedented in a historically plastic intensive industry.



## RENEWABLE PAPER PRODUCTS

Suzano was an official Sustainability Partner of Rock in Rio Brazil 2022, which took place in September, in Rio de Janeiro, and welcomed an average of 100,000 people a day.

During the festival, 70,000 paper cups made from our Bluecup Bio® were distributed to the public to drink water, as a way of encouraging sustainable choices in the City of Rock. Bluecup Bio® is the first Brazilian paperboard developed especially for the production of paper cups — it is 100% recyclable and biodegradable, coated with water-based biodegradable resin and free of plastics.

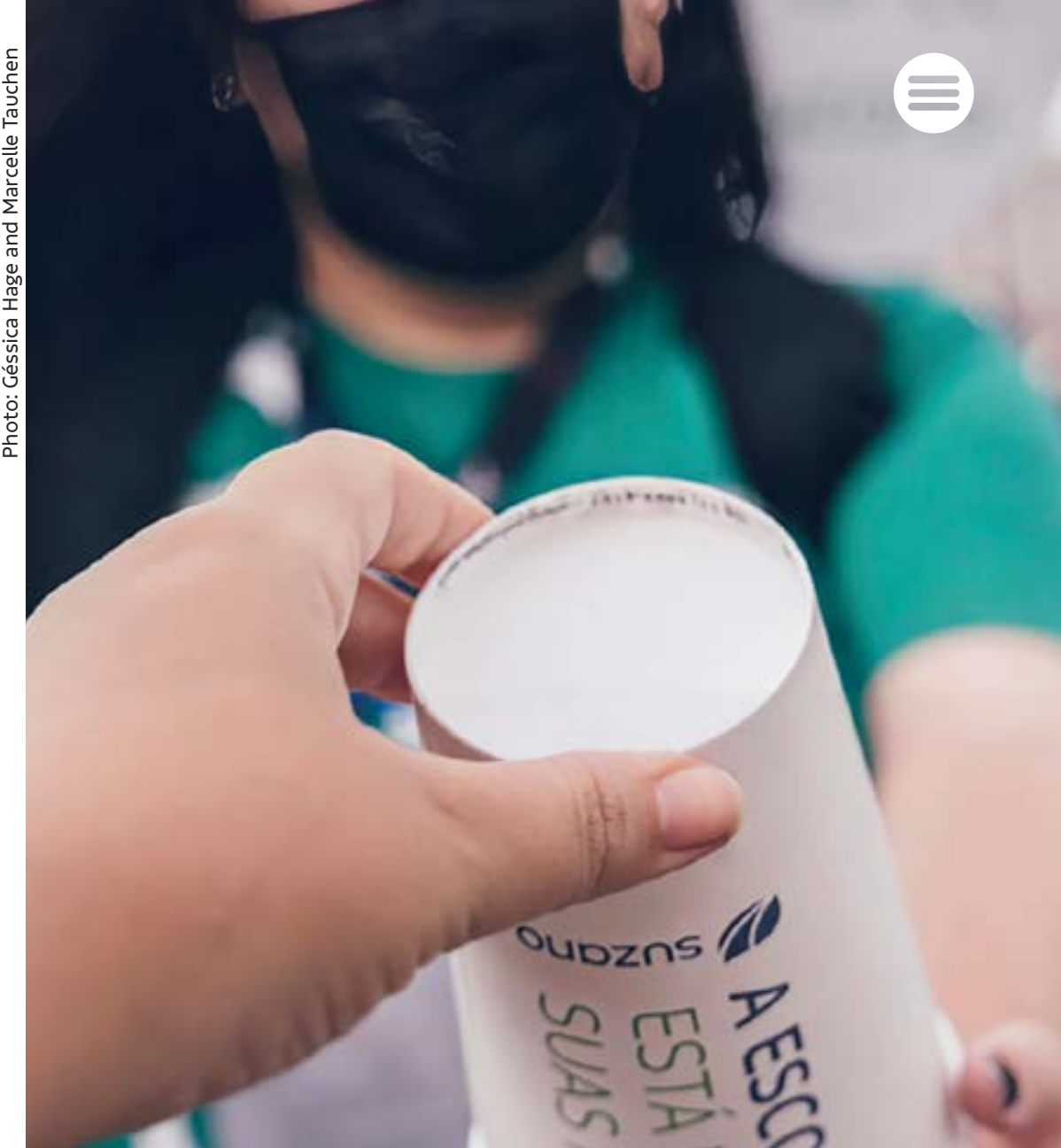
Working with iFood, one of our partners in advancing a circular bioeconomy, we set up paper waste collection points, including cups and food containers. To ensure circularity, all collected waste was sent for recycling to be reused to produce other materials.

To reinforce the importance of sustainability, we selected 18 digital influencers with a combined total of more than 106 million followers on social media to promote awareness messages regarding conscious consumption.

## CHANGING CONSUMER HABITS

During Rock in Rio Brazil 2022, we hired the Datafolha institute to understand the consumption habits and opinions of the public regarding sustainability. The survey showed that seven out of each 10 people interviewed are very interested in sustainability issues, and 67% considered paper to be the most sustainable option for packaging and disposable products. Although only 66% said that they buy sustainable products sometimes and only 59% said that they assess whether what they are buying is sustainable, 77% said that they were very willing to change their habits to protect the environment.

Photo: Gessica Hage and Marcelle Tauchen





## MICROFIBRILLATED CELLULOSE (MFC)

MFC is a cellulose pulp that is refined through intensive mechanical processes during which the fiber is reduced to nano dimensions, enabling it to be used in a range of applications and be an important input for the circular bioeconomy.

Since 2017, we have maintained a joint venture with the startup Spinnova for textile production in Finland. This new type of “green fabric” has been successfully tested and has the potential to replace less sustainable materials used in a range of products.

At the end of 2020, we established Woodspin, a joint venture with Spinnova for the construction and operation of textile fiber projects using our MFC as a raw material. At the end of 2022, Woodspin completed the first phase of a 1,000 ton pre-commercial plant in Finland. This unit will be used for market development and technology improvement.

In 2023, we plan to inaugurate our first MFC plant in Limeira, Brazil. Part of the production will be used internally to manufacture paper and the remainder will be sold to be used in several applications under development.

**MFC has the potential to be used in textiles, cosmetics, pharmaceuticals, food, detergents, building materials, garment care products, paints and cement products, replacing fossil-based materials.**

## CONSUMER GOODS

We operate in the Consumer Goods market with a focus on the tissue segment, which is primarily made up of toilet paper, paper towels and napkins. We continued to grow in this segment, ending the year with a 13% market share by volume in Brazil, according to Nielsen Retail. Furthermore, according to Nielsen Homescan, Mimmo® toilet paper, which we launched in 2018, was the number one brand in Brazilian households in 2022.

In 2022, we brought to market a 12-roll Two-Ply Mimmo® toilet paper, also known as Mimmo Greenpack®. It is packaged in Greenpack®, a type of paper made especially for flexible packaging to replace plastic.

“

Consumer brands are increasingly committing to improving their environmental impacts and both consumer perception and regulators around the world are pushing for the elimination of single-use plastic. This is a major opportunity for our bio-based packaging solutions, through ongoing intensive R&D investment in new products.”

**Fábio Almeida de Oliveira**, executive director of Paper and Packaging



Mimmo Greenpack® product at the point of sale



## BIOCOMPOSITES

Biocomposites — a mixture of fibers and polymers — is one of the most important pathways for replacing plastics and other fossil products. We continue to work on several innovative biocomposite developments including natural polymers, microfibrillated cellulose (MFC) and bio-oil.

### Natural Polymers

For more than a decade, we have been studying lignin, a natural polymer extracted from the black liquor produced in the pulp production process. Lignin is a noble source of carbon. Projects developed worldwide indicate that lignin is an antioxidant that can be used to replace phenol (a petroleum-based polymer), in addition to having potential for being used as phenolic resin for laminates (flooring and paper, among other applications) and elastomers (such as rubber).

At the beginning of the year, we signed an agreement with Lubrizol to create natural and sustainable ingredients for the beauty, personal care and home care industries. Through this new partnership, we are studying novel varieties and applications of cellulose-based biomaterials and eucalyptus bioproducts. Later in 2022, we signed our first contracts for the sale of powdered lignin to a manufacturer of car filters and rubber-based conveyor belts.

“

We are committed to expanding our offer of renewable products in the categories in which we are currently established (pulp, paper and packaging) and through new solutions for cardboard packaging, lignin and microfibrillated cellulose (MFC), among others. This aligns with our commitment to making available 10 million tons of products from renewable sources to replace plastic and other petroleum products by 2030.”

**Christian Orglmeister,**  
Executive Director of New Business,  
Strategy and Digital Tech

Photo: Fernando Cavalcanti



Employee at  
the FuturaGene  
Laboratory

### Bio-oil

The development of bio-oil from eucalyptus biomass is another innovation we are progressing. Throughout 2022, in addition to discussing partnerships with major players in the oil value chain, we honed our forestry operational plan and began to discuss regulatory and certification issues applicable to the use of this renewable feedstock. Our plans

include the construction of the first bio-oil industrial unit, in addition to more investments in research to diversify bio-oil applications and ensure the effectiveness of new technologies.

The product has the potential to be used in several markets and applications, such as heating oil, chemicals and fuels.



Photo: Suzano Divulgação

# INNOVATION STRATEGY

[GRI 3-3] – MATERIAL TOPIC: INNOVABILITY

The central concept behind our strategic initiatives is innovability – the pursuit of sustainability through innovation. We believe in the importance of offering sustainable solutions to advance a bioeconomy while helping people understand their role in creating a better future filled with “biopossibilities.”

With this in mind, in 2022, we redefined our innovation strategy around three main axes (Support, Transform and Diversify) and six focus areas (Efficient trees; Biomaterials; Eco-efficiency and preservation; Paper evolution and new applications; Industrial evolution for pulp; and Genetics for efficiency). Our strategy is implemented through six R&D centers (four in Brazil, one in Israel and one in Canada). In 2022, we laid the foundations for a new innovation hub in China, focusing on open innovation (*learn more about our work in China on [page 34](#)*).

Our strategy recognizes that working in partnership with other organizations is essential to accelerate research and development processes. We are the Brazilian company with the second most interactions with startups.

Photo: Gustavo Rampini



## A LEVER FOR OPEN INNOVATION

In 2022, we announced the creation of Suzano Ventures, a corporate venture capital fund that seeks to boost startup investments in Brazil and abroad to accelerate open innovation processes and encourage entrepreneurship around bioeconomic solutions based on planted forests. The fund plans to invest US\$70 million in early-development initiatives and more advanced projects, as well as in acceleration programs in the laboratory phase or those seeking commercial validation.

We have been investing in startups over the last few years. One of our successes is the Finnish company Spinnova, which is responsible for developing a technology for the production of the world's first sustainable textile fiber created from microfibrillated cellulose (MFC) from wood (*more details about this initiative can be found on [page 29](#)*).



## PARTNERSHIPS TO PROMOTE THE BIOECONOMY

In 2022, we advanced partnerships and initiatives in collaboration with technology centers, startups, academic institutions and other organizations to drive progress in bioeconomy-related innovation. These included:

**New R\$25 million research fund** – We announced the creation of research fund for bioeconomy-related innovation projects and to support startups, together with the National Service of Industrial Learning (SENAI), focusing in four areas:

- Improving measurement and management of carbon removals from the atmosphere.
- Accelerating and maximizing agroforestry productivity.
- Developing new technologies and uses

for pulp biomass.

- Creating more efficient pulp packaging from renewable sources.

**CNI** – We were invited by the Brazilian National Confederation of Industry (CNI) to participate in the Industrial Mission call for proposals, working side-by-side with 30 institutes dedicated to cutting-edge research conducted by the National Service of Industrial Learning (SENAI).

**Bioeconomy startup incubation** – For the fourth year, we continued to partner with large companies and startups selected for the Intensive Connection Latam Program, promoted by AgTech Garage, the largest innovation hub specializing in agribusiness

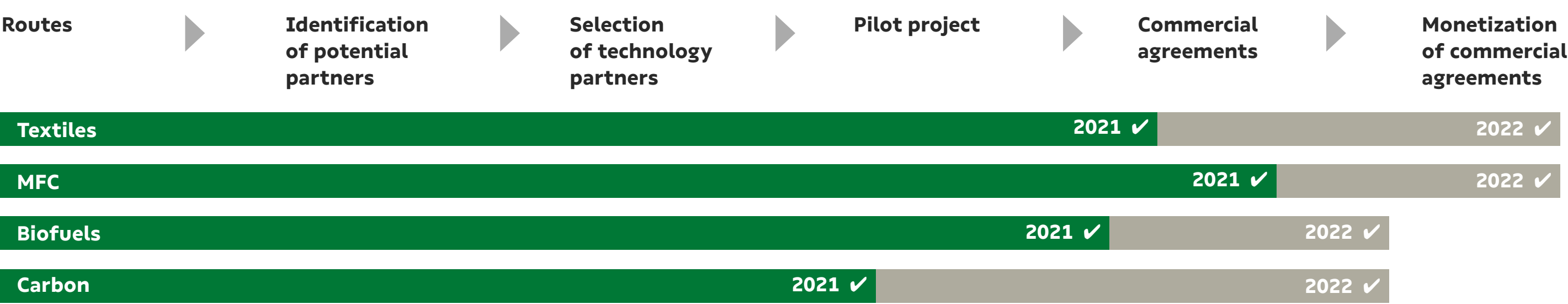
in Latin America. Our participation focuses on ensuring the sustainability of current operations and developing professionals to work with forestry 4.0 (incorporation of cutting-edge technologies, such as artificial intelligence, remote sensing and the internet of things). We selected startup RD3 Digital, a pioneer in the development and application of augmented and virtual reality technologies in Brazil, and Oniria, a B2B industry-focused startup that offers training and professional engagement services.

**Open innovation challenges** – We launched the Open Innovation challenge for startups, companies and researchers to use the paper in our portfolio to develop new products to replace items and packaging currently made

from non-renewable materials. Another initiative, our Innovation in the Value Chain Program, launched its first challenge in 2022 for solutions to reduce the use of plastic film in our logistics activities, especially paper rolls and pallets of finished products.

**Technology entrepreneurship** – We became a partner of Itaú Unibanco bank’s Cubo Agro, the most relevant hub for technological entrepreneurship promotion in Latin America. The goal is to create new opportunities to identify businesses and connect startups, other corporations and innovation partners. Using Cubo’s platform, we launched DigitaLog<sup>3</sup>, a hub to leverage innovability through the company’s logistics operations.

## PROGRESS IN OUR BIO-BUSINESS AGENDA



<sup>1</sup>Analysis by Suzano’s Strategy and New Business Team based on reports from Spinnova, Ensyn, the Task Force on Scaling Voluntary Carbon Markets and various market consultancies.





# RESILIENCE IN LOGISTICS TO SUPPORT OUR CUSTOMERS

In 2022, a year of restricted supply, we overcame the challenges posed by the disruption of supply chains to maintain the availability of our products and meet our commitments to our customers.

Both in Europe and in the United States, the current challenge is to compete with recyclable plastic, which is growing in volume and is supported by powerful lobbying to prevent the advance of products based on plant fibers, such as paper. During the year, we participated in some of the world's main industry conventions, such as Shanghai Pulp Week and London Pulp Week, demonstrating our commitment to customers in the pursuit of environmental solutions based on the bioeconomy.

“

We took all necessary measures to assure smooth operations in our plants, ports and export terminals, ensuring the delivery of our products to our customers in Brazil and abroad.”

**Leonardo Grimaldi,**  
Executive director, Commercial Pulp

Photo: Suzano Divulgaç  o

Event we held at the Natural History Museum in London, during London Pulp Week







Employees from the  
Shanghai office, China

## PRESENCE IN CHINA

In 2022, we made significant progress in serving the Chinese market with the creation of our Asia Business Development Executive Department. In our commercial office in Shanghai, our dedicated teams are driving the development of new markets and applications in areas where we do not yet have a significant presence. China has launched an ambitious plan, called Carbon 3060, to reach peak carbon emissions by 2030 and be carbon neutral by 2060, and it relies on private companies to develop energy, materials and agriculture solutions that can help it achieve its decarbonization goals.

A key achievement was the creation of the Sustainable Development Committee (SDC) within the China Paper and Pulp Industry Chamber of Commerce (CPICC). The SDC aims to drive the modernization of the industry by fostering the adoption of international best practices in the areas of forest management,

energy efficiency and others, while also creating sustainability synergies along the entire value chain. Industry chambers are formal bodies within the Chinese state government structure; the support for the creation of this new Committee testifies to the high degree of trust in our ability to be a positive contributor to sustainable development in China and the region.

For the second time, we participated in the China International Import Expo 22, presenting an ambitious project to create an open innovation ecosystem. Our Innovability Hub, inaugurated in March 2023 in the Zhangjiang area of Shanghai, is a laboratory for the development of solutions and joint projects with our customers in Asia and also for the development of applications for our bioproducts, such as MFC, lignin, biocomposites and bio-oil.

“

We have been in China for 40 years and aim to support the country in its transition to a low-carbon economy by providing a wide range of bio-based solutions that will replace fossil-based materials.”

**Pablo Machado,**  
China Business Executive Director



Suzano Terminal at  
the port of Santos

## SIMPLIFIED ROUTES

In the Middle East and North Africa, we significantly improved our service to customers by simplifying our logistics route. Instead of shipping pulp from Brazil to a port in Europe and arranging ongoing distribution in smaller vessels, we negotiated with shipping companies to use larger ships directly from Brazil. This change improved service, while also reducing costs and inventories held in different countries and lowering the carbon footprint throughout the supply chain.

In the United States, we started using barges for river transport. The pilot project started in New Orleans, with boats setting sail on the Mississippi River. In addition to lowering logistics costs, barge transportation helps reduce GHG emissions by approximately 20% compared to trucks.



5.

Suzano's native  
forest and  
eucalyptus  
plantation

Photo: Ricardo Teles

# BIO SOLUTIONS

FOR THE CLIMATE  
AND NATURE



# CLIMATE STRATEGY, RISKS AND OPPORTUNITIES

## COMMITMENT: TACKLE THE CLIMATE CRISIS

|GRI 3-3\_201\_305| – MATERIAL TOPIC: CLIMATE CHANGE

Each year, the climate crisis becomes more evident to mankind. According to the World Bank, up to 132 million people could be pushed into poverty by climate change and natural disasters by 2030. In addition, the risk of surpassing the 1.5°C warming limit in relation to pre-industrial levels, established by the Paris Agreement in 2016, was discussed at COP27 in 2022. For us, this is a material topic. As such, urgent and effective action to reduce emissions and maximize removing carbon from the atmosphere is part of our everyday business. As a nature-based solutions company, our management model also ensures the conservation of biodiversity and the regulation of the hydrological cycle.

In 2022, driven by the benefit offered by our forests, our strategy for expanding our forest base through new farms in anthropized or degraded areas, and the opportunity to contribute to the decarbonization of other sectors, we advanced our plans for structuring carbon credits and future

commercialization. The Cerrado and Horizonte Carbon Projects will also contribute toward this effort during their existence. The two projects, located in the state of Mato Grosso do Sul, follow the Arborization, Reforestation and Restoration (ARR) methodology by the Verra certifier and have been audited by an independent third party.

We work to generate credits from a part of our operations — through specific projects that incorporate the principles of eligibility and additionality — and not from our total levels of removal of carbon from the atmosphere. In addition, there is still no set of rules or methodology recognized worldwide for reporting removals that consider the sale of carbon credits. We are members of the GHG Protocol's Advisory Committee and are participating in the pilot test for their new Land Use methodology. Until the methodology is available and credits are being sold, we have committed to sharing our performance in carbon removal, carbon balance and carbon credit sales in future annual reports.

**We have a significant forest base of 2.6 million hectares, which includes native forests and eucalyptus farms that remove carbon dioxide (CO<sub>2</sub>) from the atmosphere on a daily basis and store it in the form of biomass.**

“

We continue to seek new opportunities to generate carbon credits in planted areas, the industry and the value chain. There is still no specific legislation in this area in Brazil, and we believe that the carbon market, both voluntary and regulated, is an instrument that can accelerate the transition toward the decarbonization needed by society.”

**Luís Bueno,**  
Executive Director of Consumer Goods and Corporate Relations





## Progress in Decarbonization

We recognize that progress toward a low-carbon economy requires not only carbon removal but also emission reductions. Both are significant and urgent measures that must occur concurrently.

In our industrial units, we have been reducing emissions through retrofit projects and increasing the efficiency of furnaces, boilers and turbogenerators. This is a gradual movement toward reducing the use of higher emission fuels (such as oil and natural gas) and replacing them with lower emission fuels (such as biomass and black liquor). This also includes the adoption of new technologies, such as biomass gasification (Syngas), which will be implemented at our future Ribas do Rio Pardo Unit, currently under construction.

In the forestry area, with the expansion of our operations and increase in absolute emissions, we employ state-of-the-art technologies to achieve higher energy efficiency. This includes using cranes with higher production capacity and harvesters with lower fuel consumption per cubic meter produced. In wood transport, our measures to reduce fuel consumption include projects to reduce the average radius (distance between forests and plants), optimize routes, expand cargo boxes and increase the use of six-trailer trucks (hexatrains).

Our efforts are not limited to our operations. In logistics, in addition to efficiency measures, such as synergies in the transport of products from different business units, use of electric vehicles in the metropolitan region of São Paulo, increased use of railways and optimization of routes worldwide, we are also engaging our suppliers and conducting several studies.

For example, together with Grieg Maritime and other players in the maritime industry, we are carrying out a technical-economic feasibility study to investigate opportunities to use green ammonia in transatlantic ships. In addition, we have been working with the China Ocean Shipping Company (COSCO) on sustainability initiatives in the logistics chain, including the design of new ships with the goal of maximizing operational efficiency and reducing CO<sub>2</sub> emissions.

In operations, we have been studying alternative fuels (such as hydrogen and green methanol) and the use of electric vehicles to further contribute to our decarbonization.



Suzano's native forest and eucalyptus plantation

Foto: Ricardo Teles



## TCFD

We formally support the Task Force on Climate-related Financial Disclosures (TCFD) and report potential climate-related financial impacts based on its recommendations.

## GOVERNANCE

The Board of Directors, supported by the Sustainability Committee, is responsible for overseeing the sustainability strategy, including climate change aspects. In 2022, part of the variable compensation of executive directors was linked to sustainability target; our CEO and five directors have climate-related targets.

**Engagement and awareness** – We strengthened our dialogue and partnership with governments, companies, non-governmental organizations, associations and academic institutions through active participation in forums and working groups. Internally, we created multidisciplinary working groups.

## RISK MANAGEMENT [GRI 201-2]

Climate change and its potential effects are considered a priority corporate risk. Accordingly, we have a structured system to evaluate, address, monitor and report this risk. In 2022, the Investment Committee began to consider sustainability criteria,

including climate change, in its evaluations of industrial modernization projects.

Since 2019, we have implemented initiatives to improve climate change management, in line with best practices in this area. This effort has involved mapping and formalizing climate risk and opportunity management processes in several areas. We started to perform annual assessments of compliance with the TCFD recommendations, based on criteria set by the Accounting for Sustainability's TCFD Maturity Map. This diagnosis has shown that our level of maturity regarding compliance with the TCFD criteria has increased over time, reaching 79 % in 2022.

In 2022, we contracted an external consultancy aiming to expand our capacity to analyze and manage physical and transition risks in different climate scenarios, including our forestry, industrial and logistics operations, as well as some critical suppliers, totaling 50 locations. The result of this work will help us improve the financial quantification of mapped risks and climate governance. This study, combined with the increased use of internal carbon pricing to assess projects and manage the transition risk of a future carbon market, led to an increase in our score in the field of Strategy and Management of Risks and Opportunities.

Following the continuous development of a strategic approach to managing climate-related risks and opportunities, as well as the results of

studies developed in 2022, these practices will be incorporated into our business throughout 2023.

## STRATEGY

Our future depends on our ability to innovate and our responsibility to optimize the use of available resources. Based on the opportunities created by this assumption we defined our long-term strategic vision:

1. Continue to be an industry benchmark in efficiency, profitability and sustainability, from the forests to the customers.
2. Be a transforming agent in the expansion of our biomass into new markets.
3. Be a benchmark in sustainable and innovative solutions for the bioeconomy and environmental services, based on cultivated trees.

## METRICS AND TARGETS

We disclosed more than 100 indicators used to assess climate risks and opportunities, including scopes 1, 2 and 3 GHG emissions and removals, calculated in line with the GHG Protocol methodology. Part of these metrics is also incorporated into operational performance indicators, with specific targets to be achieved.



More information can be found in our [Sustainability Center](#)



Suzano's eucalyptus plantation



Suzano has been a long partner of CDP. I'm particularly happy that Suzano has chosen to engage its supply chain on climate change. This is a really exciting development because the vast majority of a company's emissions are actually beneath the surface in the supply chain."

**Dexter Galvin**, Global Director of CDP



# ENERGY AND OPERATIONAL EFFICIENCY

[GRI 3-3\_302] – MATERIAL TOPIC: CLIMATE CHANGE

The use of forest biomass waste, combined with energy efficiency projects, enables most of our production units (85%) to be self-sufficient in electricity from renewable sources. As a result, we meet our internal energy needs and export the surplus to the Brazilian Interconnected System (SIN), as another source of revenue. As one of the largest self-producers of energy in the country, we help meet the energy demand through a renewable source and support initiatives to decarbonize the economy.

Our energy mix is primarily made up of clean and renewable sources, which accounted for 88.1% of our energy matrix in 2022. The main source is biomass, which may be liquid, like black liquor (a type of waste from the pulp production process) or include wood bark, logs, woodchip and even reused biological sludge. We are lowering

our use of non-renewable energy, such as natural gas, by implementing measures that include the non-activation of the natural gas turbogenerator in Jacareí and the start of a project to increase the capacity of the biomass boiler in Suzano, reducing gas consumption for steam generation.

In 2022, our consumption of electricity from the SIN was 7.1% higher than the previous year, while exports to the grid by our generating plants were 4.8% lower. These totals reflect an increase in production in non-energy generating units, such as Consumer Goods, as well as general maintenance shutdown in the turbogenerator in Limeira and problems with the turbogenerator in Três Lagoas, the group's largest export unit. Total energy consumption was practically stable (up 0.2%) compared to 2021.

## 88.1%

of our energy matrix in 2022 comes from clean and renewable sources

“

The increased renewability of our energy matrix results from gains in efficiency — such as retrofits and increased efficiency of furnaces, boilers and turbogenerators — as well as efforts to reduce the consumption of non-renewable fuels, especially natural gas. Efficiency will also be increased through the use of new technologies, including biomass gasification, which will take place at the Ribas do Rio Pardo Unit currently under construction.”

**Aires Galhardo,**  
executive director of Pulp Operations

Limeira Unit



Photo: Fernando Cavalcanti







MANAGEMENT

One of our energy efficiency initiatives is project Thor, an internally developed digital tool that uses algorithms and machine learning to recommend the best allocation of available steam to each turbine, optimizing energy generation. The industrial units also implement projects to increase the generation of steam by the boilers according to the amount of fuel consumed, thereby increasing the amount of electricity generated.

Our energy self-generation capabilities inspired one of Suzano’s 15 Commitments to Renewing Life, which is to increase renewable energy exports by 50% by 2030 (base year 2018). This goal is supported by

the implementation of the Cerrado Project, which is under development in Mato Grosso do Sul and will start operating in mid 2024. In addition to being energy self-sufficient, the new unit will export an average of 180 MW of energy, enough to meet the energy needs of a city of more than two million residents for one month.

In our quest to increase the energy efficiency of our units, we signed an unprecedented agreement with Eneva to supply liquefied natural gas (LNG) to the pulp mill in Imperatriz. Replacing fuel oil with natural gas results in a 13% reduction in GHG emissions. The first delivery is scheduled for 2024.



TOTAL ENERGY CONSUMPTION (GJ)<sup>1</sup>

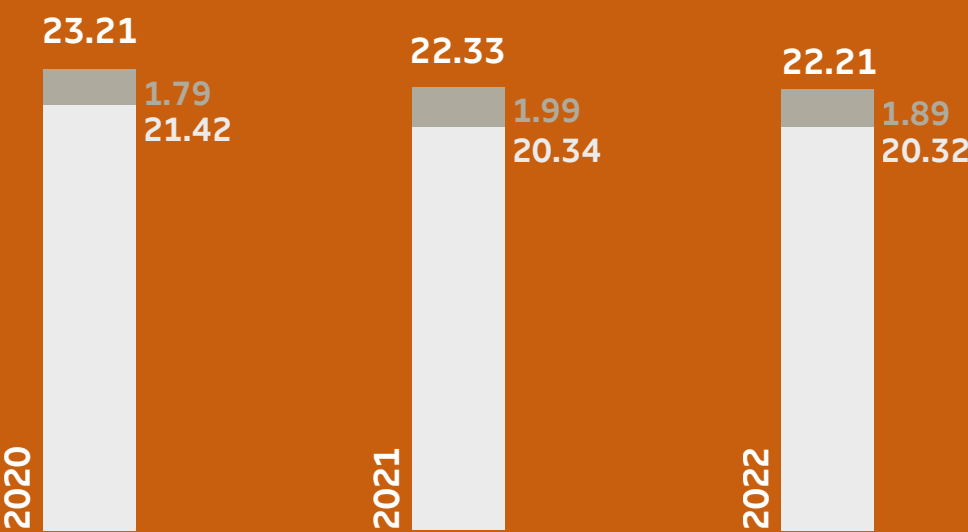
[GRI 302-1] SASB RR-PP-130<sup>o</sup>.1, RT-CP-130<sup>o</sup>.1 | SDG 7.2, 7.3, 8.4, 12.2, 13.1

	2020	2021	2022
Fuel from non-renewable sources	28,024,857	30,956,554	29,832,587
Fuel from renewable sources	214,386,647	216,528,217	217,504,399
Energy consumption	3,498,800	3,872,202	4,148,649
Energy exports	5,646,273	5,711,288	5,435,819
Total	240,264,031	245,645,685	246,049,817

<sup>1</sup> Total energy consumption considers the sum of energy from fuels from renewable and non-renewable sources and electricity, subtracting the total energy sold from this amount.

ENERGY INTENSITY (GJ/t)<sup>1</sup>

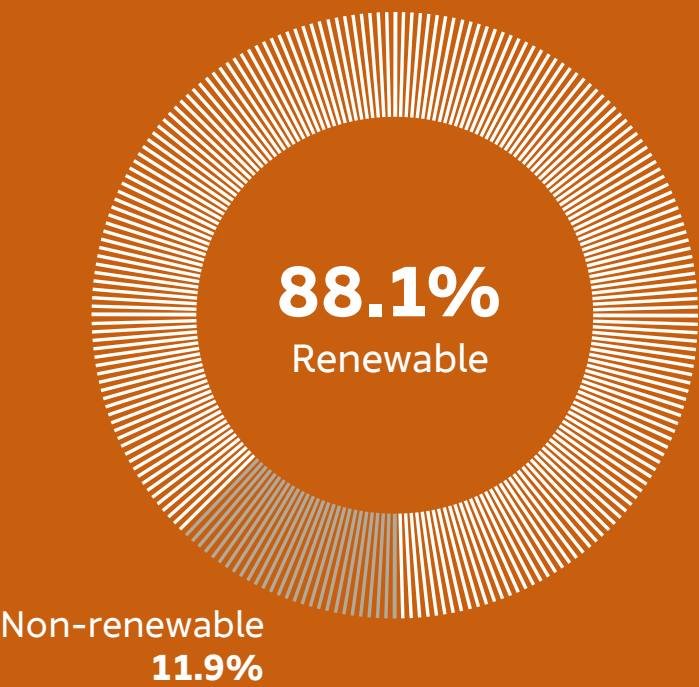
[GRI 302-3] SDG 7.3, 8.4, 12.2, 13.1



● Within the organization ● Outside the organization

<sup>1</sup> Energy intensity is expressed in gigajoules per ton produced and considers fuel and electricity consumption.

ENERGY SOURCES





## LOGISTICS

Throughout 2022, our logistics operations experienced significant challenges. As an ongoing impact of the COVID-19 pandemic, acquiring spare parts and other electronic inputs continued to be difficult, affecting plant equipment. As in previous years, there was also a shortage of containers and ships. We faced high inflation, with increased costs throughout the production chain. In response to these issues, we increased inventories and reinforced long-term contracts, especially for fuels and fertilizers.

### Itaqui Berth

In 2022, we inaugurated our company-owned berth, warehouse and support room in the Itaqui Port (state of Maranhão), which had been completed in 2021 to export pulp produced in Imperatriz. The new berth ensures loading/unloading priority, enabling us to fulfill delivery commitments and acquire new customers in several countries. Also, the increase in storage capacity significantly reduced costs per ton shipped. Pulp arrives at the port via a 670-kilometer railway network.

## 3.7 million tons

was the total volume of cargo handled in road-rail unloading operations and ship loading at the Port of Santos

### Port of Santos

Thanks to improvements made in 2022, we broke our record for total cargo volume (3.7 million tons/year of pulp, paper and containers) and for road-rail unloading and ship loading operations. We optimized storage capacity at the port and reduced our cost per ton shipped, waiting times and fees charged by shipowners.

We negotiated an increase in our storage area and the acquisition of equipment from DPWorld Santos, which operates on the left bank of the port. This will enable us to handle part of the volume that will be produced by the Cerrado Project. The construction for the adaptation project will be carried out in 2023.

We also sought opportunities to occupy the T32 warehouse, a terminal that we lease and is located on the right bank of the port. To this end, we sold port services to third parties, reducing the terminal's fixed cost and pulp operating costs. In 2022, we received a favorable order from the Ministry of Infrastructure to expand the terminal. Construction for this project will also be carried out in 2023.



Port of Itaqui,  
in São Luís

### OPTIMIZING THE USE OF TRUCKS

As part of our digital transformation, the Paper and Packaging Business unit engaged with Alura to optimize trucking. Using mathematical modeling, our new system enables us to transport more materials in the same containers. In the first year, the initiative resulted in savings of R\$3 million.



# PROTECTING BIODIVERSITY

**|GRI 3-3\_304| – MATERIAL TOPIC: BIODIVERSITY**

According to the Global Risks Report 2023 published by the World Economic Forum and based on a global risk perception survey including more than 12,000 business leaders, biodiversity loss is the fourth most severe risk on a global scale for the next ten years — the first three are related to climate change and, therefore, are intrinsically linked to, and drive, biodiversity loss.

Brazil has the second largest forest area in the world — with approximately 500 million hectares — behind Russia but ahead of

Canada, China and the United States. While the area covered by natural and planted forests worldwide represents on average 31% of the total, in Brazil it is 59%.

However, since 1990, Brazil has lost 15.7% of all forest areas, according to the Global Forest Resource Assessment report published by the United Nations Food and Agriculture Organization (FAO) in 2020. This represents 92 million hectares, equivalent to 52% of the area lost across the entire planet in the same timeframe. In the last decade alone, between

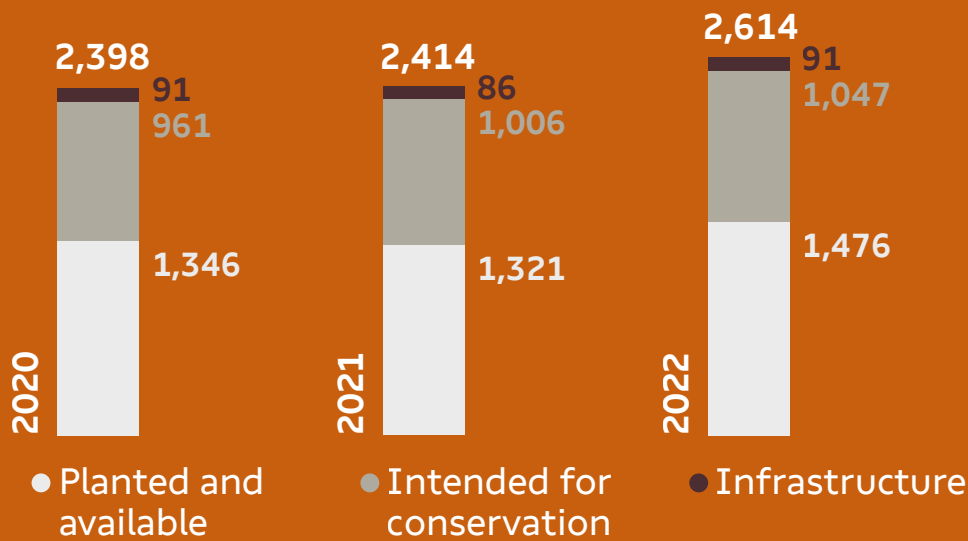
2010 and 2020, the net loss of forests in Brazil was 1.89 million hectares per year.

Our business model acknowledges an inseparable relationship with the environment. That is why we conserve, protect, restore and do not deforest as we conduct our activities.

Of the 2.6 million hectares of land we own or lease, 40% — or just over 1 million hectares — is designated for conservation. Of these, 93,594 hectares are considered to be High-Value Conservation Areas (HVCAs). We

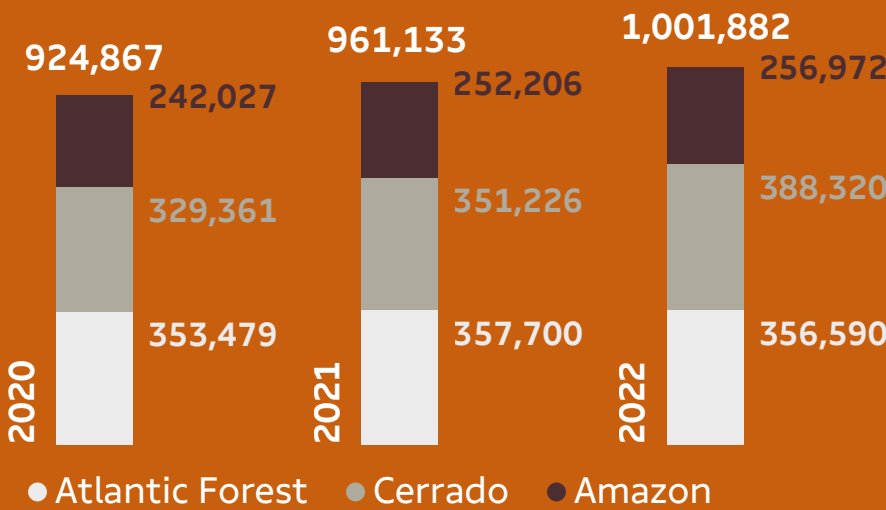
voluntarily identify and protect these areas for their significant ecological, environmental and/or social attributes, as they house endemic and endangered species, for example. These areas are monitored intensely to ensure consistent preservation over time. In addition, we have Private Natural Heritage Reserves (PNHR) that are classified as category IV by the International Union for Conservation of Nature (IUCN). Currently, we have 75 areas classified as HVCA and seven as PNHR in the three biomes in which we operate (Atlantic Forest, Cerrado and Amazon).

**TOTAL AREA, BY LAND USE  
(thousand ha)<sup>1</sup>**



<sup>1</sup> Does not include development, market and Veracel areas.

**PROTECTED HABITATS (ha)<sup>1, 2</sup>**  
GRI 304-3 | SASB RR-FM-000.A | SDG 6.6, 14.2, 15.1, 15.5



<sup>1</sup> Includes only areas that are considered to be eligible for conservation in protected biomes. Pampa is not reported. The 2021 data was revised, and starting in 2022, mangrove and restinga areas were incorporated into the three reported biomes. |GRI 2-4|  
<sup>2</sup> The total area (ha) restored considered for the target, adopts assumptions different from the reporting of the GRI 304-3 indicator (detailed in the Preparation Basis)

**HIGH-VALUE CONSERVATION AREAS – HVCA (ha)**

	2020	2021	2022
São Paulo	4,880	9,361	10,621
Mato Grosso do Sul	6,968	11,330	11,330
Espírito Santo-Bahia	20,214	19,986	18,965
Maranhão	24,773	53,524	52,678
Total	56,834	94,201	93,594





Photo: Eliza Carneiro

Itatinga River  
in Neblinas Park

## Planos da Mata

We participate in the Planos da Mata (“Plans for the Forest”) project, which aims to strengthen municipal governance for the protection and sustainable use of the Atlantic Forest, combining economic and social development through the creation of Municipal Plans for the Atlantic Forest (PMMAs), introduced by Law 11,428 of December 22, 2006. The project includes 33 municipalities in the states of Bahia, Espírito Santo, Minas Gerais and São Paulo, in which we have manufacturing and forestry operations and sustainability initiatives. We work with SOS Mata Atlântica, which partners with non-governmental organizations and local governments for the co-creation and subsequent monitoring of PMMAs. In 2022, the first Municipal Plan for the Conservation and Recovery of the Atlantic Forest was approved by the Municipal Environmental Council of Jambeiro. More information about the project can be found at [\*Planos da Mata – Suzano & SOS Mata Atlântica\*](#).

## NATIVE VEGETATION INCREASED 17% IN 10 YEARS

We monitor the evolution of our forests using technologies such as Lidar (light detection and ranging), which enable us to improve and refine data control. The comparison of these analyzes with the MapBiomas data source and our cartographic database allows us to refine the monitoring of vegetation cover in the areas we conserve.

According to this study, between 2010 and 2020, there was an average 17% increase in native vegetation in our areas designated for conservation in the Cerrado, Atlantic Forest and Amazon.

## BIODIVERSITY STRATEGY

Our biodiversity strategy is based on three premises:

### Zero deforestation

Our Wood Supply Policy establishes that no wood is planted or purchased from legally or illegally deforested areas;

### Sustainable forest management

Our forest management model prioritizes plantation productivity, disease and pest control, ecological restoration of habitats and conservation and maintenance of biodiversity, through practices that go above and beyond the legal requirements, ensuring the conservation of native vegetation areas and their ecological attributes.

### Management of environmental impacts

We work to avoid, reduce and mitigate the negative impact of our forestry operations on biodiversity and maximize the positive impact through conservation practices, actively participating in the regeneration of landscapes in the regions where we operate.

Our Corporate Environmental Management Policy establishes a risk assessment and determines measures based on the Mitigation Hierarchy Theory to prevent, mitigate, restore and compensate for negative impact, as well as to leverage the positive impact of our operations.

To manage the environmental aspects and impacts of our operations, all our operating units use the Environmental Aspect and Impact Matrix. This matrix classifies our activities according to the impact on the environment, determining the necessary control, mitigation and monitoring measures to address the ones that are identified as the most significant. By doing so, we ensure the incorporation of best practices in environmental management into the company’s production and operational processes.

“

Suzano’s biodiversity commitment was specifically designed to enable not only the restoration and the conservation of areas that are relevant to each biome, but also to provide socioeconomic benefits to the local communities. A very simple, but very powerful rationale, is the creation of a network with stakeholders aiming at identifying, protecting and sharing social, environmental and economic values.”

**Larry Cullen,**  
Research and Project  
manager at IPE



## THE VALUE OF FORESTS

Our journey of monetary measurement of environmental impact began in 2021, based on the Environmental Profit and Loss (EP&L) methodology. The initiative is part of a broader strategy to assess the combined impact across capitals (natural, social, human and financial) and is driven by the challenge of creating a regenerative economy.

Initially, this balance between costs and benefits of our forestry and industrial operations on natural capital assessed the following aspects: GHG emissions; water consumption; air pollution; water and soil pollution; and waste generation. In 2022, we added two aspects: biodiversity conservation and ecosystem services (in carbon removal and fixation, water conservation and erosion prevention, and maintenance of soil fertility). In 2023, based on the results of this assessment, we will be able to refine the methodology and incorporate improvements in the analysis.

## COMMITMENT: CONSERVE BIODIVERSITY

Threats to biodiversity loss were widely discussed during COP15, more specifically in relation to habitat restoration. Target 2 of the global biodiversity framework aims to ensure that by 2030 at least 30% of areas of degraded terrestrial, inland water, and coastal and marine ecosystems will be under effective restoration to enhance biodiversity and ecosystem functions and services, ecological integrity and connectivity.

The Convention on Biological Diversity (CBD) — the world's first treaty on the sustainable use, conservation and equitable sharing of benefits derived from biodiversity — recognizes that the fragmentation of habitats and ecosystems is one of the most serious threats to biodiversity worldwide.

Suzano's native forest and eucalyptus plantation



## ZERO DEFORESTATION

In addition to publicly disclosing our Zero Deforestation position, we publish a third party-endorsed Annual Zero Deforestation Report about our commitment to not deforest to produce eucalyptus. All wood that we process is covered by the forestry management or controlled wood standards of the FSC® (Forest Stewardship Council®) and PEFC (Programme for the Endorsement of Forest Certification) certifications, with the entire production process certified by the FSC® and PE Chain of Custody standards.

## SOCIAL AND ENVIRONMENTAL PERFORMANCE

In 2022, our forestry operations implemented the Social and Environmental Performance Index (IDSA), an instrument for control, communication, dialogue and cooperation that will help identify opportunities to improve performance and recognize the positive efforts and social and environmental best practices incorporated into our operations.



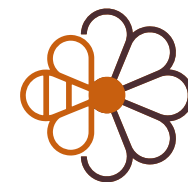
## HALF A MILLION HECTARES CONNECTED

In 2022, we began to implement the ecological corridors that are part of our 2030 biodiversity conservation target. This commitment is divided into three main lines of action:



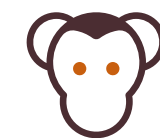
### Connect

In 2022, we planted the initial stretches of the Ecological Corridor, with 179 hectares of restoration in areas we protect (73 hectares in the Amazon, 52 hectares in the Cerrado and 53 hectares in the Atlantic Forest). We also implemented 93 hectares of biodiverse models in eucalyptus production areas in southern Bahia, in the Atlantic Forest corridor. Through these models, we created production plots of eucalyptus interspersed with other native species, increasing the flow of biodiversity in production areas.



### Engage

We aim to establish business models that can generate shared value in the sections where the corridor intersects with communities. In 2022, we created a community business to provide restoration services in the Atlantic Forest corridor, in the state of Espírito Santo, and a developed a plan for engagement with rural producers mapped along the corridors. We also made progress in mapping potential areas for the creation of Private Natural Heritage Reserves (PNHRs). Through an assessment along the corridors, we identified areas where the creation of a PNHR could leverage an integrated agenda of land management and vision, including the formation of mosaics of protected areas, for example.



### Protect

We seek to expand knowledge and increase the protection of species of primates and palm trees. We defined the key or priority species of these groups to be monitored along the three corridors. This initiative, aligned with the goal of generating shared value, considers the importance and potential for production and economic biodiversification and, consequently, the potential for sustainable production management, in the case of palm trees.

Photo: Eliza Carneiro



Juçara  
palm fruits  
(*Euterpe edulis*)

## MONITORING

We monitor the biodiversity of fauna (mammals, birds, amphibians and reptiles) and flora (shrubs and trees), in all our forest areas. Our goal is to assess the influence and interactions of forest management activities in natural areas, as well as the responses of local populations and conservation practices.

In more than 30 years of monitoring, we have recorded more than 4,000 species of fauna and flora, of which more than 400 are threatened with extinction and 350 are endemic. The continued presence and representativeness of these species in our areas attest to our contribution to the conservation of biodiversity, the maintenance of healthy ecosystems and the provision of environmental services.

According to the World Bank, more than 75% of food crops depend on animal pollination. However, more than 40% of known insect species have declined in recent decades.



We are already taking action to reverse this situation and, in 2021, we launched the long-term commitment to connect half a million hectares in the Amazon, Cerrado and Atlantic Forest biomes by 2030.”

**Carlos Aníbal**, Executive Director of Forestry, Logistics and Procurement



## Conservation of Threatened Species

One example of the active conservation of our forest areas is the Southern Muriqui (*Brachyteles arachnoides*), the largest primate in the Americas, which was first identified in the late 1990s in one of our properties within an area of Atlantic Forest conserved by Suzano in the city of Pindamonhangaba. There are currently only about 20 populations of this species in Brazil, which demonstrates the threat to this species, primarily due to the loss of native habitat. This motivated us to create the Southern Muriqui Monitoring Program, both in this area and in other adjacent areas.

For years, we have been conducting studies in collaboration with the Instituto Pró-Muriqui and we currently have a partnership with the Federal University of Viçosa to increase the use of thermal cameras in drones. This technology facilitates the identification of populations in the forest and, consequently, increases our ability to understand the dynamics of these animals in our areas and to plan strategic actions that can contribute to the conservation of the species. This program was referenced in the National Action Plan for Muriqui Conservation (ICMBio, 2011) and in the 2019 IUCN Red List.

We have a robust system to monitor and fight forest fires, which are a primary risk to biodiversity. We maintain towers, meteorological stations and a risk assessment process for new outbreaks. In addition to the activities of property surveillance groups, internal teams specialized in identifying social and environmental incidents visit the area periodically. Firefighting teams are trained and equipped to maintain strips of soil cleared of any vegetation to prevent fire from spreading, and to install signs to identify and mitigate illegal practices.



Southern Muriqui  
(*Brachyteles arachnoides*)  
Monitoring Program

Photo: STF/UFV - Universidade Federal de Viçosa



Araçari-poca  
(*Selenidera maculirostris*)  
in Neblinas Park

Photo: Ronaldo Cardoso

## RESTORATION

We see ecological restoration as a commitment and a responsibility. To meet legal and certification requirements, as well as voluntary commitments, since 2010 we have maintained the Ecological Restoration Program, which covers the three biomes in which we operate. The program was created to contribute to the conservation of biodiversity, generate social benefits and establish ecological corridors.

# 884,000

native trees planted in 2022

# 37,000

hectares in the process of being restored

# 12 million

native seedlings being planted



## E=ECOFUTURO SUPPORTING TRANSFORMATION

The Ecofuturo Institute is a non-governmental organization that we created in 1999 with the purpose of transforming people's relationship with nature through environmental conservation and knowledge sharing. Ecofuturo manages the Neblinas Park, our reserve with 7,000 hectares of Atlantic Forest in different stages of regeneration, in the cities of Mogi das Cruzes and Bertioga. In the Park, which functions as a laboratory for our restoration and conservation strategies, we carry out scientific research, forest management and restoration, ecotourism, environmental education and community participation activities.

In 2022, the reserve was one of the fields for the research *Um Tempo com e-Natureza* ("Time with Nature"), which investigates how contact with nature can offer benefits to health, well-being and quality of life. The study is being conducted by the Albert Einstein Israeli Institute of Research and Studies (IIEP), with support from the Boticário Group Foundation.

In 2022, Ecofuturo also received the Expression of Ecology Award in the Environmental Education and Conservation of Natural Resources categories and was officially named an "Actor" of the United Nations Decade on Ecosystem Restoration. "Actors" are prominent entities that develop conservation and restoration programs.

Since 2016, the Park has been recognized as an Atlantic Forest Biosphere Reserve by the UNESCO Man and the Biosphere Program.

Of its total area of 7,000 hectares, 518 hectares are dedicated to a Private Natural Heritage Reserve (PNHR).



Photo: Fernando Cavalcanti

Suspension walkway at Neblinas Park

“

We were able to engage 12 rural properties in neighboring communities. We mapped more than 3,000 hectares of standing forest area available for the development of projects on payment for environmental service, in addition to more than 3 hectares of areas with aptitude for the development of agroforestry systems. All this progress would never have been possible if the Ecofuturo Institute had not fostered the relationship and had not had a social and environmental approach in the area surrounding the park.”

**Vinicius Gaburro de Zorzi**,  
restoration specialist at The Nature Conservancy (TNC)



Photo: Luan Almeida



### JAGUAR PARADE

We sponsored the 3rd Jaguar Parade, an urban art intervention that displays stylized jaguar sculptures to draw attention to the threats to wild fauna, aligning with our commitment to biodiversity conservation. The exhibition took place in July in different locations in the city of São Paulo. In September, the sculptures were displayed in New York City during the week of the 77th UN General Assembly. At the end of the exhibition, all sculptures were auctioned to benefit jaguar conservation projects.





## RESTORATION ON ANOTHER LEVEL

In 2022, we formed a partnership to create Biomás, an impact business created to restore and conserve 4 million hectares (an area equivalent to Switzerland) in the Amazon, Cerrado and Atlantic Forest biomes over the next 20 years. Biomás, which was launched during COP27, includes five partners, in addition to Suzano: the banks Itaú Unibanco, Rabobank and Santander, the food company Marfrig and the mining company Vale. The company is focused on contributing to the transformation of the planet, by seeking to take ecosystem restoration to another level.

Biomás' initial plan is to set aside two million hectares for restoration (planting two billion trees to reintroduce native species to areas that have been degraded by pasture or agricultural activities) and another two million hectares for conservation and preservation (protecting forests and preventing deforestation). The company's business model is based on the sale of carbon credits.

The project shows the importance of having an increasingly systemic view of global

challenges. It is not possible to separate climate change from biodiversity or social issues. The partners have complementary skills, which may be leveraged by universities, research institutes, NGOs and other companies.

In addition to high-quality carbon credits, all Biomás projects are expected to produce positive social impact, including job creation and income generation for local communities. The company will receive an initial contribution of R\$20 million from each partner to finance the first years of activity. The forecast is to reach approximately 900 million tons of carbon equivalent removals and avoided emissions in two decades.

The first stage of the project will consist of implementing pilot projects, identifying and prospecting areas, supporting seedling nurseries, engaging local communities, discussing the implementation of the project in public areas and partnering with carbon credit certification platforms. From 2025, the goal is to scale up to a target of 4 million hectares.

## MAINTAINING HEALTHY FORESTS

All wood used in pulp manufacturing (both wood harvested from our farms and wood purchased from third parties) is certified and complies with the standards established by Brazil's National Health Surveillance Agency, the U.S. Food and Drug Administration (FDA), and the German Bundesinstitut für Risikobewertung (BfR). In 2022 alone, we increased our certified eucalyptus area by 200,000 hectares.

We are committed to mitigating our impacts, optimizing the use of fertilizers and soil correctors and reducing water use and waste disposal, while also respecting the surrounding communities.

Our challenges for the coming years include improving our mean annual increment (MAI, a productivity indicator – m<sup>3</sup>/hectare/year), reverting it into higher pulp productivity, as well as making our eucalyptus areas more resilient and adaptable to climate change.

We paid special attention to enhancing our nurseries, approving the construction of two new ones and the expansion of five existing ones. We also partnered with six suppliers to increase production capacity in Mato Grosso do Sul and São Paulo with high-quality seedlings and materials.

**13%** of the areas implement REGROWTH MANAGEMET, resulting in  
**38%** savings in FOREST FORMING costs when compared to restauration



Control Tower  
in Imperatriz

Photo: Suzano Divulgação

## INCREASED SAFETY WITH CONTROL TOWER

One of the most important Forestry Operation initiatives in 2022 was the implementation of the Integrated Information and Control Center, also called Control Tower. The tower assists and monitors the cycle of forestry activities through online access to field information and the integration of systems, processes and people.

Similar to a control panel, it combines embedded technology and artificial intelligence to monitor operations. All equipment is monitored in real time, which leads to increased productivity, team safety, mechanical availability and operational efficiency.

The tower also improves the logistics cycle, reducing costs and fuel consumption and improving truck productivity. Onboard telemetry systems and cameras installed on the trucks also support drivers by sending fatigue and behavior alerts, ensuring safer trips.

The project was piloted in 2021 and was fully implemented at our Imperatriz Unit in 2022. In 2023, we plan to implement a new Control Tower for operations in the states of Bahia and Espírito Santo.

## EFFICIENCY

We apply the most advanced digital methods to optimize the efficiency of our farms. For example, one of our main innovations in forestry was the implementation of equipment that performs automated mechanical planting of eucalyptus seedlings — one of the first instances of this kind in the world. The equipment (developed in partnership with Komatsu) is initially in use in the Cerrado Project and is expected to be extended to other regions.

We also use software tools to optimize logistic routes, reducing fuel consumption. In the field, precision forestry methods are used to dispense an exact measure of fertilizer to enable optimum yields. Interconnected harvesting equipment also yields gains in operational efficiency through faster and safer decisions.

To support our goals to improve efficiency and reduce costs, we established three Integrated Maintenance Centers in the states of Bahia, Maranhão and Mato Grosso do Sul. The Centers have state-of-the-art lathes and machining equipment to increase the speed and quality of maintenance of trucks, machines and other equipment.

In São Paulo, we improved wood transportation through truck modifications to increase the shipment load per truck and optimize the operation. In Aracruz, we extended the life of trailers by up to three years by servicing them in company-owned garages. Also, for the first time, we increased the synergy between units in the use of equipment: we moved harvesters from Maranhão during the local rainy season (when they are not in use) to be used in São Paulo.



## BIOLOGICAL CONTROL

We continuously invest in biological control alternatives to replace chemical pesticides. In 2022, we produced a record number of 205 million natural enemies of pests in laboratories, which were released in our areas, avoiding the harm caused by pests and the use of chemical pesticides in almost 300,000 hectares. We believe that, by scaling up production and acting preventively, we will reach an ecological balance that will eliminate the need for agrochemicals.

Biotechnology is also part of the effort to increase forestry productivity, reducing the need for new farm areas and helping increase the resilience of forests. The strategies we adopt include genetic improvement and eucalyptus adaptation. Since 2004, we have complied with the responsible forest management standards of the Forest Stewardship Council® (FSC®) certification. We also follow the guidelines of Cerflor's<sup>1</sup> NBR 14789 Forest Management.

## 375 million

trees have been planted since the beginning of Tetrys project, corresponding to an area of 260,000 hectares.

<sup>1</sup> License codes: FSC-C009927, FSC-C100704, FSC-C110130, FSC-C155943 and FSC-C118283

FuturaGene  
Lab, in  
Itapetininga

Photo: Fernando Cavalcanti



## DIGITAL ANALYTICS

Some of the solutions to increase the productivity and resilience of our eucalyptus farms involve digital analytics.

One example is Tetrys, a first-of-its-kind model incorporated into our forestry activities that aims to increase the success of the planting stage based on a better match between eucalyptus clones and the different areas managed by the company. The project combines analytics, big data and artificial intelligence to assess numerous scenarios to determine the best clonal allocation considering variables such as temperature, rainfall, soil type and texture, and altitude.

In addition to improving the success of planting activities and increasing productivity by 2%, Tetrys reduces potential environmental risks, including the incidence of pests and diseases. The development of Tetrys involved more than 80 people and resulted in a 15-fold increase in the ability to

generate clone allocation scenarios compared to previous procedures. Since the beginning of the project, more than 375 million trees have been planted, corresponding to an area of 260,000 hectares.

Another initiative involves the development of Management 4.0., which, in 2022 alone, included the three new tools. The first, called the Climate Fingerprint, enables us to broaden the assessment of climate impacts on productivity and aims to support the process of selecting more resilient forests. Model C14 optimizes the selection of areas with higher productive potential and lower risk for regrowth management, contributing to the reduction of Capex investments for forest formation. Finally, the Fênix system aims to enhance the governance in the management of areas affected by forest accidents, to improve the use of these areas and of wood, as well as to address compliance and risk management issues.

“

We believe that, by scaling up production and acting preventively, we will reach an ecological balance that will eliminate the need for agrochemicals.”

**Fernando Bertolucci**, Executive Director of Research and Development





Photo: Fernando Cavalcanti

Employees at FuturaGene in Itapetininga

## FUTURAGENE

FuturaGene, our Biotechnology Division, conducts R&D at its facilities in Israel and Brazil to maximize forest productivity, resilience and sustainability, utilizing state-of-the-art technologies including bioinformatics, genomics, gene transformation and gene editing.

FuturaGene’s first genetically modified eucalyptus, with enhanced yield, was approved by the National Technical Commission on Biosafety (CTNBio) for commercial use in Brazil in 2015. In 2021, FuturaGene received regulatory approval in Brazil for its first herbicide tolerant (HT) eucalyptus, which provides an efficient and environmentally safe alternative for control of competitive weed species, precluding damage to sensitive young plantlets caused

by herbicide drift, as well as a significant reduction in operating costs and improvement in operational working conditions.

In addition to the enhanced eucalyptus varieties described above, FuturaGene submitted dossiers for the commercial approval of five new genetically modified eucalyptus varieties to CTNBio in 2022. Four of these varieties are herbicide tolerant and the fifth is the first-ever insect resistant eucalyptus variety, which has demonstrated high efficiency in controlling caterpillars, a key defoliating pest in the forest sector that is causing extensive damage and yield loss. This insect resistant eucalyptus allows control of the pests from day one of infestation, before any damage has been done or is visible, reducing the use

of pesticides, preventing defoliation and potentially extensive yield loss.

Sustainable intensification of renewable forests, using fewer resources while lowering fossil fuel utilization to produce wood fiber and reducing extraction from natural forests, is a prerequisite to producing more wood to meet a potential tripling of demand in the next 30 years. The genetically modified eucalyptus varieties developed by FuturaGene are part of the toolbox required to attain such sustainable intensification.

FuturaGene continues to share value publicly, as its research and know-how can be beneficial to forest health or food security. In this context, in January 2023, FuturaGene released details of a new high

quality eucalyptus genome to the general scientific community. This published data is the highest quality genomic data produced for eucalyptus to date. This work, carried out in collaboration with Corteva Agriscience, will facilitate research to advance understanding and innovation in eucalyptus cultivation and future research for the sustainable production of biomaterials.

The public sharing of this research data complements the previous donation of a research clone and a protocol for its genetic transformation to public science at Oregon State University and the grant, royalty-free, of its yield enhancing technology to the Donald Danforth Plant Science Center for the improvement of sustenance crops for the poorest regions in Africa.



# WATER CONSERVATION

## COMMITMENT: PROTECTING OUR WATER

[GRI 3-3\_303] – MATERIAL TOPIC: WATER  
SASB RR-PP-140a.2, RT-CP-140a.2

The efficient and responsible use of water is critical for us since this is an essential resource for the balance of ecosystems and the perpetuity of our business throughout the entire value chain.

Pulp mills function as water reservoirs: approximately 80% of the water withdrawn is recirculated in the production process. If we follow a drop of water from the moment it is withdrawn, we will see that it circulates through our processes approximately 4.5 times before it is sent for treatment and returned to the water body, as per quality standards.

Our total water withdrawal in 2022 remained similar to 2021. We reduced our absolute withdrawal<sup>1</sup> by 1.5% and reached a withdrawal intensity of 25.9 m³/t, which is very close to the target we set for 2030 of 25.3 m³/t<sup>1</sup>, and an almost 13% reduction since 2018.

<sup>1</sup> The water withdrawn considered for the target adopts assumptions other than the GRI 303-3 report (detailed in the [Preparation Basis](#)).

### WATER WITHDRAWAL BY SOURCE (thousand m³)<sup>1,2</sup>

[GRI 303-3] SASB RR-PP-140a.1, RT-CP-140a.1 | SDG 6.4

Source	Total withdrawal		
	2020	2021	2022
Industrial operations			
Surface water, including wetlands, rivers, lakes and oceans	304,383	317,149	286,701
Groundwater	1,405	1,388	1,307
Rainwater	0	271	221
Total	305,788	318,808	288,230
Forestry operations			
Surface water, including wetlands, rivers, lakes and oceans	1,507	1,500	1,506
Groundwater	300	141	145
Total	1,807	1,641	1,651
Combined total	307,595	320,449	289,881

<sup>1</sup> All water is withdrawn from fresh sources (≤ 1,000 mg/L of total dissolved solids).  
<sup>2</sup> Water withdrawal in areas under medium to high risk of water stress began to be monitored in 2021. The measurement considered the results of the assessment of exposure to risk of water stress using the Aqueduct Water Risk Analysis tool. The Suzano and Rio Verde Units were the only ones classified as medium to high-risk exposure.

## PROTECTING OUR WATER PROGRAM

In 2022, we launched the Protecting our Water Program to encourage suppliers to better manage water use by monitoring and analyzing risks and opportunities. We selected 100 strategic suppliers based on our social and environmental risk matrix to respond to CDP’s water questionnaire, and had a 76% participation rate.

The initiative is expected to last for three years. At the end of the first year, companies will receive a score from CDP and, based on their performance, will be encouraged to establish goals and initiatives to improve their water use performance. At the end of the third year, we will be able to measure progress and recognize suppliers that excelled.

## WATER STRESS

We maintain initiatives to protect springs and monitor, analyze and mitigate the potential impacts of our operations on water resources. We implement forest management activities in a total of 88,400 hectares of planted areas to increase water availability in the 44 critical watersheds in the areas where we operate.

To assess the risk of water stress in our industrial units, we use the Aqueduct Water Risk Analysis tool. Most sites (Imperatriz, Jacareí, Limeira, Mucuri and Três Lagoas) are in locations with low water stress risk (<10%). Aracruz is considered to be in an area with medium-high water stress risk (20-40%) and the only plant in a high-risk area (40-80%) is Suzano, in São Paulo, due to the high rate of urbanization.

Currently, the Suzano Unit uses water from the Tietê River. To prepare the unit for more critical periods of water availability, we invested in a system to withdraw and treat water from the Taiaçupeba River. The system commenced operation in 2022, providing an additional volume of water that increases the unit’s resilience to water scarcity. Also, water from this river is of higher quality — it can be reused more times in the production process, consequently reducing the volume withdrawn.

In the Aracruz Unit, the water withdrawn represents only 1.3% of the historical average flow of the Doce River. In addition, the unit has three water reservoirs with a total storage capacity of 46 million cubic meters (enough for approximately 90 days of production).





## Industrial Strategies

Our industrial operations follow international best practices in water use, established by the EU Integrated Pollution Prevention and Control (IPPC), and the guidelines from the World Bank's International Finance Corporation (IFC). Consumption reduction strategies include several reuse activities:

- Recovery of cooling water and water from dryers
- Recirculation of water in the bleaching circuit
- Optimization of the treatment of condensate from the chemical recovery process

Most of our units have an effluent treatment plant. The only exceptions are the tissue converting units in Cachoeiro do Itapemirim and Maracanaú, which use third-party sewage treatment services.

One of the highlights in consumption reduction in 2022 was the Imperatriz Unit, which reduced the volume of water withdrawn<sup>1</sup> by 7%, by reusing osmosis water as cooling tower makeup water and installing a self-cleaning filter in the fiber line. At the Suzano Unit, the volume of water withdrawn<sup>1</sup> was approximately 6% lower, thanks to the use of clarified water in the detachment shower and the installation of a water

<sup>1</sup> The water withdrawn considered for the target adopts assumptions other than the GRI 303-3 report (detailed in the preparation base).

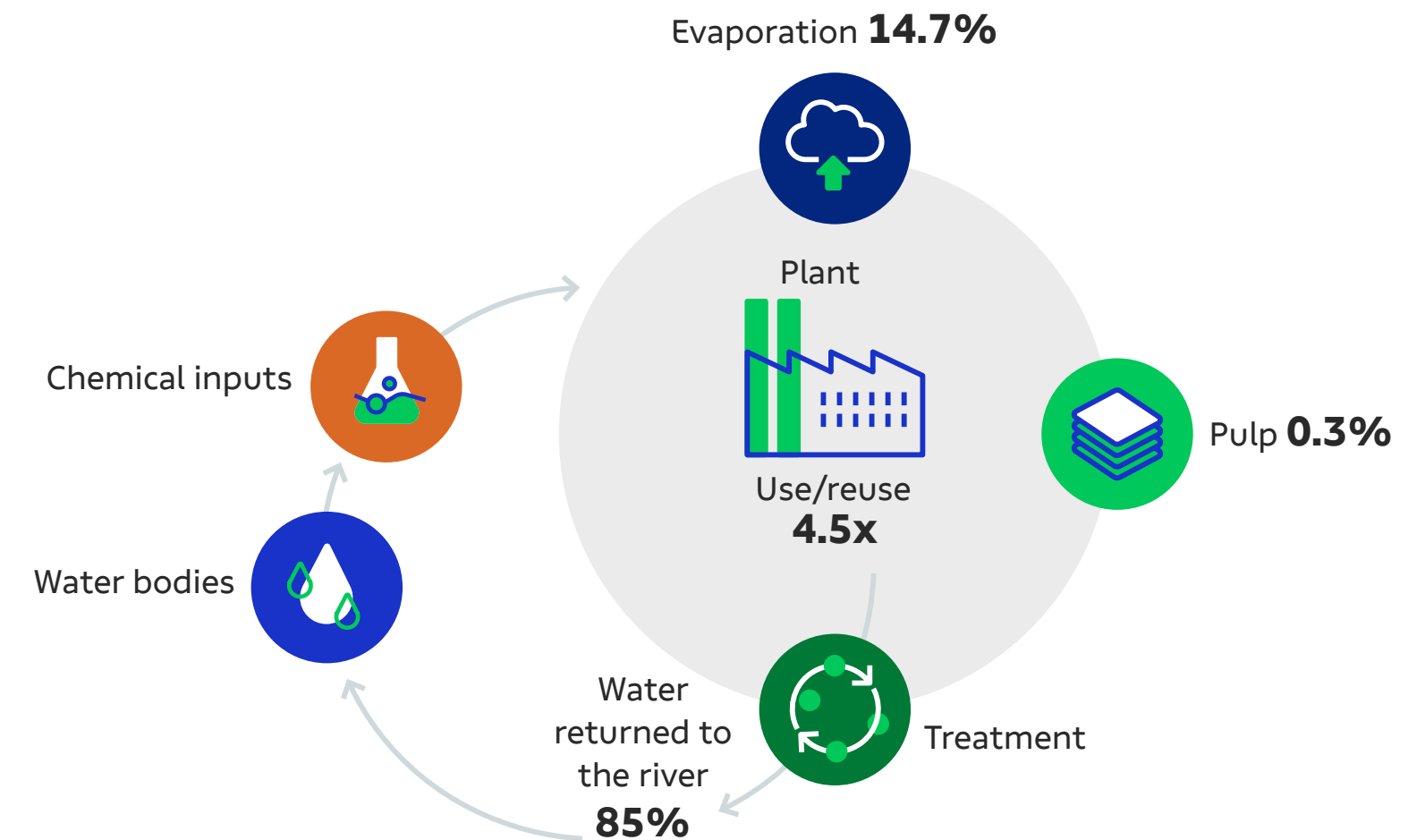
treatment station at a new collection point on the Taiaçupeba river. At the Três Lagoas Unit, key consumer areas receive two daily reports, prepared using artificial intelligence, on the performance of water indicators.

The discharge of effluents is equal to most of the water that is withdrawn and returned to water bodies after primary and secondary processes and treatment, in compliance with legal federal and regional parameters. These effluents are continuously monitored online using flow meters at the exit of the effluent treatment plant, and the analysis of effluent samples is carried out by company-owned and third-party labs.

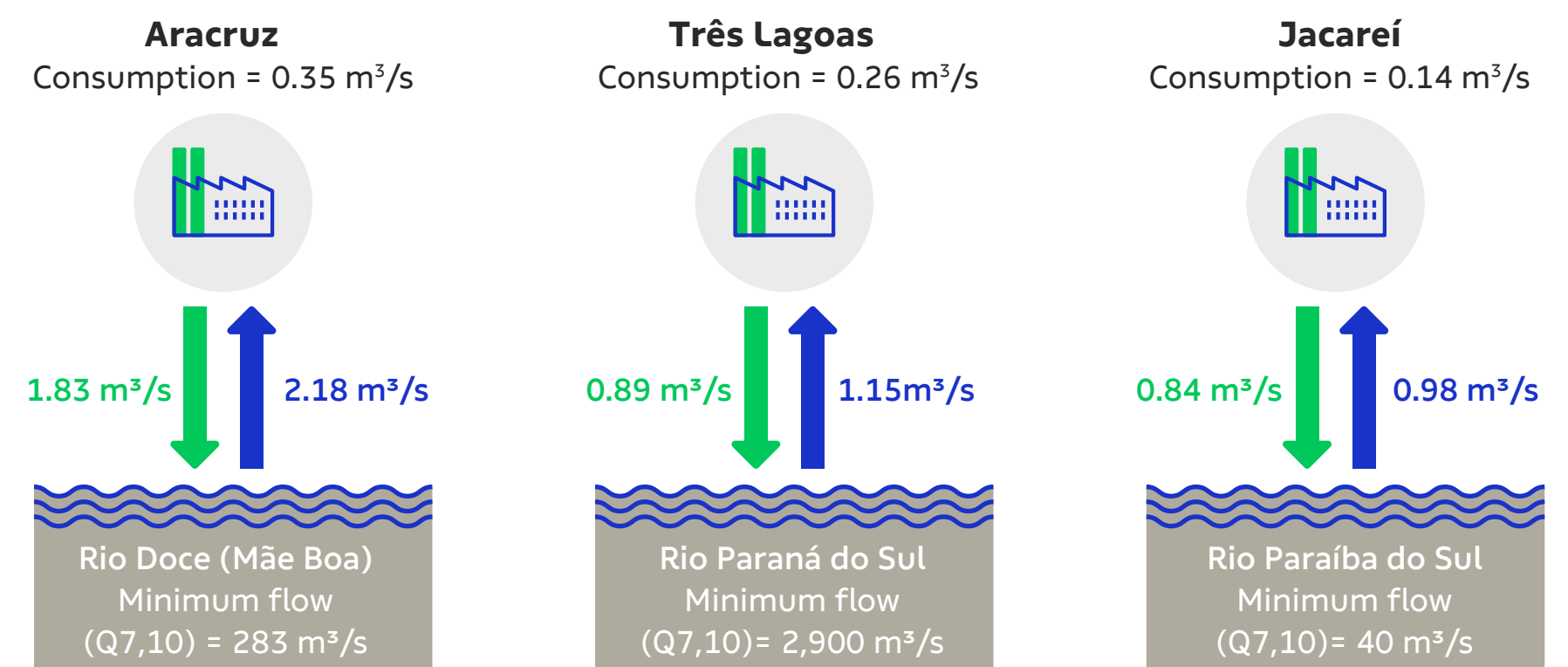
## Forestry Strategies

In our forestry management, we use the river basin where we operate as planning units, and follow an approach based on hydro-solidarity with the ecosystems and other users. All units assess water quality and availability periodically, which includes monitoring water withdrawal volumes and licenses issued by environmental agencies. A standard operating procedure guides the sustainable management of water resources in the stages of planning, withdrawal and use of water in forestry, harvesting and logistics activities.

## WATER USE CYCLE IN PULP PRODUCTION



## WATER CONSUMPTION IN THE UNITS





Additionally, we use different technologies to make forestry management recommendations, aiming to reduce the consumption of water resources by our farms, especially in watersheds that are considered critical. One of the main measures we adopted in 2022 was to change the arrangement of forest plantations. This lowered the density of trees in the areas of critical basins, which total 7,284 hectares.

We consider critical basins to be those:

- At risk for water scarcity due to natural characteristics (e.g., weather, topography, soil type, etc.).
- In which types of land use may impact the supply of water to other users.
- In which we have a relevant occupation (equal to or more than 30%), so that our practices can have an effect and produce the best results.

Our commitment to protecting water includes the adoption of management recommendations — age mosaics, seven-year harvesting cycles, and occupation and farm density planning — in approximately 90,000 hectares of areas that meet these criteria.

Additionally, in 2022 we started to evaluate opportunities in partnership with other local stakeholders to implement water conservation measures beyond our areas, including recovery of springs, restoration of degraded areas, and reduction of water withdrawn for irrigation using new technologies.

Photo: Fernando Cavalcanti



## MICRO BASINS IN FOCUS

For almost 30 years, we have maintained the Microbasias (“Micro basins”) project, which includes the use of sensors to assess water balance components and gain knowledge regarding the relationships and effects of forest management activities around 10 experimental micro hydrographic basins, ensuring sustainable management and conservation of biodiversity. Data from a network of 71 company-owned meteorological stations distributed throughout the forest base, combined with another 63 public stations, is used to assess the effects of climate on forest productivity and water supply in watersheds. Additionally, equipment installed in a network of five flow towers monitors the water and carbon balance continually.

## WATER USE

The amount of water used by eucalyptus planted in our farms to develop is similar to the amount used by native forests (Atlantic Forest and Cerrado biomes). However, eucalyptus can produce more wood using the same amount of water. Our production model, which integrates eucalyptus with native vegetation, in association with responsible management practices, is critical for water conservation.

Appropriate management of forests can guarantee a regular supply of groundwater, an important phenomenon for regulating the flow and quality of water in rivers, especially in dry seasons. In addition, our water quality monitoring efforts in the locations where we operate show that the activities carried out in our farm areas have not affected the quality of the available water. As part of our ongoing effort to improve our processes, we are committed to implementing local mitigating measures to prevent water shortages.





# CIRCULARITY AND ADDED VALUE

## COMMITMENT: REDUCE WASTE

We made a public commitment to reducing the amount of industrial solid waste sent to landfills by 70% by 2030. In 2022, we exceeded our target<sup>1</sup> for the year and reached an intensity of 18.4kg/ton of saleable pulp and paper, an improvement of 84% compared to 44.3 kg/ton in the base year 2018.

This achievement is a result of investments in smart treatment technologies. One example is the transformation of inorganic waste into soil acidity correctors, which are used in our forestry operations and sold to other agricultural companies. By doing so, we divert this type of waste from landfills and adapt our practices to the concept of circular economy. We have these types of treatment centers in our Imperatriz, Jacareí and Três Lagoas Units, which, in 2022, produced a combined total of 145,000 tons of soil corrector.

In 2022, we sold approximately 490,000 tons of industrial and recyclable waste, generating R\$11.6 million in revenue. And our new Ribas do Rio Pardo Unit, which is currently under construction, will be the first to have a waste treatment facility to divert industrial waste from landfills.

In some of our units, we use biological sludge from the effluent treatment plant in the biomass boiler as energy. At the Mucuri Unit, in 2022, we worked together with a supplier in the implementation of a composting process that can transform organic industrial waste into fertilizers. In 2022, approximately 3,500 tons of this organic compound were sent to the supplier's plant. As a result, waste at the Mucuri plant dropped from 70kg/ton of pulp in 2020, to 48kg/per ton in 2022.

Our commitment to circularity is integrated into the routine operation of our industrial units, with a focus on reducing waste generation and disposal in landfills (which ends the life of materials) and increasing reuse and recycling.

There are additional benefits: studies are already under way to compost inorganic waste. We estimate that, in two years, we will be able to use all this waste in the production of fertilizer in a model that exemplifies the circular economy. This initiative reflects our belief that the only way to improve the planet is by working together: as we reduce our costs, our composting partner invests in the local economy, creates jobs and generates revenue by selling a high-value agribusiness product.

## 490,000 tons

of industrial and recyclable waste were sold in 2022, generating R\$11.6 million in revenue

<sup>1</sup> The target KPI is measured by dividing the volume, in kilograms (kg), of industrial solid waste sent to company and/or third-party landfills by the production of pulp and paper, in tons.

## LONGER LIVES FOR TIRES

In 2022, we implemented a project to extend the life of tires for tractors used in eucalyptus harvesting and, consequently, reduce waste. The innovation consists of applying an elastomer, a highly elastic material, to prevent tires from cracking even when they become deformed. It is estimated that this project will result in a 400% increase in the life of the tires, from 3,000 to 15,000 hours on average. In addition to a significant gain in productivity, the initiative — developed in partnership with Gripmaster, a specialist in tires and sustainable solutions for off-road machines—could prevent the disposal of 73 tons of tires in the first 18-month cycle.



Waste Generated

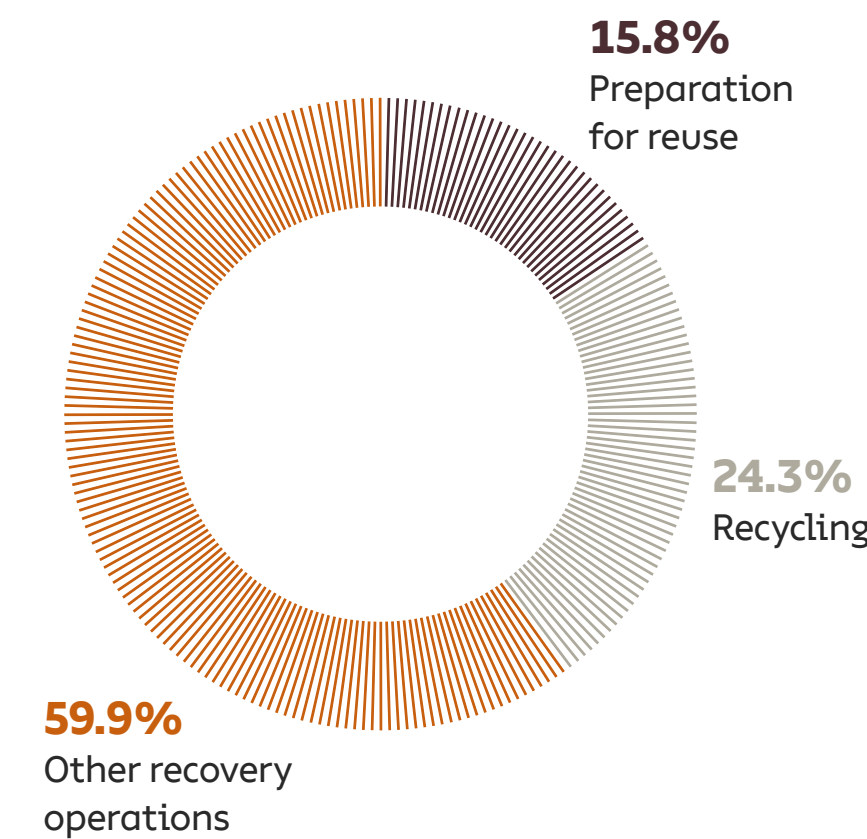
Our commitment to eco-efficiency led to a lower specific waste generation compared to the previous year, in addition to meeting our internal targets. Our hazardous waste reduced by 9.5% (from 0.12 kg/ton produced in 2021 to 0.11 kg/ton in 2022 — our target was equal to or below 0.12 kg/ton). Non-hazardous waste reduced by 0.4% (from 127.2 kg/ton to 126.7 kg/ton, surpassing our target of generating up to 130 kg/ton).

WASTE GENERATED IN INDUSTRIAL OPERATIONS,  
BY TYPE (ton) |GRI 306-3| 3.9, 6.6, 11.6, 12.4, 12.5, 15.1

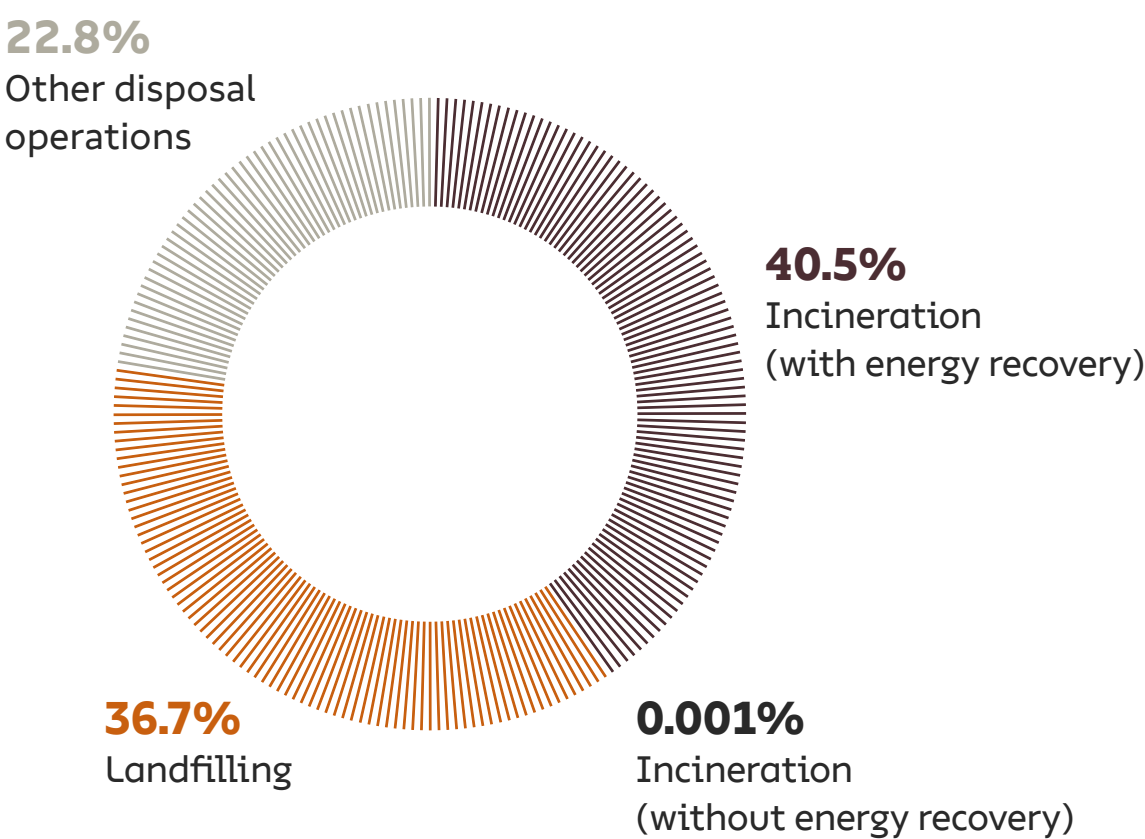
	2020	2021 <sup>1</sup>	2022
Non-hazardous waste	1,417,101	1,425,515	1,442,134
Hazardous waste	1,068	1,326	1,200
<b>Total</b>	<b>1,418,169</b>	<b>1,425,515</b>	<b>1,443,334</b>

<sup>1</sup> Due to a calculation adjustment, a correction was made in the 2021 data for non-hazardous waste and, consequently, the total. |GRI 2-4|

WASTE DIVERTED FROM DISPOSAL (t)  
|GRI 306-4| SDG 3.9, 11.6, 12.4, 12.5



WASTE DIRECTED TO DISPOSAL (t)  
|GRI 306-5| SDG 3.9, 11.6, 12.4, 12.5



Recycling

In 2022, we use more than 150,000 tons of recycled or recovered fiber in our paper and packaging production, which is similar to the amount we used in 2021.

RECYCLED AND/OR RECOVERED FIBER, BY PRODUCT SEGMENT (TON)  
SASB RR-PP-430a.2, SASB RT-CP-410a.1

	2020	2021	2022
Cut size	17,702	14,002	23,866
Uncoated	23,729	52,028	46,649
Coated	24,606	24,847	26,148
Paperboard	26,195	21,980	28,315
Toilet paper	7,556	10,004	11,421
Paper towel	4	240	344
Machines C1 and C2 (Rio Verde)	7,958	5,453	14,969
<b>Total</b>	<b>107,749</b>	<b>128,555</b>	<b>151,712</b>

Photo: Marcio Schimming



Employee at the Imperatriz Unit



## ADVANCES IN THE CIRCULAR ECONOMY

Optimization of manufacturing processes promotes better use of natural resources, including the reuse and recycling of industrial waste.

### Lime mud, grits, dregs and boiler ash

Treatment centers at the Imperatriz, Jacareí and Três Lagoas Units transform waste into SOIL CORRECTOR used on Suzano farms.

**145,000**

tons produced in 2022.

### Primary sludge

Fibers that are lost in the pulp bleaching and drying steps are used by partners in PAPER PRODUCTION.

**125,452**

tons of primary sludge sold in 2022.

### Biosludge

Organic waste generated in the treatment of effluents are mixed with biomass and used as a SOURCE OF ENERGY for the boilers.

**90%**

of sludge reused in Jacareí.

### Black liquor, a liquid biomass

Black liquor is a by-product of the wood kraft process that is rich in lignin and, after being concentrated, reaches excellent calorific value. It is used in chemical recovery boilers as fuel for the production of CLEAN AND RENEWABLE ENERGY.

**90%**

of the energy consumed in the industrial process originates from black liquor.

Photo: Fernando Cavalcanti



Employee  
at the Jacareí Unit



6.

Agriculture  
initiative in  
the Bela Vista  
Community,  
in Mucuri

Photo: Fernando Cavalcanti

FOR PEOPLE  
AND HUMAN  
RIGHTS

CARRING



# ORGANIZATIONAL CULTURE AND STRATEGY

We strive to create an increasingly diverse, inclusive and respectful work environment through an internal culture that fosters diversity and the incorporation of our Culture Drivers into our routine.

In 2022, with the end of mobility constraints due to the COVID-19 pandemic, we renewed close connections with our people in industry and forestry operations, offices and laboratories, through a new management model based on connecting and caring, and simplifying our processes.

“We worked with our senior executives and top management to help them become role models and engage them in internal processes. We plan to cascade this approach to all parts of the company in 2023, making our organization more flexible, agile and focused on our shared commitments.”

**Caroline Carpenedo,**  
Director of People and Management

## AGILE INTERNAL PROCESSES

The focus on simplifying processes drove the *EvoluiRH* (“EvolveHR”) project. This new app allows employees to perform different tasks, such as scheduling vacations and tracking overtime, directly from a smartphone.

We also introduced a new performance assessment model, *Sommos*, which includes 360 degree evaluations not only from leaders, but also from peers, partners and team members. This initiative was the main milestone of our cultural evolution

in 2022 as it simplifies and amplifies learning opportunities. In the new model, we increased the weighting allocated to behavioral aspects of performance alongside technical achievements.

In 2023, all employees will have access to the system, a significant new development since performance reviews have not previously included 100% of our employees. In 2022, for example, 5,450 people, or 29.3% of company employees had performance assessments. **[GRI 404-3] SDG 5.1, 8.5, 10.3**

## NUMBER OF EMPLOYEES AND CONTRACTORS BY REGION<sup>1</sup> **[GRI 2-7, 2-8] SDG 8.5, 10.3**

	2020		2021		2022	
	Employees	Contractors	Employees	Contractors	Employees	Contractors
North	981	3,796	869	3,405	785	218
Northeast	8,282	3,102	4,790	3,142	5,043	7,169
Midwest	2,061	4,179	2,737	4,189	3,696	4,771
Southeast	7,281	10,386	7,940	9,605	8,645	11,946
South	76	45	79	34	74	28
Abroad	247	0	264	0	300	0
<b>Total</b>	<b>18,928</b>	<b>21,508</b>	<b>16,679</b>	<b>20,375</b>	<b>18,543</b>	<b>24,132</b>

<sup>1</sup>All Suzano employees have a permanent, full-time employment contract. Contractors include workers hired from service providers to perform set functions within Suzano. The data includes employees from the Ecofuturo Institute and Facepa, which was fully incorporated by Suzano in 2020. In 2021, the data also includes FuturaGene, which was incorporated by the company. The figures published in 2020 and 2021 were revised and are now reported on a consolidated basis. **[GRI 2-4]**

## OUR EMPLOYEES AT END-YEAR 2022:

**42,675**  
workers:

**18,543**  
company employees

**24,132**  
contractors

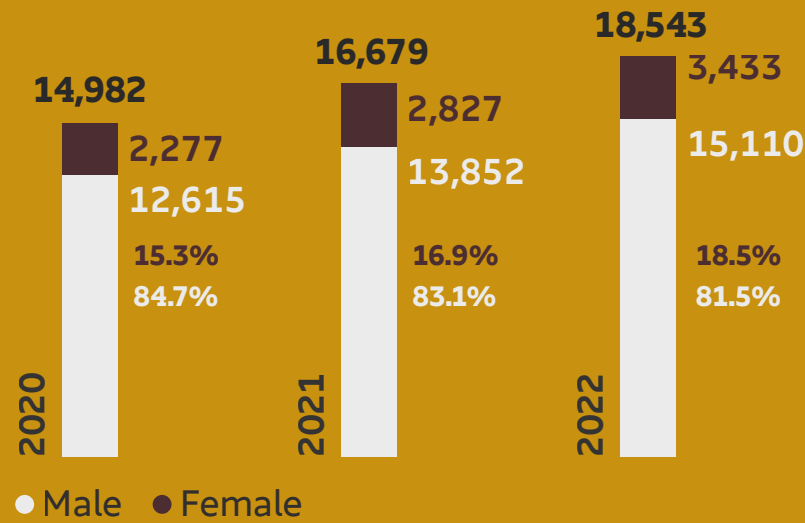
Among company employees:

**18.5%** women

**56.2%** Black people

## NUMBER OF EMPLOYEES, BY GENDER

**[GRI 2-7] SDG 8.5, 10.3**





# DIVERSITY, EQUITY AND INCLUSION

## COMMITMENT: PROMOTE DIVERSITY, EQUITY AND INCLUSION

[GRI 3-3\_405\_406] – MATERIAL TOPIC: DIVERSITY, EQUITY AND INCLUSION

We believe that encouraging diversity, equity and inclusion (DE&I) is both a responsibility and a business strategy. In a diverse and inclusive environment, employees are more engaged, creative and collaborative, and the rates of attraction and retention of new talent increase. Our Plural Program was designed to ensure respect for individuality, increase diverse representation and encourage the participation of employees in five action fronts:

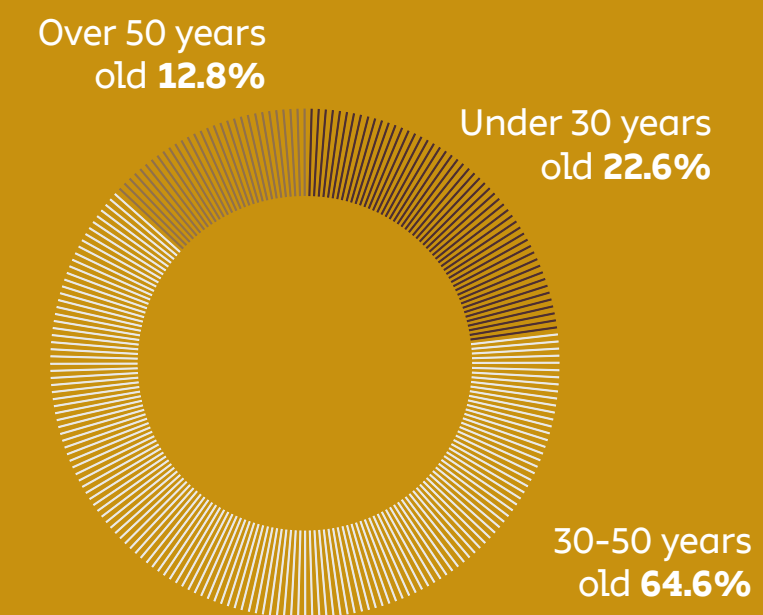
- Generations
- LGBTQIAP+
- Black people
- Women
- People with disabilities

We are signatories to three important initiatives to advance women in business:

- Equity is Priority Program of UN Women
- The *Mulher 360* (“360 Woman”) Movement
- The *Rede Mulher Florestal* (“Forestry Woman Network”)

### EMPLOYEES BY AGE GROUP

GRI 405-1 | SDG 5.1, 5.5, 8.5



### EMPLOYEES BY FUNCTIONAL CATEGORY<sup>1</sup>

[GRI 405-1] SDG 5.1, 5.5, 8.5

	2020	2021	2022
Administrative	2,993	3,344	3,659
Consultant	611	705	807
Coordinator	300	361	382
Director	17	21	26
Executive director	11	13	13
Specialist	47	61	67
Executive manager	95	117	125
Functional manager	293	325	357
Operational	10,198	11,331	12,651
Supervisor	326	400	455
CEO	1	1	1
Total	14,892	16,679	18,543

<sup>1</sup>In the 2022 cycle, the 2020 and 2021 data were reviewed, since information from the Ecofuturo Institute, FACEPA and FuturaGene started to be reported together with Suzano.

Employee at  
the Suzano Unit

Photo: Fernando Cavalcanti



In 2022, we made progress regarding our five DE&I-related Commitments (*read more on [page 22](#)*). Our progress has evolved at a slower pace than expected. Among the challenges we have faced are the establishment of an inclusive culture in all aspects and at all levels, and inclusive access to professional training.

To address internal barriers to inclusion, in 2022 we invited approximately 350 women and Black employees to join the *Elos D+* (Involving Leadership from a Suzano Perspective) Program. The 18 months duration program includes

## WOMEN'S ENTREPRENEURSHIP

We made the decision to invest up to R\$5 million in WE Ventures, a fund launched in 2019 that supports startups led by women and is sponsored by Microsoft, Brazilian Micro and Small Business Support Service (SEBRAE), M8 Partners and Bertha Capital.

The fund encourages women's entrepreneurship through training courses and investments in companies started by women. A total of 1,200 startups are currently registered with WE Ventures, which has raised R\$55 million and invested in four companies: [Pack ID](#), [Mobees](#), [Smarkets](#) and [We Impact](#).

workshops on beliefs and biases, practical activities, networking opportunities and 50% scholarships for English classes. In addition, our general awareness-raising and literacy activities aim to prepare inclusive leaders and help employees understand how discrimination and prejudice are often unconsciously manifested.

In addition, we hosted the second Contributing to the Future mentoring program. Like *Formare*, this is also a volunteer project that involves trainees, who act as mentors in the preparation of Black, LGBTQIAP+ and PwD

## VOLUNTEERING

We value and encourage volunteer work. In 2022, our volunteer programs benefited (directly or indirectly) more than 26,000 people in 39 locations, and engaged 2,861 company volunteers, who dedicated approximately 16,719 hours to various activities. The initiatives included *Aprender para Quê* ("Learning for What"), the *Amigos da Vida* ("Friends of Life") campaign (blood donation) and *Mostre Seu Amor Pelo Rio Tocantins* ("Show Your Love for the Tocantins River").

The work is coordinated through the Volunteer Program, created more than 20 years ago to foster the exercise of citizenship, encourage and recognize the social role

college students for the workplace. Participants had access to e-books and specific training materials on technical and behavioral skills, financial education, personal marketing and networking, among other topics.

The 24 selected participants work in the six areas where Suzano operates: Aracruz, Belém, Imperatriz, Mucuri, the São Paulo office and Três Lagoas. In addition to virtual meetings between participants and their assigned mentors, the program included webinars and opportunities to share experiences.

of employees and support education, sustainability, diversity, equity and inclusion.

**Formare** – In 2022, the *Formare* program, a partnership between our Volunteer Program and the Iochpe Foundation, was active in five units (Aracruz, Imperatriz, Mucuri, Suzano and Três Lagoas) and certified 98 students as production process operators. The program offers professional education to young people in situations of vulnerability, preparing them for the workforce and hiring some of the participants. Classes are taught by company volunteers. In 2022, we hired 57% of the participants (26 as employees, six as service providers, 11 as interns and 13 as apprentices).

Photo: Fernando Cavalcanti



Employee at the Mucuri Unit



Formare  
students at the  
Imperatriz Unit



Photo: Marcio Schimming



# LEADERSHIP, DEVELOPMENT AND TRAINING

We believe that training our teams leads to more efficient management and prepares leaders for business challenges. We offer several developmental opportunities that include acceleration courses for employees taking on new challenges and mentoring programs for those assuming leadership positions for the first time.

Known as *ELOS*, the leadership development program is divided into different organizational levels. It includes development sessions, coaching, training (online and in person), interactions with more experienced leaders, discussion forums and other activities.

In 2022, a total of 745,677 hours were devoted to training and development activities — an average of 39.96 hours per employee.

Our talent management organization fosters engagement and promote retention and professional growth. Among other results 49.1% of positions in the company were filled through internal promotions, which confirms the importance of this approach.

One of our initiatives is *<DIV>ersidade Tech*, which prepares and develops women, Black employees and people with disabilities working in Data Analytics. A five-month course was offered in partnership with Let's Code, a recognized programming school. With 250 places, the online classes were complemented by activities in Data Science, Operations Research and Advanced Statistics taught by our data scientists.

In another area, we launched the Digital TRANSformation Program, which aims to increase the participation of the LGBTQIAP+ population in the workforce. The project is a partnership with Alura, the largest online technology school in Brazil. In this first stage, 150 participants were trained over three months to become systems developers.

## RECRUITMENT AND SELECTION

All our recruitment processes require the participation of at least 50% women and Black candidates. As a result, our Trainee Program cohort of 2022 increased the participation of women to 64% (53% in 2021). Aligned with our commitment to being increasingly diverse and inclusive, 2023 Trainee Program, named *Vem Ser a Cara do Futuro* ("Be the Face of the Future"), welcomed applicants from all academic disciplines and institutions and English is no longer an evaluation criterion. The selection process for 31 positions available throughout Brazil was carried out 100% online.

**64%**

of women in the Trainee Program

**31**

positions available

**100%**

of the online selection



# HEALTH, SAFETY AND WELL-BEING

Safety is a non-negotiable value for us. Our 2022 indicators show the maturity of our safety culture, with all time positive results regarding both our lost-time incident frequency rate (from 0.51 in 2021 to 0.37) and the severity rate (from 31.0 to 28.0), exceeding our targets. Another achievement comes from the Cerrado Project: between the months of August 2022 to February 2023, we reached yet another record in safety performance by reaching 10 million hours without accidents with lost time.

In order to improve the 2021 results, we had a strong commitment to proactive tools. They are tools applied in the routine of employees,

aiming at a commitment to preventing incidents and cultural transformation of the entire company. With the implementation of a digital platform, we contribute to the identification and mapping of risks related to people, processes, infrastructure, management of work standards, effectiveness in correcting deviations and critical analysis of performance.

The platform allows managers to more easily identify potential causes of occurrences, thus allowing them to take actions to eliminate and mitigate deviations more assertively. With this platform, we had good adherence by Operational Managers, Technicians

and Specialists, increasing the number of registrations in the tools to 429 thousand and 500 thousand hours of training.

The platform is also used to monitor the work of service providers — we have identified that our partners comply with 91.48% of our standards. The tools also provide information to the Safety Management Indicator (SMI), which evaluates each employee based on quantitative and qualitative parameters for the continuous improvement of processes and the maturation of the safety culture. These indicators improved in 2021 and continued to do so in 2022.

## WORK ACCIDENTS<sup>1,2,3,4</sup>

GRI 403-9 | SDG 8.8

	2020		2021		2022	
	Result	Benchmark	Result	Benchmark	Result	Benchmark
Severity rate	33.00	24.00	31.00	30.00	28.00	30.00
Lost-Time Injury Frequency Rate (LTIFR)	0.52	0.44	0.51	0.47	0.37	0.42
Total Recordable Injury Frequency Rate (TRIFR)	1.80	1.96	1.92	1.62	1.61	1.73

<sup>1</sup> Includes company employees and contractors.  
<sup>2</sup> Does not consider activities of Engineering of Large Works.  
<sup>3</sup> Does not consider commuting accidents.  
<sup>4</sup> Considers only absences that occurred during the year 2022.

## DIGITALIZED TOOLS

**Behavioral approach** – A checklist of tasks, in a variety of areas, focused on strengthening the culture of safe behavior.

**Safety in the areas** – Weekly meetings, in all units, for leaders and their teams to discuss previously selected issues.

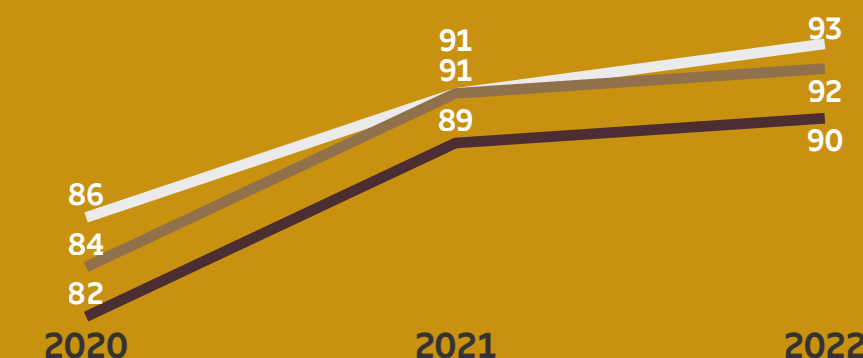
**Positive activity observation** – Checking the use of personal protective equipment, among other tasks.

**DNA** – Record of any behavioral deviation. It has this name precisely to show that safety is our number one value — it is part of our DNA.

**Safety Tour** – Performance of several types of inspection.

## SAFETY INDICATORS

- SMI (Safety Management Indicator)
- SQI (Safety Quality Indicator)
- SI (Safety Indicator - average of SMI and SQI)





The industrial and forestry units have Cultural Transformation Plans to guide the maturation of the safety culture. In addition to campaigns and events, and technical and behavioral training, we host an annual Internal Work Accident Prevention Week (SIPAT), which, in 2022, was titled “Everyone Playing for Safety”, in reference to the World Soccer Cup.

In units, safety committees and subcommittees work together with the Internal Commission for Accident Prevention (CIPA). The Safety, Health and Quality of Life Management System covers 100% of company and contracted employees. It is based on ISO 45001 and ISO 9000 certifications, Regulatory Labor Standards, the PDCA cycle approach (Plan – Do – Check – Act or Adjust), and national and international best practices. |GRI 403-1| SDG 8.8

HIGH-POTENTIAL INCIDENTS<sup>1</sup>

|GRI 403-9| SDG 3.6, 3.9, 8.8, 16.1



<sup>1</sup> Unwanted and unplanned events with a high probability of causing a personal incident with the potential of serious and/or permanent injury, or even fatality.

Process Safety

In 2022, we also created a Process Safety area. While the occupational safety team manages incidents involving employees, the new area deals with other events such as fires, explosions or leaks, and others, which can have serious or lasting consequences. We trained the teams at all units and the next steps include a survey of the main indicators to put the new process safety system into operation.

Health and Quality of Life

Doctors, nurses, psychologists, nutritionists, specialists in ergonomics, and quality of life analysts help support the health and well-being of employees and their families. Our largest units are equipped with medical outpatient clinics that are open 24 hours a day, seven days a week.

In 2022, we also maintained several initiatives related to the COVID-19 pandemic. Although the total number of infections and hospitalizations continues to decline, our commitment is to provide care and support prevention among all teams.

SUZANO FAZ BEM

Our main quality of life program is *Suzano Faz Bem* (“It’s good for you”), which is available through an informative app that makes it easier for employees to identify and learn about opportunities and benefits, as well as to access content and general guidelines. The program includes:

- 24 hours a day, seven days a week assistance (phycological, legal, social, physical, financial, nutritional and pet support), via toll free number.
- Online counseling platform including different subspecialties (therapy, career development, family counseling, etc.)
- Personalized and group prenatal follow-up.
- Lactation rooms in units with a high number of female employees.



Photo: Marcio Schimming

Employee at the Imperatriz Unit



# SHARED VALUE

[GRI 3-3\_203\_413] – MATERIAL TOPIC: LAND DEVELOPMENT

Our social strategy supports different approaches to local development. Present in more than 200 Brazilian municipalities, where 3.3 million people live in poverty, we believe we play a crucial role in building a more equitable world.

Although we offer job opportunities and foster local development, our operations can also have a negative impact on neighboring communities, especially with regard to dust, road damage caused by wood transportation and noise caused by trucks and harvesters.

Considering that, our strategy is based on three lines of action:

- 1. Relationship with communities:** Based on organized dialogue with the communities where we operate, mapping out opportunities to boost regional development.
- 2. Poverty reduction:** Investments in social programs and projects that have a direct impact on poverty, which support, for instance, initiatives of entrepreneurship, sustainable harvesting, recycling and professional training.
- 3. Support to education:** The Suzano Education Program impacts the lives of approximately 205,000 public school students by training educators, supporting educational policies and acting in different spheres linked to education (such as health and social assistance).

Two of these lines of action (poverty and education) are part of our long-term commitments as detailed below. In 2022, our initiatives benefited 276,000 people and included activities in the eight Brazilian states where we operate: Bahia, Espírito Santo, Maranhão, Mato Grosso do Sul, Minas Gerais, Pará, São Paulo and Tocantins.

In 2022, we invested R\$52 million in organized social initiatives (less than in the previous year, reflecting the amount allocated to COVID-19 activities in 2021). During the year, we defined a new strategy to engage institutional partners that considers technical and reputational aspects to further enhance the company's performance.

## Structured Dialogue [GRI 413-1]

The management of social investment is guided by the Social and Environmental Investment and Donations Corporate Policy, as well as by procedures for the Management of Social Demands and Management of Social and Environmental Investment Projects, and by the Relationship Management Manual.

Community consultation is at the heart of our community relations and social investment model. We assess the needs and demands of local communities through engagement processes that are based on structured dialogue to share information and define short- and long-term goals, activities and responsibilities.

Our 12 operating units (including the plants and farms that supply these units) maintain active relationships and ongoing communications with neighboring communities. One of the most important tools is the Operational Dialogue, a direct communication channel with neighboring communities that includes meetings and/or individual interactions to inform about activities planned for the region and discuss possible risks and negative impacts, as well as ways to mitigate them. In addition, to ensuring advanced and constant communication with communities about our operations, we engage with other stakeholders in our areas.

In 2022:

**276,000** people benefited from social programs

**18,341** people lifted out of poverty

**R\$52 million** invested in social initiatives



## REDUCE POVERTY

We advanced our efforts to lift 200,000 people out of poverty in the areas where we operate by 2030 by incorporating the Theory of Change, a methodology that enables the development of paths to achieve this social transformation in the short (1-2 years), medium (5 years) and long (10 years) term. More than lifting people out of poverty, this is an effort that aims to have a systemic and continuous impact in these regions—poverty is not only a matter of income, but rather a multidimensional issue that involves education, access to healthcare, housing and quality of life.

In 2022, especially as a result of initiatives in the Cerrado Project (see [page 13](#)), we lifted 18,341 people out of poverty — totaling 29,633 people since 2020, which represents 14.8% of our target. We use the World Bank’s definition of poverty, ratified by the IBGE (Brazilian Institute of Geography and Statistics), of income per capita below R\$486 per month (2022).

The activities increasingly connect all areas of the company since, in addition to leveraging social initiatives and programs, they address issues from a business perspective (how to train people in the region, how to engage with NGOs and other local players, how to hire labor, etc.). Currently, we have seven programs aimed at reducing poverty in Brazil.



Agriculture initiative in the Bela Vista Community, in Mucuri

Foto: Fernando Cavalcanti

“

For years we have sought partnerships for projects in our communities that could generate income, leveraging our potential in agriculture and babassu harvesting. Being a woman and community leader is a significant daily challenge. We rely on this project as a path for transformation in our region.”

**Maria Edileuza de Sousa Pereira**, president of the Association of Family Farmers of the Estrela da Serra Settlement, in João Lisboa, Maranhão

**Sustainable Harvesting** – Support for the sustainable harvesting of non-timber forest products, such as fruits and seeds. In December, we formalized a partnership with the Brazilian Biodiversity Fund (FUNBIO) to expand this initiative. The work will be coordinated by the NGO Agência de Desenvolvimento Extensão Amazônia and financed through an investment of more than R\$4 million (through December 2024) to support activities in the Legal Amazon and in its transition zone with the Cerrado.

**3,039** people benefited

**1,380** tons produced in 2022

**R\$10,000** in revenue

**Inclusive Recycling** – Strengthening of the performance of waste collector associations and inclusion of these workers (both working as part of a cooperative or independently) in waste management processes for recovery and recycling, demonstrating Suzano’s contribution to the development of a circular economy. In Aracruz, the cooperative that operates inside our plant recorded

**91%** increase in income in 2 years

“

I had graduated from a public school in Ribas do Rio Pardo and didn’t know what professional path to choose. I’ve always liked chemistry and biology, so I grabbed this opportunity and worked really hard. I’m fascinated by this area! I can’t wait to start working on it and, in the future, get a degree in Chemical Engineering.”

**Aline Alves Lima**, participant of the first Technical Training Program for Industrial Operations, in Ribas do Rio Pardo





Photo: Fernando Cavalcanti



Beehives Project at the Beekeepers Association of Botucatu

“

Thanks to the *Colmeias* Program partnership, we were able to organize ourselves, work together and receive technical support. These were the main achievements enabled by the program. We want to achieve sustainable growth, through which beekeepers can produce increasingly more and with higher quality. We pursue the development and strengthening of small producers, as opposed to disorderly growth in the region.”

**Noel Lima de Araújo**, president of the East Coast Regional Beekeepers Association, in Três Lagoas

### Woman and Young Adult

**Entrepreneurship** – Support for women and young adults to open and manage their own businesses in different Brazilian regions.

**Supply Networks** – Creation of partnerships between rural producers, associations, traders and customers to strengthen local food security, agriculture and cattle farming.

**83** initiatives

**2,500** participants

**Colmeias (“Beehive”) Project** – Support for the sustainable production of honey in our farm areas in the states of Bahia, Espírito Santo, Maranhão, Mato Grosso do Sul, São Paulo and, since November, Tocantins. In partnership with the Banco do Brasil Foundation, we have invested more than R\$1.2 million to provide technical assistance and materials and finance the construction of a honey processing unit. In two years, the initiative is expected to almost double the average income per family from R\$870 to R\$1,500 per month.

**800** people benefited

**60% a 70%**

previstos de aumento na renda média em dois anos

**Service Network** – Support for the creation of a network of community partners and service providers.

Photo: Fernando Cavalcanti



Sustainability Space at the Suzano Unit with products from supported social projects

“

The support from Suzano helps strengthen communities that have important traditional knowledge about the use of forest resources in Maranhão, such as babassu coconut breakers. Female leadership is one of the key elements of this activity, which is vital to many of the beneficiary families.”

**Rosa Lemos de Sá**, general secretary of FUNBIO

**Access to Employment** – Training, professionalization and facilitation of connections to ensure that people have access to formal jobs and are qualified to work in specific fields. Through partnerships with organizations such as the National Service of Industrial Learning (SENAI), residents of different regions take classes and are prepared to work at Suzano or for local service providers and other industrial and service areas.

**238** people trained in 2022

**Suzano Value Chain** – Support for hiring people for positions within Suzano or its suppliers. One of the initiatives involve the São Domingos Cooperative, which is formed by the Córrego São Domingos quilombola community, one of the oldest of its kind in the state of Espírito Santo.

**70** quilombola families benefited





## SUPPORT FOR EDUCATION

According to a report by the Organization for Economic Cooperation and Development (OECD), people who have a college degree in Brazil earn 2.5 times more than those who do not — according to SENAI, people with a technical degree have 18% higher income than those with no formal training. Poverty and lack of education are connected in a vicious circle. Low-income families have a harder time getting (and keeping) their children in school. Therefore, creating the necessary conditions for them to acquire an education, instead of joining the workforce at a young age, is part of our strategy to reach the goal of increasing the Basic Education Development Index (IDEB) in all priority towns by 40%, by 2030.

In 2022, the Suzano Education Program (PSE) benefited approximately 200,000 students in 888 public schools. More than 3,000 people, including education secretaries, technical teams, school administrator and teachers, participated in training offered by the program to advance public education policies and improve educational practices in the classroom.

The foundations of the PSE are the Education Development Arrangements (ADE), which are based on intermunicipal cooperation to strengthen leaders of neighboring towns with similar social characteristics. One of the highlights in 2022 was the signing of a term of cooperation that formally established the

São Paulo ADE (which includes the towns of Jacareí, Paraibuna, Pindamonhangaba, Salesópolis and Santa Branca and was renamed ADE 5+SP) as a public management instrument to ensure the right to high quality education. In addition, 100% of the ADEs participating in the PSE developed long-term strategic plans to improve education.

## RELATIONSHIP WITH THE COMMUNITIES

Our strategy to develop positive relationships with neighboring communities is organized using a local priority matrix that identifies and classifies all communities surrounding our areas according to four criteria: social situation, extent and impact of Suzano's local operations, socioeconomic vulnerability and territorial relevance.

### Traditional and Indigenous Communities

**|GRI 411-1| SDG 2.3 | SASB RR-FM-210a.1**

Due to their high territorial relevance, traditional communities (indigenous, quilombola and fishing communities) are automatically characterized as high priority. As such, they are designated to receive continuous social investment with a focus on strengthening grassroots organizations and leveraging local strengths, increasing

food security and income generation, and promoting their sociocultural heritage.

We do not own or manage areas located in territories legally demarcated as indigenous lands. In addition to our Corporate Human Rights Policy, our Relationship with Indigenous Peoples and Traditional Communities Policy establishes guidelines for social and environmental investment in these communities. These policies ensure alignment with best practices in ethnodevelopment, showing respect for, and supporting, traditional ways of life and sustainable land management.

Our relationship with quilombola communities is more intense in the states of Bahia and Espírito Santo. Of the 38 remaining quilombo locations identified by the company and registered in our Community Prioritization Matrix, 30 are concentrated in the north of Espírito Santo.

### Repossession

Our relationship with communities may also include disagreements related to land ownership, especially in areas where there is significant social vulnerability and no organized public policies for land reform.

Recognizing this reality, we have a multidisciplinary group that includes the areas of Communication, Sustainability, Corporate Relations, Legal, Forestry,

Social Development and others to ensure that all situations involving land disputes are handled with transparency and the highest level of respect possible for all parties involved.

Our Population Resettlement Manual establishes guidelines for managing the displacement of people, families and communities resulting from our activities, as well as from irregular occupations.

Considering that the process of involuntary resettlement is complex and requires careful attention to the parties involved, we rely on the support of a specialized company to ensure the implementation of best practices in “human repossession”, thus reducing the impact of these situations. Analyses and assessments of the profile of the occupants are performed prior to the implementation of measures that are based on basic human rights such as decent housing, access to education, health and a balanced environment.

We strive to provide opportunities for vulnerable families residing in occupied areas, including access to social assistance and professional development activities, and assurance of no forced evictions to effectively improve their quality of life.



7.

GOVERNANCE,  
COMPLIANCE AND

ETHICS

Employee at the  
Imperatriz Unit



Photo: Márcio Schimming





# CORPORATE GOVERNANCE

[GRI 2-9] SDG 5.5, 16.7

Advances in our corporate governance structure reflect the evolution of our business and are crucial to fulfill our goal of being a global benchmark in sustainability. Aligned with our commitment to diversity, equity and inclusion, in 2022 our Board of Directors included three women, representing 33.3% of the nine seats of the body that creates and directs our business strategy. In consequence, we received the Women on Board (WOB) certification, which recognizes and values companies that promote diversity in the corporate environment through the participation of women on their Boards of Directors or advisory councils.

Our shares are listed on Novo Mercado, a listing segment of B3 – Brazil Stock Exchange and Over-the-Counter Market that includes companies with the highest level of corporate governance. We also have a Level II program on the New York Stock Exchange (NYSE).

Our Board of Directors is supported by the Statutory Board, the Management Committee and six advisory committees: Statutory Audit; Strategy and Innovation; Sustainability; Management and Finance; Appointment and Compensation; and People Management. All committee members are elected by the Board and include external participants to bring diverse perspectives to the discussions.

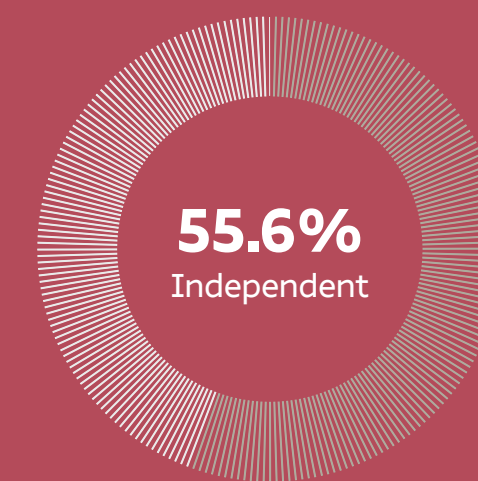
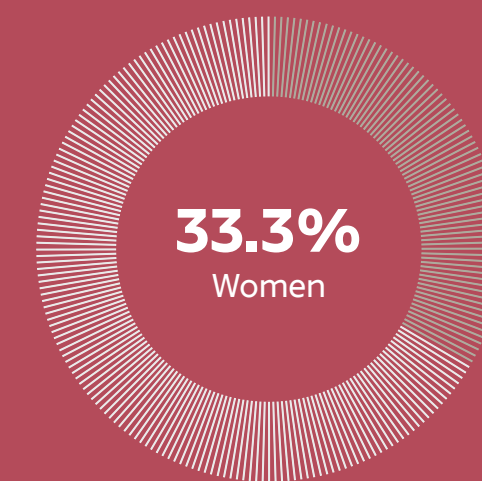
The following Board members were elected at a meeting held at the end of April: David Feffer (chairman), Ana Paula Pessoa, Daniel Feffer, Gabriela Feffer Moll, Maria Priscila Rodini, Nildemar Secches, Paulo Rogerio Caffarelli, Paulo Sergio Kakinoff and Rodrigo Calvo Galindo.

The [Investor Relations](#) section in our website details the composition of Suzano's governance bodies and their respective functions. Information about the process of compensation and performance review of the Board of Directors, and other indicators, is available in the [Sustainability Center](#).

## OUR BOARD OF DIRECTORS

[GRI 2-11, 405-1] SDG 5.1, 5.5, 8.5, 16.6

### 9 members



**33.3%** are 30-50 years old and **67.7%** are over 50 years old.

**2-year** term, through 2024.

**7.8 years** average tenure on the Board.

**1 risk expert.**

**Chairman of the Board** does not have an executive function.

**None of the directors** are company executives.

## THINKING ABOUT THE FUTURE

The Board of Directors frequently assesses the impacts that social and environmental issues may have on business and stakeholders. The Board is supported by the Management Committee and the Sustainability Committee, which help directors think strategically about the future. This includes discussions on global and pressing matters and on how the company can help transform certain situations, such as climate change and poverty reduction.

The committee also monitors the evolution of the [Commitments to Renewing Life](#), by asking questions about the ambitions related to the 15 targets, raising the level of discussion and also simulating potential discussions with strategic stakeholders regarding these commitments. [GRI 2-17]





# RISK MANAGEMENT

[GRI 2-13]

High levels of governance require careful risk management. Our risk management approach includes three complementary lines of action, which are supported by different teams committed to mitigating the likelihood and potential impact of risks in the different areas of the business.

We have an Integrated Risk Management Policy, which is implemented by the Risk Management team together with other business areas. The purpose of the policy is to identify, analyze, prioritize, address, monitor and report the main risks associated with our business, aligned with the corporate strategy. The Risk Management team implements the Enterprise Risk Management (ERM) process to identify and prioritize the company's main risks, based on workshops and interviews with key executives.

Identified risks are consolidated in a matrix and the priority risks are presented to all directors, CEO and board members. At least one action plan is developed for each of the risks.

The monitoring and measurement of priority risk action plans are carried out through critical analyses. The status of risk mitigation plans is reported to the Management Committee, the Statutory Audit Committee and the Board of Directors. Risk management is an ongoing process, and risk levels within the matrix may change, depending on changes that may occur in internal and external conditions related to the business. Throughout 2022, the Risk Management team updated the risk matrix based on the work of more than 40 commissions, with more than 210 participants, including representatives from our international offices.

The risk management process is unfolded to all units by the Risks and Business Continuity Regional Commissions. These commissions are responsible for mapping, analyzing, addressing and monitoring the risks of each unit. They are made up of multidisciplinary strategic members from each location that are responsible for identifying the risks and creating action plans and business continuity plans to prepare the company for the potential materialization of risks that can lead to crises.

Additionally, within the Risk Management organizational structure, we have Technical Risk Forums that are responsible for mapping, analyzing, assessing, addressing and monitoring corporate risks, in addition to monitoring information pertaining to these risks that are raised by the Regional Commissions. The Technical Risk Forums are made up of functional directors, executive managers and their support teams. The Integrated Risk Management process undergoes annual certification and customer audits.

In 2022, the crisis governance model was revised, with the goal of improving the process, adding crisis simulations and training for the risk commissions of the units. Crisis management training for directors and the Board of Directors is planned for 2023.

Click [here](#) to access the Integrated Risk Management Policy, which details the entire process and responsibilities.

## Information Security

**In 2022, we carried out more than 100 training sessions that were primarily designed to help employees recognize the importance of reducing exposure to information security and data privacy risks, as well as to prepare them to prevent and protect our assets, both in our industrial units and offices.**

Our [Public Policy on Information Security](#), published in 2022, addresses these issues and establishes responsibility for preventing actual and attempted cyberattacks that may result in financial impacts, damage to image and reputation, exposure of personal data, interruption of operations, and more.



# ETHICS AND COMPLIANCE

[GRI 2-23, 2-24]

We believe that achieving success ethically and transparently is the only way to build a solid path of achievement. To guide our actions and establish compliance guidelines, we rely on our Code of Conduct, Anti-Corruption Policy, Ombudsman Policy, Disciplinary Measures Policy and Rules for the Conduct Committee.

The Code of Conduct includes the ethical principles that guide our everyday activities, focusing on the quality of relationships, products and services.

The Anti-Corruption Policy establishes guidelines and criteria to prevent deviations, fraud, irregularities and harmful acts committed both against governments and against private companies.

**Code of Conduct training** – New employees take training in our Code of Conduct upon joining the company, and every employee takes refresher training annually, which includes our Anti-Corruption Policy. They are required to confirm their intention to comply with our Code of Conduct as a condition of continued employment.

## 84.7%

employees completed in 2022 our mandatory Code of Conduct training, which is available in four languages.

Training was also carried out by

## 100%

of the service providers.

**Integrity Month** – Beyond annual training, we maintain communications and awareness campaigns throughout the year to reinforce our culture of ethics and compliance. Part of this is our annual internal integrity campaign which, in 2022, was expanded from one week to a full Integrity Month. During the year, different areas of the company participated in approximately 10 training sessions on specific compliance topics.

**Compliance** – Our Compliance Program is structured in three pillars: prevention, detection and response. In 2022, our compliance focus was on identified risks and implementation of mitigation measures. Additionally, we continued to address new regulatory requirements and implement procedures to ensure compliance. Activities relating to compliance are reported to our Internal Audit department, which shares pertinent information with the Statutory Audit Committee and the Board of Directors.

Photo: Márcio Schimming



Employees at the  
Imperatriz Unit



## HUMAN RIGHTS

**|GRI 3-3| – MATERIAL TOPIC: HUMAN RIGHTS**  
**|GRI 2-23, 2-25| SASB RR-FM-210a.2 | SDG 16.3**

We have absolute respect for human rights and require this same attitude from employees and partners. In 2022, we revised our [Human Rights Policy](#) to improve risk and impact management, confirming our intention to be a leader in the transformation of the value chain and society.

Our Corporate Matrix of Human Rights Risks allows us to visualize these issues and identify where it is necessary to concentrate efforts to prevent and mitigate them. The most critical rights holders we identified were our company and contracted employees; workers in the value chain; local communities; and indigenous and traditional peoples and communities. Based on this definition, we created action plans in line with the United Nations Guiding Principles on Business and Human Rights.

As signatories of the Global Compact, we are committed to supporting and respecting the protection of human rights and ensuring non-participation in violations of these rights. We are also part of the Business and LGBTI+ Rights Forum, Business Initiative for Racial Equality, Equity is a Priority, *Mulher 360* Movement and *Mulher Florestal* Network. During the year, we participated in the Global Compact Network Brazil’s Human Rights Action Platform, which promotes discussions on the role of companies in ensuring the protection of human rights in their operations, value chain and in the communities where they operate.



### OMBUDSMAN CHANNEL IN 2022

**1,344** reports filed  
**55%** were justified<sup>1</sup>  
**28%** were identified<sup>2</sup>  
**662** justified complaints were resolved with corrective and/or disciplinary action

#### Of the complaints received:

**31%** related to inappropriate behavior by managers or colleagues

<sup>1</sup> Manifestations pending on the deadline of December 31, 2022 are not considered.  
<sup>2</sup> All comments received in 2022 are considered. Identified manifestations are those in which the whistleblower identifies himself.

## Ombudsman Channel

We encourage employees and any other individual to use our confidential Ombudsman Channel to report concerns relating to ethical or compliant conduct by Suzano or any of our supply chain partners, file complaints or simply ask questions. The Channel is maintained 24/7 via an external and independent provider. The complaints can be accompanied by one of the protocol number issued when the manifestation is sent. The complaints are investigated and corrective and/or disciplinary measures are implemented as needed.

The Ombudsman Channel also assists anyone seeking advice on how to implement the organization’s policies and practices, as

well as other mechanisms to communicate with stakeholders, to ensure responsible business conduct. This includes the Investor Relations area, which is in constant contact with shareholders; our Supplier Portal, which serves our supplier portfolio; and the Social Development area, which interacts with communities, neighbors and partners in the vicinity of our facilities. **|GRI 2-26| SDG 16.3**

During the year, we did not incur any significant fines or sanctions for non-compliance with socioeconomic laws and regulations. In environmental aspects, R\$ 110.4 thousand were paid in fines and three non-monetary sanctions were received for environmental violations.

### OMBUDSMAN CHANNEL REPORTS<sup>1</sup>

	2020	2021	2022
Total number of reports/complaints filed	912	1,079	1,344
Total number of reports/complaints addressed	912	1,079	1,344
Number of reports/complaints resolved	870	1,039	1,208
Number of reports/complaints pending	42	40	136
Number of reports/complaints filed before the reporting period and resolved during the year	40	42	39

<sup>1</sup> Data from Projeto Cerrado are not considered.



# SUSTAINABLE SUPPLY CHAIN

[GRI 3-3] – MATERIAL TOPIC: SUPPLIER MANAGEMENT [GRI 2-6]

We seek to drive sustainable practices throughout our supply chain, supporting suppliers in their compliance with ethical standards and engagement with environmental action. Since 2021, our Responsible Supplier Management (RSM) Program has provided a framework for boosting sustainability management while supporting the incorporation of ESG criteria into procurement decisions.

RSM was reflected in several projects and initiatives that seek to foster lasting and positive relationships with suppliers to generate shared value. In the forestry industry in particular, traceability of products from certified forests is critical to ensure sustainability, and we rely on strong relationships with our suppliers to ensure our supply sources are carefully monitored and recorded.

In 2022, 54% of our suppliers were registered considering environmental criteria and 100% considering social criteria. During the year, we automated and analyzed data to enhance our risk management processes, streamline audits in the supply chain and

support decisions to ensure more responsible procurement practices. We achieved our goal of performing a comprehensive audit including the suppliers with high sustainability risk that were prioritized for the first cycle of the initiative. We monitor 100% of suppliers with sustainability risks through the Reprisk platform.

[GRI 308-1, 414-1] SDG 5.2, 8.8, 16.1

In 2022, we hired 13,600 suppliers (out of approximately 29,700 homologated suppliers). Our purchasing spend totaled R\$39.5 billion.

**29,700**  
suppliers registered

**100%**  
hired considering social criteria

**54%**  
hired considering environmental criteria

“

Komatsu Forest believes that people, businesses and the planet must prosper together. We work to improve the quality of life, to develop people and to carry out activities in support of society. That's why we share Suzano's values. We contribute to sustainability through innovative products, services and solutions.”

**Carlos Roberto Borba Rosseto,**  
General Manager of Komatsu



Photo: Fernando Cavalcanti



## ETHICAL PROCUREMENT

Our supply chain is diversified and made up of suppliers that are divided into macro categories that include operations, services, logistics, marketing and sales activities, as well as support activities such as infrastructure and technological development. In 2022, we transacted with approximately 13,600 suppliers out of a total of 29,700 approved suppliers in our database. Our payments to suppliers totaled approximately R\$39 billion.

At Suzano, our supply chain is closely managed by a team dedicated to monitoring, developing and improving the chain. Our approval and homologation process covers 100% of suppliers and includes mandatory documentation for different contracting segments.

We incorporate sustainability requirements into this process, evaluating mechanisms and strategies related to social management and performance, governance, quality management system, due diligence integrity and the environment. We foster the local economy and entrepreneurship (micro and small companies) and, accordingly, prioritize local purchases. We had a total of R\$ 13.4 billion in transactions with local suppliers in the states of Bahia, Espírito Santo, Maranhão and Mato Grosso do Sul. These suppliers are headquartered or have branches in areas where we operate and

represented 34% of our global procurement spend in 2022. **|GRI 204-1| SDG 8.3**

We have three different purchasing processes: centralized purchases, which are under the responsibility of the Procurement team; decentralized purchases, which are managed by different areas; and the purchase of wood and land. The Inbound Procurement and Logistics Area is responsible for centralized purchases, macro procurement processes, planning, sales of non-operational items, warehouses and gas stations, and activities related to supply intelligence and governance.

For wood suppliers, sustainability risks are defined considering five FSC® controlled wood categories: illegally harvested wood, wood harvested in violation of traditional and civil rights, wood harvested from forests in which high conservation values are threatened by management activities, wood harvested in forests being converted to plantations or non-forest uses, and wood harvested from forests in which genetically modified trees are planted.

We strive to be a leader in the transformation of the value chain and society, working to become increasingly closer to suppliers — key allies in the day-to-day business. According to a study by the World Resources Institute (WRI), based on an initial analysis

“

**I was very pleased to participate in the Semear project. Everything I learned in the classes further strengthened the proper management of our company's financial resources.”**

**Celma Oliveira**, owner of the company Esperança Transporte Serviços de Terraplenagem

## SUPPORT FOR ENTREPRENEURSHIP

Since 2020, we have maintained the *Semear* (“Sowing”) Program to foster entrepreneurship as a way to empower small and micro-entrepreneurs from towns close to our operational units in Mato Grosso do Sul. In 2022, 150 people participated in the program, the highest enrolment since the launch of Semear, which is implemented by SEBRAE. In these three years, Semear has benefited approximately 350 participants.





of more than 1,000 corporate supply chain goals, fewer than 10% aim to empower small and medium-sized companies. In this context, the company partners with the Brazilian Micro and Small Business Support Service (SEBRAE) to provide training that considers the specific needs in each location.

The Sustainable Procurement Policy and the Supplier Code of Conduct address issues such as integrity in business relations, dignified labor relations and management systems, in addition to issues such as environmental protection, human rights (maximum work hours and fulfillment of collective bargaining agreements and/or conventions) and social development.

We also have processes to manage risks associated with suppliers, which include monitoring the most critical ones according to the guidelines of the Anti-Corruption Policy, the Disciplinary Measures Policy and Suzano’s general supplier registry. There is also a Wood Supply Policy that guides the purchase of raw material for the pulp mills. The Supplier Relationship Portal compiles our major initiatives our major initiatives and includes information for active suppliers and potential future partners.

The Supplier Performance Index (SPI) that evaluates critical suppliers was revised in 2022 to incorporate new questions, mainly regarding social, environmental and safety requirements, with an average approval rate of 97%. We created action plans for suppliers that are below the desired index.

## SUPPLIER ENGAGEMENT

Suzano’s Climate Change in the Value Chain Program, launched in 2021, aims to encourage our suppliers to reduce their GHG emissions, while improving our climate strategy. In 2022, 91% of the suppliers committed to reporting their climate change data to CDP. Our results exceed the global average of supplier engagement among CDP’s global participants.

To reinforce our commitment to climate action through the supply chain, we applied climate criteria to supplier selection — 77% of the new suppliers were registered

and approved with consideration of their climate disclosures.

In addition, we have made an important change in our procurement process to fully integrate social and environmental analysis in the contracting phase, in addition to the economic, financial and technical assessments. Today, ESG performance represents 25% of the procurement decision weighting in significant Capex investments. In 2024, we plan to extend this approach to all procurement.

### NUMBER OF CRITICAL SUPPLIERS<sup>1</sup>

	2020	2021	2022
Total number of critical suppliers (except wood suppliers)	458	410	696
Total number of critical suppliers (wood suppliers)	NA	853	1,218
Total number of critical suppliers (tier 1 and non-tier 1) evaluated <sup>2</sup> (except wood suppliers)	NA	375	696
Total number of critical suppliers (tier 1 and non-tier 1) evaluated (wood suppliers)	NA	853	1,218
Total number of suppliers with high sustainability risk evaluated <sup>2</sup> (except wood suppliers)	NA	702	533
Total number of suppliers with high sustainability risk evaluated <sup>2</sup> (wood suppliers)	NA	853	1,218

<sup>1</sup> Evaluated in the Supplier Performance Index, with high sustainability risk suppliers being audited. All undergo internal auditing and third-party sampling.

<sup>2</sup> Every wood supplier is considered critical.

## MORE COMPETITIVE CREDIT FOR SUPPLIERS

In just under two year of operation, Suzano Fortalece helped generate a landmark of R\$2.4 billion made available to suppliers. Approximately 600 partners benefited from the opportunity of accessing more competitive credit conditions. We facilitate negotiations between banks and these small companies, conducted through a digital platform developed by Monkey, the largest financial solutions marketplace in Latin America. The system works like a reverse auction: whoever offers the lowest interest rate wins. According to Monkey, the financing fees are up to 75% lower than traditional charges by financial institutions. The initiative aims to strengthen the supply chain and demonstrate our efforts to share value with our stakeholders.



8.

# ANNEXES



Photo: Fernando Cavalcanti





# LIMITED ASSURANCE REPORT

(A free translation of the original in Portuguese)

## Independent auditor's limited assurance report on the non-financial information included in the Sustainability Report 2022 of Suzano S.A.

To the Board of Directors and Stockholders  
Suzano S.A.  
Salvador - BA

### Introduction

We have been engaged by Suzano S.A. ("Company" or "Suzano") to present our limited assurance report on the non-financial information included in the Sustainability Report 2022 - Complementary Information of Suzano and in the attachment Supplementary GRI Disclosures (hereinafter collectively referred to as "Sustainability Report 2022") of Suzano for the year ended December 31, 2022.

Our limited assurance does not cover prior-period information, or any other information disclosed together with the Sustainability Report 2022, including any images, audio files or videos.

### Responsibilities of Suzano's management

The management of Suzano is responsible for:

- selecting or establishing adequate criteria for the preparation and presentation of the information included in the Sustainability Report 2022;

- preparing the information in accordance with the criteria and guidelines of the Global Reporting Initiative (GRI - Standards) and with the basis of preparation developed by the Company;
- designing, implementing and maintaining internal controls over the significant information used in the preparation of the Sustainability Report 2022, which is free from material misstatement, whether due to fraud or error.

### Independent auditor's responsibilities

Our responsibility is to express a conclusion on the non-financial information included in the Sustainability Report 2022, based on our limited assurance engagement carried out in accordance with the Technical Communication CTO 01, "Issue of an Assurance Report related to Sustainability and Social Responsibility", issued by the Federal Accounting Council (CFC), based on the Brazilian standard NBC TO 3000, "Assurance Engagements Other than Audit and Review", also issued by the CFC, which is equivalent to the international standard ISAE 3000, "Assurance engagements other than audits or reviews of historical financial information", issued by the International Auditing and Assurance Standards Board (IAASB). Those standards require we comply with ethical requirements, including independence requirements, and other responsibilities of these standards, including those regarding the application of the Brazilian Quality Control Standard (NBC PA 01) and, therefore, the maintenance of a comprehensive quality control system, including documented policies and procedures regarding the compliance with ethical requirements,

professional standards and relevant legal and regulatory requirements.

Moreover, the aforementioned standards require that the work be planned and performed to obtain limited assurance that the non-financial information included in the Sustainability Report 2022, taken as a whole, is free from material misstatement.

A limited assurance engagement conducted in accordance with the Brazilian standard NBC TO 3000 and ISAE 3000 mainly consists of making inquiries of management and other professionals of Suzano involved in the preparation of the information, as well as applying analytical procedures to obtain evidence that allows us to issue a limited assurance conclusion on the information, taken as a whole. A limited assurance engagement also requires the performance of additional procedures when the independent auditor becomes aware of matters that lead him to believe that the information disclosed in the Sustainability Report 2022 taken as a whole might present material misstatements.

The procedures selected are based on our understanding of the aspects related to the compilation, materiality, and presentation of the information included in the Sustainability Report 2022, other circumstances of the engagement and our analysis of the activities and processes associated with the material information disclosed in the Sustainability Report 2022 in which significant misstatements might exist. The procedures comprised, among others:



- (a) planning the work, taking into consideration the materiality and the volume of quantitative and qualitative information and the operating and internal control systems that were used to prepare the information included in the Sustainability Report 2022;
- (b) understanding the calculation methodology and the procedures adopted for the compilation of indicators through inquiries of the managers responsible for the preparation of the information;
- (c) applying analytical procedures to quantitative information and making inquiries regarding the qualitative information and its correlation with the indicators disclosed in the Sustainability Report 2022; and
- (d) when non-financial data relate to financial indicators, comparing these indicators with the financial statements and/or accounting records.

The limited assurance engagement also included the analysis of the compliance with the guidelines and criteria of the Global Reporting Initiative (GRI-Standards), the provisions established in the basis of preparation developed by the Company, applicable in the preparation of the information included in the Sustainability Report 2022.

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

## Scope and limitations

The procedures applied in a limited assurance engagement vary in nature and timing, and are less detailed than those applied in a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the level that would be obtained in a reasonable assurance engagement. If we had performed a reasonable assurance engagement, we might have identified other matters and possible misstatements in the information included in the Sustainability Report 2022. Therefore, we do not express an opinion on this information.

Non-financial data are subject to more inherent limitations than financial data, due to the nature and diversity of the methods used to determine, calculate and estimate these data. Qualitative interpretations of the relevance, materiality, and accuracy of the data are subject to individual assumptions and judgments. Furthermore, we did not consider in our engagement the data reported for prior periods, nor future projections and goals, including results of goals established by the Commitments to Renewing Life included in the Sustainability Report 2022.

The preparation and presentation of non-financial information and indicators followed the definitions of the basis of preparation developed by the Company and the guidelines of the Global Reporting Initiative (GRI-Standards) and, therefore, the information included in the Sustainability Report 2022 does not aim to provide assurance with regard to the compliance with social, economic, environmental or engineering laws and regulations. However, the aforementioned standards establish the presentation and disclosure of possible cases of non-compliance with such regulations when sanctions or significant fines are applied. Our assurance report should be read and understood in this context, inherent to the criteria selected and previously mentioned in this paragraph.

## Conclusion

Based on the procedures performed, described herein, and on the evidence obtained, no matter has come to our attention that causes us to believe that the non-financial information included in the Sustainability Report 2022 for the year ended December 31, 2022 of Suzano S.A. has not been prepared, in all material respects, in accordance with the criteria and guidelines of the Global Reporting Initiative - GRI (GRI-Standards) and with the basis of preparation developed by the Company.

## Other matters

We did not provide assurance, nor did other independent auditors, regarding the non-financial information for the year-ended December 31, 2021, presented for comparison purposes, consequently, our limited assurance does not include this information.

São Paulo, April 18, 2023

**PricewaterhouseCoopers**  
Auditores Independentes Ltda.  
CRC 2SP000160/O-5

**Maurício Colombari**  
Contador CRC 1SP195838/O-3





# GRI, SASB, WEF CONTENT INDEX

## GRI CONTENT INDEX

Statement of use	Suzano has reported in accordance with the GRI Standards for the period January 1 to December 31, 2022.				
GRI 1 used	GRI 1: Foundation 2021				
Applicable GRI Sector Standard(s)	-				
GRI STANDARD	DISCLOSURE	LOCATION	OMISSION	GLOBAL COMPACT PRINCIPLES	SDG
<b>General disclosures</b>					
<b>GRI 2: General Disclosures 2021</b>	2-1 Organizational details	Pages 6, 7, 8, 9	-	-	-
	2-2 Entities included in the organization's sustainability reporting	Page 18 and <a href="#">Supplementary GRI Disclosures</a>	-	-	-
	2-3 Reporting period, frequency and contact point	Page 18	-	-	-
	2-4 Restatements of information	Restatements of information, as well as their effects, are indicated throughout the Sustainability Report and the Sustainability Center.	-	-	-
	2-5 External assurance	Page 78 and <a href="#">Supplementary GRI Disclosures</a>	-	-	-
	2-6 Activities, value chain and other business relationships	Page 74 and <a href="#">Supplementary GRI Disclosures</a>	-	-	-
	2-7 Employees	Page 59 and <a href="#">Supplementary GRI Disclosures</a>	-	-	8.5, 10.3
	2-8 Workers who are not employees	Page 59 and <a href="#">Supplementary GRI Disclosures</a>	-	-	8.5, 10.3
	2-9 Governance structure and composition	Page 70 and <a href="#">Supplementary GRI Disclosures</a>	Due to strategic issues, the information in item c.vi) of the content cannot be disclosed.	-	5.5, 16.7
	2-10 Nomination and selection of the highest governance body	<a href="#">Supplementary GRI Disclosures</a>	-	-	5.5, 16.7
	2-11 Chair of the highest governance body	Page 70 and <a href="#">Supplementary GRI Disclosures</a>	-	-	16.6
	2-12 Role of the highest governance body in overseeing the management of impacts	<a href="#">Supplementary GRI Disclosures</a>	-	-	16.7
	2-13 Delegation of responsibility for managing impacts	Page 71 and <a href="#">Supplementary GRI Disclosures</a>	-	-	
	2-14 Role of the highest governance body in sustainability reporting	Page 17 and <a href="#">Supplementary GRI Disclosures</a>	-	-	
	2-15 Conflicts of interest	<a href="#">Supplementary GRI Disclosures</a>	-	-	16.6





<b>GRI STANDARD</b>	<b>DISCLOSURE</b>	<b>LOCATION</b>	<b>OMISSION</b>	<b>GLOBAL COMPACT PRINCIPLES</b>	<b>SDG</b>
<b>GRI 2: General Disclosures 2021</b>	2-16 Communication of critical concerns	<u>Supplementary GRI Disclosures</u>	As this is sensitive and highly strategic information, Suzano reserves the right not to publicly disclose the total number and nature of the crucial concerns communicated to the highest governance body (item b).	-	-
	2-17 Collective knowledge of the highest governance body	Page 70 and <u>Supplementary GRI Disclosures</u>	Due to strategic issues, the information in item a) of the content cannot be disclosed.	-	-
	2-18 Evaluation of the performance of the highest governance body	<u>Supplementary GRI Disclosures</u>	Due to strategic issues, the information in items a, b, and c of the content cannot be disclosed.	-	-
	2-19 Remuneration policies	<u>Supplementary GRI Disclosures</u>	-	-	-
	2-20 Process to determine remuneration	Supplementary GRI Disclosures	The information in item a.iii is not monitored according to the criteria established by the GRI Standard.	-	16.7
	2-21 Annual total compensation ratio	<u>Supplementary GRI Disclosures</u>	-	-	-
	2-22 Statement on sustainable development strategy	Pages 3, 4	-	-	-
	2-23 Policy commitments	Pages 72, 73 and <u>Supplementary GRI Disclosures</u>	-	-	16.3
	2-24 Embedding policy commitments	Page 72 and <u>Supplementary GRI Disclosures</u>	-	-	16.3
	2-25 Processes to remediate negative impacts	Page 73 and <u>Supplementary GRI Disclosures</u>	-	-	
	2-26 Mechanisms for seeking advice and raising concerns	Page 73 and <u>Supplementary GRI Disclosures</u>	-	-	16.3
	2-27 Compliance with laws and regulations	Page 73 and <u>Supplementary GRI Disclosures</u>	-	-	16.3
	2-28 Membership associations	Page 16 and <u>Supplementary GRI Disclosures</u>	-	-	
	2-29 Approach to stakeholder engagement	Page 15 and <u>Supplementary GRI Disclosures</u>	-	-	
	2-30 Collective bargaining agreements	<u>Supplementary GRI Disclosures</u>	-	-	8.8





GRI STANDARD	DISCLOSURE	LOCATION	OMISSION	GLOBAL COMPACT PRINCIPLES	SDG
<b>Materials topics</b>					
GRI 3: Material Topics 2021	3-1 Process to determine material topics	Page 17 and <a href="#">Supplementary GRI Disclosures</a>	-	-	-
	3-2 List of material topics	Page 18 and <a href="#">Supplementary GRI Disclosures</a>	-	-	-
<b>Economic performance – Material topic: Climate change</b>					
GRI 3: Material Topics 2021	3-3 Management of material topics	Page 18, 36, 39 and <a href="#">Supplementary GRI Disclosures</a>	-	-	13
GRI 201: Economic Performance 2016	201-2 Financial implications and other risks and opportunities due to climate change	Page 38 and <a href="#">Supplementary GRI Disclosures</a>	-	-	13.1
<b>Market Presence - Material topic: Land development</b>					
GRI 3: Material Topics 2021	3-3 Management of material topics	Page 18, 65 and <a href="#">Supplementary GRI Disclosures</a>	-	-	1, 5, 8
GRI 202: Market Presence 2016	202-1 Ratios of standard entry level wage by gender compared to local minimum wage	<a href="#">Supplementary GRI Disclosures</a>	-	-	1.2, 5.1, 8.5
	202-2 Proportion of senior management hired from the local community	<a href="#">Supplementary GRI Disclosures</a>	-	-	8.5
<b>Indirect Economic Impacts - Material topic: Land development</b>					
GRI 3: Material Topics 2021	3-3 Management of material topics	Pages 18, 65 and <a href="#">Supplementary GRI Disclosures</a>	-	-	1, 3, 5, 8, 9, 11
GRI 203: Indirect Economic Impacts 2016	203-1 Infrastructure investments and services supported	Page 13 and <a href="#">Supplementary GRI Disclosures</a>	-	-	5.4, 9.1, 9.4, 11.2
	203-2 Significant indirect economic impacts	<a href="#">Supplementary GRI Disclosures</a>	-	-	1.2, 1.4, 3.8, 8.2, 8.3, 8.5
<b>Procurement Practices - Material topic: Supplier management</b>					
GRI 3: Material Topics 2021	3-3 Management of material topics	Pages 18, 74 and <a href="#">Supplementary GRI Disclosures</a>	-	-	8
GRI 204: Procurement Practices 2016	204-1 Proportion of spending on local suppliers	Page 75 and <a href="#">Supplementary GRI Disclosures</a>	-	-	8.3
<b>Energy – Material topic: Climate change</b>					
GRI 3: Material Topics 2021	3-3 Management of material topics	Pages 18, 39 and <a href="#">Supplementary GRI Disclosures</a>	-	-	7, 8, 12, 13
GRI 302: Energy 2016	302-1 Energy consumption within the organization	Page 39 and <a href="#">Supplementary GRI Disclosures</a>	-	-	7.2, 7.3, 8.4, 12.2, 13.1
	302-2 Energy consumption outside of the organization	<a href="#">Supplementary GRI Disclosures</a>	-	-	7.2, 7.3, 8.4, 12.2, 13.1
	302-3 Energy intensity	Page 39 and <a href="#">Supplementary GRI Disclosures</a>	-	-	
	302-4 Reduction of energy consumption	<a href="#">Supplementary GRI Disclosures</a>	-	-	7.3, 8.4, 12.2, 13.1





GRI STANDARD	DISCLOSURE	LOCATION	OMISSION	GLOBAL COMPACT PRINCIPLES	SDG
<b>Water and effluents – Material topic: Water</b>					
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	Page 18, 52 and <a href="#">Supplementary GRI Disclosures</a>		-	6, 12
<b>GRI 303: Water and effluents 2018</b>	303-1 Interactions with water as a shared resource	<a href="#">Supplementary GRI Disclosures</a>	-	8, 9	6.3, 6.4, 6.A, 6.B, 12.4
	303-2 Management of water discharge-related impacts	<a href="#">Supplementary GRI Disclosures</a>	-	8, 9	6.3
	303-3 Water withdrawal	Page 52 and <a href="#">Supplementary GRI Disclosures</a>	-	8, 9	6.4
	303-4 Water discharge	<a href="#">Supplementary GRI Disclosures</a>	The information in item d) is not monitored according to the criteria established by the GRI Standard.	8, 9	6.3
	303-5 Water consumption	<a href="#">Supplementary GRI Disclosures</a>	-	8, 9	6.4
<b>Biodiversity – Material topic: Biodiversity</b>					
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	Pages 18, 42 and <a href="#">Supplementary GRI Disclosures</a>	-	-	6, 14, 15
<b>GRI 304: Biodiversity 2016</b>	304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	<a href="#">Supplementary GRI Disclosures</a>	The information for items i.v), v.i) and v.ii) of the indicator is not monitored according to the criteria established by the GRI Standard.	8, 9	6.6, 14.2, 15.1, 15.5
	304-2 Significant impacts of activities, products and services on biodiversity	<a href="#">Supplementary GRI Disclosures</a>	As we do not operate in an area of native vegetation, which we fully dedicate to the conservation of these habitats, we do not carry out an assessment of affected species, but monitor the presence of fauna and flora species.(iten b)	8, 9	6.6, 14.2, 15.1, 15.5
	304-3 Habitats protected or restored	Page 42 and <a href="#">Supplementary GRI Disclosures</a>	-	8, 9	6.6, 14.2, 15.1
	304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations	<a href="#">Supplementary GRI Disclosures</a>	-	8, 9	6.6, 14.2, 15.1, 15.5





GRI STANDARD	DISCLOSURE	LOCATION	OMISSION	GLOBAL COMPACT PRINCIPLES	SDG
<b>Emissions – Material topic: Climate change</b>					
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	Pages 18, 36 and <a href="#">Supplementary GRI Disclosures</a>	-	-	3, 12, 13, 14, 15
<b>GRI 305: Emissions 2016</b>	305-1 Direct (Scope 1) GHG emissions	<a href="#">Supplementary GRI Disclosures</a>	-	7, 8, 9	3.9, 12.4, 13.1, 14.3, 15.2
	305-2 Energy indirect (Scope 2) GHG emissions	<a href="#">Supplementary GRI Disclosures</a>	-	7, 8, 9	3.9, 12.4, 13.1, 14.3, 15.2
	305-3 Other indirect (Scope 3) GHG emissions	<a href="#">Supplementary GRI Disclosures</a>	-	7, 8, 9	3.9, 12.4, 13.1, 14.3, 15.2
	305-4 GHG emissions intensity	<a href="#">Supplementary GRI Disclosures</a>	-	7, 8, 9	3.9, 12.4, 13.1, 14.3, 15.2
	305-5 Reduction of GHG emissions	<a href="#">Supplementary GRI Disclosures</a>		7, 8, 9	13.1, 14.3, 15.2
<b>Supplier Environmental Assessment – Material topic: Supplier management</b>					
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	Pages 18, 74 and <a href="#">Supplementary GRI Disclosures</a>	-	-	-
<b>GRI 308: Supplier Environmental Assessment 2016</b>	308-1 New suppliers that were screened using environmental criteria	Page 74 and <a href="#">Supplementary GRI Disclosures</a>	-	7, 8, 9	-
	308-2 Negative environmental impacts in the supply chain and actions taken	<a href="#">Supplementary GRI Disclosures</a>	-	7, 8, 9	-
<b>Employment – Material topic: Diversity, equity and inclusion</b>					
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	Pages 18, 60 and <a href="#">Supplementary GRI Disclosures</a>	-	-	3, 5, 8, 10
<b>GRI 401: Employment 2016</b>	401-1 New employees hires and employees turnover	<a href="#">Supplementary GRI Disclosures</a>	-	6	5.1, 8.5, 8.6, 10.3
	401-3 Parental leave	<a href="#">Supplementary GRI Disclosures</a>	-	6	5.1, 5.4, 8.5
<b>Diversity and equal opportunity – Material topic: Diversity, equity and inclusion</b>					
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	Page 18, 60 and <a href="#">Supplementary GRI Disclosures</a>	-	-	5, 8, 10
<b>GRI 405: Diversity and equal opportunity 2016</b>	405-1 Diversity of governance bodies and employees	Pages 60, 70 and <a href="#">Supplementary GRI Disclosures</a>	For strategic reasons and the company's decision, the information in item b) was not disclosed in this cycle.	-	5.1, 5.5, 8.5
	405-2 Ratio of basic salary and remuneration of women to men	<a href="#">Supplementary GRI Disclosures</a>	Suzano does not report information by operating unit as management is carried out on a consolidated basis. Therefore, no information was reported for items a and b.	-	5.1, 8.5, 10.3





<b>GRI STANDARD</b>	<b>DISCLOSURE</b>	<b>LOCATION</b>	<b>OMISSION</b>	<b>GLOBAL COMPACT PRINCIPLES</b>	<b>SDG</b>
<b>Non-discrimination - Material topic: Diversity, equity and inclusion</b>					
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	Pages 18, 60 and <a href="#">Supplementary GRI Disclosures</a>	-	-	5, 8
<b>GRI 406: Non-discrimination 2016</b>	406-1 Incidents of discrimination and corrective actions taken	<a href="#">Supplementary GRI Disclosures</a>	-	1, 2, 3, 4, 5, 6	5.1, 8.8
<b>Freedom of Association and Collective Bargaining - Material topic: Human rights</b>					
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	Pages 18, 73 and <a href="#">Supplementary GRI Disclosures</a>	-	-	8
<b>GRI 407: Freedom of Association and Collective Bargaining 2016</b>	407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	<a href="#">Supplementary GRI Disclosures</a>	No risk was identified, so geographic areas are not reported.	1, 2, 3, 4, 5, 6	8.8
<b>Child Labor - Material topic: Human rights</b>					
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	Pages 18, 73 and <a href="#">Supplementary GRI Disclosures</a>	-	-	5, 8, 16
<b>GRI 408: Child Labor 2016</b>	408-1 Operations and suppliers at significant risk for incidents of child labor	<a href="#">Supplementary GRI Disclosures</a>	No risk was identified, so geographic areas are not reported. Therefore, no information was reported for items a.i and a.ii.	1, 2, 6	5.2, 8.7, 16.2
<b>Forced or Compulsory Labor- Material topic: Human rights</b>					
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	Pages 18, 73 and <a href="#">Supplementary GRI Disclosures</a>	-	-	5, 8
<b>GRI 409: Forced or Compulsory Labor 2016</b>	409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	<a href="#">Supplementary GRI Disclosures</a>	No risk was identified, so geographic areas are not reported. Therefore, no information was reported for item a.i.	1, 2, 3	5.2, 8.7
<b>Security Practices- Material topic: Human rights</b>					
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	Pages 18, 73 and <a href="#">Supplementary GRI Disclosures</a>	-	-	16
<b>GRI 410: Security Practices 2016</b>	410-1 Security personnel trained in human rights policies or procedures	<a href="#">Supplementary GRI Disclosures</a>	-	1, 2, 5	16.1
<b>Rights of Indigenous Peoples - Material topic: Land development</b>					
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	Pages 18, 73 and <a href="#">Supplementary GRI Disclosures</a>	-	-	1, 2, 5, 8, 9, 11, 16
<b>GRI 411: Rights of Indigenous Peoples 2016</b>	411-1 Incidents of violations involving rights of indigenous peoples	Page 68 and <a href="#">Supplementary GRI Disclosures</a>	-	1, 2, 4	2.3





GRI STANDARD	DISCLOSURE	LOCATION	OMISSION	GLOBAL COMPACT PRINCIPLES	SDG
<b>Local Communities - Material topic: Land development</b>					
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	Pages 18, 65 and <a href="#">Supplementary GRI Disclosures</a>	-	-	1, 2
<b>GRI 413: Local Communities 2016</b>	413-1 Operations with local community engagement, impact assessments, and development programs	Page 65 and <a href="#">Supplementary GRI Disclosures</a>	-	-	-
	413-2 Operations with significant actual and potential negative impacts on local communities	<a href="#">Supplementary GRI Disclosures</a>	-	-	1.4, 2.3
<b>Supplier Social Assessment - Material topic: Supplier management</b>					
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	Pages 18, 74 and <a href="#">Supplementary GRI Disclosures</a>	-	-	5, 8, 16
<b>GRI 414: Supplier Social Assessment 2016</b>	414-1 New suppliers that were screened using social criteria	Page 74 and <a href="#">Supplementary GRI Disclosures</a>	-	-	5.2, 8.8, 16.1
	414-2 Negative social impacts in the supply chain and actions taken	<a href="#">Supplementary GRI Disclosures</a>	-	-	5.2, 8.8, 16.1
<b>Material topic: Innovability</b>					
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	Pages 18, 26, 31 and <a href="#">Supplementary GRI Disclosures</a>	-	-	9, 15, 16

### Other non-material disclosures monitored and reported in the Report - Complementary information

<b>GRI 306: Waste 2020</b>	306-3 Waste generated	Page 56	-	7, 8, 9	3.9, 11.6, 12.4, 12.5
	306-4 Waste diverted from disposal	Page 56	-	7, 8, 9	3.9, 11.6, 12.4, 12.5
	306-5 Waste directed to disposal	Page 56	-	7, 8, 9	3.9, 11.6, 12.4, 12.5
<b>GRI 403: Occupational Health and Safety 2018</b>	403-1 Occupational health and safety management system	Page 64	-	-	8.8
	403-9 Work-related injuries	Pages 63, 64 and <a href="#">Supplementary GRI Disclosures</a>	-	-	3.6, 3.9, 8.8, 16.1
	403-10 Work-related ill health	<a href="#">Supplementary GRI Disclosures</a>	-	-	3.3, 3.4, 3.9, 8.8, 16.1
<b>GRI 404: Training and Education 2016</b>	404-1 Average hours of training per year per employee	<a href="#">Supplementary GRI Disclosures</a>	-	1, 6	4.3, 4.4, 4.5, 5.1, 8.2, 8.5, 10.3
	404-3 Percentage of employees receiving regular performance and career development reviews	Page 59	-	1, 6	5.1, 8.5, 10.3





## SASB – SUSTAINABILITY DISCLOSURE TOPICS & ACCOUNTING METRICS

TOPIC	CODE	ACCOUNTING METRIC	LOCATION
<b>FORESTRY MANAGEMENT</b>			
<b>Ecosystem Services &amp; Impacts</b>	RR-FM-160a.1	Area of forestland certified to a third- party forest management standard, percentage certified to each standard	<a href="#">Sustainability Center</a>
	RR-FM-160a.2	Area of forestland with protected conservation status	<a href="#">Sustainability Center</a>
	RR-FM-160a.3	Area of forestland in endangered species habitat	<a href="#">Sustainability Center</a>
	RR-FM-160a.4	Description of approach to optimizing opportunities from ecosystem services provided by forestlands	<a href="#">Sustainability Center</a>
<b>Rights of Indigenous Peoples</b>	RR-FM-210a.1	Area of forestland in indigenous land	<a href="#">Sustainability Center</a>
	RR-FM-210a.2	Description of engagement processes and due diligence practices with respect to human rights, indigenous rights and the local community	<a href="#">Sustainability Center</a>
<b>Climate Change Adaptation</b>	RR-FM-450a.1	Description of strategy to manage opportunities for and risks to forest management and timber production presented by climate change	<a href="#">Sustainability Center</a>
<b>Activity Metrics</b>	RR-FM-000.A	Area of forestland owned, leased and/or man-aged by the entity	<a href="#">Sustainability Center</a>
	RR-FM-000.B	Aggregate standing timber inventory	<a href="#">Sustainability Center</a>
	RR-FM-000.C	Timber harvest volume	<a href="#">Sustainability Center</a>
<b>PULP AND PAPER PRODUCTS</b>			
<b>Greenhouse Gas Emissions</b>	RR-PP-110a.1	Gross global Scope 1 emissions	<a href="#">Sustainability Center</a>
	RR-PP-110a.2	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets and an analysis of performance against those targets	Pages 18, 36, 39 and <a href="#">Sustainability Center</a>
<b>Air Quality</b>	RR-PP-120a.1	Air emissions of the following pollutants: (1) NO <sub>x</sub> (excluding N <sub>2</sub> O), (2) SO <sub>x</sub> , (3) volatile organic compounds (VOCs), (4) particulate matter (PM) and (5) hazardous air pollutants (HAPs)	<a href="#">Sustainability Center</a>
<b>Energy Management</b>	RR-PP-130a.1	(1) Total energy consumed, (2) percentage grid electricity, (3) percentage from biomass, (4) percentage from other renewable energy	Page 39 and <a href="#">Sustainability Center</a>
<b>Water Management</b>	RR-PP-140a.1	(1) Total water withdrawn, (2) total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	<a href="#">Sustainability Center</a>
	RR-PP-140a.2	Description of water management risks and discussion of strategies and practices to mitigate those risks	Pages 18, 52 and <a href="#">Sustainability Center</a>
<b>Supply Chain Management</b>	RR-PP-430a.1	Percentage of wood fiber sourced from (1) third-party certified forestlands and percentage to each standard and (2) meeting other fiber sourcing standards and percentage to each standard	<a href="#">Sustainability Center</a>
	RR-PP-430a.2	Amount of recycled and recovered fiber procured	Page 56 and <a href="#">Sustainability Center</a>



TOPIC	CODE	ACCOUNTING METRIC	LOCATION
Activity Metrics	RR-PP-000.A	Pulp production	<a href="#">Sustainability Center</a>
	RR-PP-000.B	Paper production	<a href="#">Sustainability Center</a>
CONTAINERS & PACKAGING			
Greenhouse Gas Emissions	RT-CP-110a.1	Gross global Scope 1 emissions, percentage covered under emissions- limiting regulations	<a href="#">Sustainability Center</a>
	RT-CP-110a.2	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets and an analysis of performance against those targets	Pages 18, 36, 39 and <a href="#">Sustainability Center</a>
Air Quality	RT-CP-120a.1	Air emissions of the following pollutants: (1) NOx (excluding N <sub>2</sub> O), (2) SOx, (3) volatile organic compounds (VOCs) and (4) particulate matter (PM)	<a href="#">Sustainability Center</a>
Energy Management	RT-CP-130a.1	(1) Total energy consumed, (2) percentage grid electricity, (3) percentage renewable, (4) total self- generated energy	Page 39 and <a href="#">Sustainability Center</a>
Water Management	RT-CP-140a.1	(1) Total water withdrawn, (2) total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	<a href="#">Sustainability Center</a>
	RR-CP-140a.2	Description of water management risks and discussion of strategies and practices to mitigate those risks	Pages 18, 52 and <a href="#">Sustainability Center</a>
	RT-CP-140a.3	Number of incidents of non-compliance associated with water quality permits, standards and regulations	<a href="#">Sustainability Center</a>
Waste Management	RT-CP-150a.1	Amount of hazardous waste generated, percent-age recycled	<a href="#">Sustainability Center</a>
Product Safety	RT-CP-250a.1	Number of recalls issued, total units recalled	<a href="#">Sustainability Center</a>
	RT-CP-250a.2	Discussion of process to identify and manage emerging materials and chemicals of concern	<a href="#">Sustainability Center</a>
Product Lifecycle Management	RT-CP-410a.1	Percentage of raw materials from: (1) recycled content, (2) renewable resources and (3) renew-able and recycled content	<a href="#">Sustainability Center</a>
	RT-CP-410a.2	Revenue from products that are reusable, recyclable and/or compostable	<a href="#">Sustainability Center</a>
	RT-CP-410a.3	Discussion of strategies to reduce the environmental impact of packaging throughout its lifecycle	<a href="#">Sustainability Center</a>
Supply Chain Management	RT-CP-430a.1	Total wood fiber procured, percentage from certified sources	<a href="#">Sustainability Center</a>
	RT-CP-430a.2	Total aluminum purchased, percentage from certified sources	The standard does not apply to Suzano.
Activity Metrics	RT-CP-000.A	Amount of production, by substrate	<a href="#">Sustainability Center</a>
	RT-CP-000.B	Percentage (%) by revenue	<a href="#">Sustainability Center</a>
	RT-CP-000.C	Number of employees	Page 59 and <a href="#">Sustainability Center</a>



# SUMMARY OF STAKEHOLDER CAPITALISM METRICS (WEF)

TOPIC	CORE METRIC	DETAIL	LOCATION
PRINCIPLES OF GOVERNANCE			
Governing Purpose	Setting purpose	The company’s stated purpose, as the expression of the means by which a business proposes solutions to economic, environmental, and social issues. Corporate purpose should create value for all stakeholders, including shareholders.	Page 4 and <a href="#">Sustainability Center</a>
Ethical Behavior	Anti-corruption	1. Total percentage of governance body members, employees and business partners who have received training on the organization's anti-corruption policies and procedures, broken down by region.	<a href="#">Sustainability Center</a>
		a) Total number and nature of incidents of corruption confirmed during the current year but related to previous years. b) Total number and nature of incidents of corruption confirmed during the current year, related to this year.	<a href="#">Sustainability Center</a>
		2) Discussion of initiatives and stakeholder engagement to improve the broader operating environment and culture, in order to combat corruption.	<a href="#">Sustainability Center</a>
	Protected ethics advice and reporting mechanisms	A description of internal and external mechanisms for: 1. Seeking advice about ethical and lawful behavior and organizational integrity..	<a href="#">Sustainability Center</a>
		A description of internal and external mechanisms for: 2. Reporting concerns about unethical or lawful behavior and organizational integrity.	<a href="#">Sustainability Center</a>
Risk and Opportunity Oversight	Integrating risk and opportunity into business process	Company risk factor and opportunity disclosures that clearly identify the principal material risks and opportunities facing the company specifically (as opposed to generic sector risks), the company appetite in respect of these risks, how these risks and opportunities have moved over time and the response to those changes. These opportunities and risks should integrate material economic, environmental, and social issues, including climate change and data stewardship.	<a href="#">Sustainability Center</a>
PLANET			
Climate Change	Greenhouse Gas (GHG) emissions	For all relevant greenhouse gases (e.g. carbon dioxide, methane, nitrous oxide, F-gases etc.), report in metric tons of carbon dioxide equivalent (tCO <sub>2</sub> e) GHG Protocol Scope 1 and Scope 2 emissions. Estimate and report material upstream and downstream (GHG Protocol Scope 3) emissions where appropriate.	<a href="#">Sustainability Center</a>
	TCFD implementation	Fully implement the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). If necessary, disclose a timeline of at most three years for full implementation. Disclose whether you have set, or have committed to set, GHG emissions targets that are in line with the goals of the Paris Agreement – to limit global warming to well-below 2°C above pre-industrial levels and pursue efforts to limit warming to 1.5°C – and to achieve net-zero emissions before 2050.	<a href="#">Sustainability Center</a>
Nature Loss	Land use and ecological sensitivity	Report the number and area (in hectares) of sites owned, leased or managed in or adjacent to protected areas and/or key biodiversity areas (KBA).	<a href="#">Sustainability Center</a>
Fresh Water Availability	Water consumption and withdrawal in water-stressed areas	Report for operations where material, mega liters of water withdrawn, mega liters of water consumed and the percentage of each in regions with high or extremely high baseline water stress according to WRI Aqueduct water risk atlas tool. Estimate and report the same information for the full value chain (upstream and downstream) where appropriate.	<a href="#">Sustainability Center</a>



TOPIC	CORE METRIC	DETAIL	LOCATION
PEOPLE			
Dignity and equality	Diversity and inclusion (%)	Percentage of employees per employee category, per age group, gender and other indicators of diversity (e.g. ethnicity).	Page 60 and <a href="#">Sustainability Center</a>
	Pay equality (%)	Ratio of the basic salary and remuneration for each employee category by significant locations of operation for priority areas of equality: women to men; minor to major ethnic groups; and other relevant equality areas.	<a href="#">Sustainability Center</a>
Dignity and equality	Wage level (%)	1. Ratios of standard entry-level wage by gender compared to local minimum wage.	<a href="#">Sustainability Center</a>
		2. Ratio of CEO's total annual compensation to median total annual compensation of all employees (excluding the CEO).	<a href="#">Sustainability Center</a>
	Risk for incidents of child, forced or compulsory labor	An explanation of the operations and suppliers considered to have significant risk for incidents of child labor, forced or compulsory labor. Such risks could emerge in relation to type of operation (such as manufacturing plant) and type of supplier; or countries or geographic areas with operations and suppliers considered at risk.	<a href="#">Sustainability Center</a>
Health & Wellbeing	Health and safety (%)	The number and rate of fatalities as a result of work-related injury; high-consequence work-related injuries (excluding fatalities); recordable work-related injuries, main types of work-related injury; and the number of hours worked. An explanation of how the organization facilitates workers' access to non-occupational medical and healthcare services and the scope of access provided for employees and workers.	Page 63 and <a href="#">Sustainability Center</a>
Skills for the Future	Training provided	1. Average hours of training per person that the organization's employees have undertaken during the reporting period, by gender and employee category (total number of trainings provided to employees divided by the number of employees).	<a href="#">Sustainability Center</a>
		2. Average training and development expenditure per full time employee (total cost of trainings provided to employees divided by the number of employees).	<a href="#">Sustainability Center</a>
PROSPERITY			
Employment and Wealth Generation	Absolute number and rate of employment	1. Total number and rate of new employee hires during the reporting period, by age group, gender, other indicators of diversity and region.	<a href="#">Sustainability Center</a>
		2. Total number and rate of employee turnover during the reporting period, by age group, gender, other indicators of diversity and region.	<a href="#">Sustainability Center</a>
Employment and Wealth Generation	Economic Contribution	1.Direct economic value generated and distributed (EVG&D), on an accrual basis, covering the basic components for the organization's global operations, ideally split out by: – Revenue – Operating costs – Employee wages and benefits – Payments to providers of capital – Payments to government – Community investment.	<a href="#">Sustainability Center</a>
		2. Financial assistance received from the government: total monetary value of financial assistance received by the organization from any government during the reporting period.	<a href="#">Sustainability Center</a>
	Financial investment contribution	1. Total capital expenditures (CapEx) minus depreciation, supported by narrative to describe the company's investment strategy.	<a href="#">Sustainability Center</a>
		2. Share repurchases plus dividend payments, supported by narrative to describe the company's strategy for returning capital to shareholders.	<a href="#">Sustainability Center</a>
Innovation in Better Products and Services	Total R&D expenses (\$)	Total costs related to research and development.	<a href="#">Sustainability Center</a>
Community and Social Vitality	Total tax paid	The total global tax borne by the company, including corporate income taxes, property taxes, non-creditable VAT and other sales taxes, employer- paid payroll taxes and other taxes that constitute costs to the company, by category of taxes.	<a href="#">Sustainability Center</a>



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