Klabin

2025

Climate **Transition Plan**

Overview

Klabin's commitment to the climate transition

Global warming is one of the main challenges facing humanity today. The increase in the planet's average temperature has caused significant impacts, such as prolonged droughts, floods, forest fires and other extreme weather events, which are becoming increasingly frequent and intense. These risks are expected to intensify as global warming progresses.

In response to this crisis, in 2015, during the 21st Conference of the Parties (COP21), 195 countries signed the Paris Agreement, committing to limit the increase in global average temperature to 1.5°C above pre-industrial levels. According to the Intergovernmental Panel on Climate Change (IPCC), achieving this target requires reducing global greenhouse gas (GHG) emissions by approximately 50% by 2030, using 2010 as the baseline, and reaching net emissions by 2050. However, current efforts fall short of what is required, and there is growing urgency for more ambitious and structured actions, both from governments and from companies.

In this context, Klabin's Climate Transition Plan aims to present the Company's strategy to align its operations and value chain with a pathway consistent with limiting global warming to 1.5°C. Klabin is committed to significantly reducing its GHG emissions by 2030 and to achieving net-zero emissions by 2050, in line with the latest climate science recommendations.

Klabin continuously monitors key external policies that may impact its operations. Among the mechanisms being followed are the Carbon Border Adjustment Mechanism (CBAM) and the European Union Emissions Trading System (EU ETS), whose requirements and criteria are being assessed with a focus on traceability and climate performance across the value chain, especially in the context of exports to the European Union.

Regarding the Brazilian regulatory context, the Company closely follows the implementation of Law 15,042/2024, which establishes the Brazilian Emissions Trading System (SBCE). The Company participates in sector forums, such as the technical committees of the Brazilian Tree Industry Association (Ibá), contributing to the regulatory debate and anticipating potential operational and financial impacts resulting from the future implementation of the national carbon market.

Additionally, the Company is monitoring the evolution of climate and financial reporting standards, such as IFRS S2 and the Corporate Sustainability Reporting Directive (CSRD), with an emphasis on climate governance, data transparency and the integration of climate-related risks and opportunities into its business strategy.

The Climate Transition Plan also addresses the management of interrelated environmental issues, such as soil, water and biodiversity, which directly impact Klabin's climate strategy. These aspects are essential to accelerate the transition towards a sustainable future and reflect the Company's commitment to systemic approaches to climate change mitigation and adaptation.

Klabin recognizes that deforestation is one of the main drivers of increased GHG emissions in Brazil – according to the Brazilian Climate Observatory, it was the primary factor contributor for the 17.2% increase in national emissions in 2021. Aware of the importance of this issue, the Company reaffirms its zero-deforestation commitment and takes proactive measures to conserve ecosystems. As part of this effort, Klabin has developed and publicly disclosed its Biodiversity and Ecosystem Services Conservation Plan. The Company's initiatives include nature-based solutions, internationally recognized for their potential to generate integrated climate, social and environmental benefits. This approach enhances the resilience of the Company's assets, mitigates physical and regulatory risks, and creates strategic opportunities – in line with the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD) and international climate and sustainability reporting standards established by the IFRS through the International Sustainability Standards Board (ISSB).

This Climate Transition Plan, along with the Biodiversity Plan and Water Conservation Plan, is available for consultation on Klabin's ESG Panel.

The purpose of this Climate Transition Plan is to communicate Klabin's ambitions and initiatives dedicated to addressing the impacts of climate change to its stakeholders. The actions presented are based on climate scenario analysis, which is used as a foundation for strategic decision making.

The plan also details the process for identifying and assessing climate-related risks and opportunities, as well as the mitigation, adaptation and resilience strategies adopted in operations and the value chain. This content complies with TCFD recommendations and is based on International Financial Reporting Standards (IFRS S2) requirements, established by the International Sustainability Standards Board (ISSB).

For consultation, comments, and suggestions regarding Klabin's Climate Transition Plan, please visit: **https://klabin.com.br/fale-conosco**

Methodologies and standards used

CDP Technical Note: Reporting on Transition Plans (CDP)

European Sustainability Reporting Standards (ESRS E1)

Forest, Land Sector and Agriculture Guidance (SBTi)

GHG Protocol (Corporte Standard, Corporate Value Chain (Scope 3) Standard

GHG Protocol Land Sector and Removals Guidance

How-to guide to corporate internal carbon pricing

International Energy Agency (IEA)

International Financial Reporting Standards (IFRS) International Sustainability Standards Board (ISSB - S1 e S2)

Intergovernmental Panel on Climate Change (IPCC)

Business Ambition for 1.5°C global campaign (UN Global Compact)

SBTi Net-Zero Standard SBTi Supplier Engagement Guidance

Recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD)

StandardsTransition Plan Taskforce framework (IFRS)

Transition planning and climate scenario analysis: Food, Agriculture and Forest Products (WBCSD)

Brazilian Sustainability Accounting Standards Board (CBPS 2)

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Context and history of **climate commitments**

Forest mosaic, Telêmaco Borba, Paraná

Context and history of climate commitments

Klabin is Brazil's largest producer and exporter of packaging paper and sustainable paper packaging solutions, and a leader in the corrugated board packaging and sack kraft packaging markets. It is also the only company in Brazil to offer hardwood, softwood and fluff pulp solutions to the market. Management of climate-related aspects is part of the Company's business strategy and one of the high-priority topics of the Klabin 2030 Agenda, which includes the Klabin Sustainable Development Goals.

Founded over **125 years** ago, Klabin has:

23 mills: = **22 mills** in Brazil + **1 mill** in Argentina

WELL-MANAGED FORESTS

Managed forests in São Paulo, Paraná, Santa Catarina and Rio Grande do Sul

END-TO-END PRODUCTION

Operations ranging from wood and pulp production to paper and packaging manufacturing

COMMITMENT TO INNOVATION AND TECHNOLOGY

Research teams work to improve product quality, develop new forest-based products, and enhance practices throughout the production chain

Dow Jones Best-in-Class Indices

With a record-high score, Klabin has remained in the Global portfolio and returned to the Emerging Markets portfolio of the Dow Jones Best-in-Class Indices, which feature global companies that are leaders in economic performance, governance practices, and socio-environmental performance.

S&P Sustainability Yearbook

In 2025, Klabin once again ranked among the Top 1% of companies with the best ESG practices in the S&P Global Corporate Sustainability Assessment, being the only Brazilian company to achieve this classification. In this cycle, the Company also attained its highest-ever score in the evaluation.

CDP

Klabin remains in the leadership categories across all three CDP themes (Water, Forest and Climate Change).

Commitment to zero illegal deforestation

The Company does not engage in illegal deforestation in its operations and strives to ensure that its entire forest supply chain is aligned with the principles of land conservation and sustainable land use. See the Company's declaration here.

Klabin Ecological Park, Telêmaco Borba, Paraná

Klabin

Science-based approach

Klabin has been quantifying its greenhouse gas (GHG) emissions for over two decades, continuously investing in low-carbon technologies. Climate change management is one of the pillars of its Sustainability Policy and is detailed in its Guidelines for Climate Change Management – Mitigation and Adaptation. These guidelines, which are based on climate science, propose a long-term development model, resilient and aligned with a sustainable future. The main milestones guiding the management include the United Nations' Business Ambition for 1.5°C global campaign and the Company's commitment to reducing and neutralizing its emissions by 2050.

Klabin's Sustainable Development Goals include a science-based commitment to reducing GHG emissions. Klabin was the first company in the pulp and paper industry in Latin America to have its targets validated by the Science Based Targets initiative (SBTi), which establishes scientific standards to orient companies in setting climate targets aligned with sustainable economic development and limiting global warming.

In December 2024, Klabin had its GHG emission reduction targets approved by the SBTi. The targets, previously based on the "Well Below 2°C" scenario, have been updated and are now aligned with the "1.5°C scenario", considering emissions from industrial activities.

Throughout this Climate Transition Plan, Klabin will present its emission results, in accordance with the standards established by the GHG Protocol and the SBTi, organized into two categories:

1

Energy and Industry, covering the emissions from industrial operations and forming part of the target approved under the 1.5°C and Net-Zero by 2050 scenario; and

2

Forest, Land and Agriculture (FLAG), encompassing emissions related to land use and the forestry sector, with its to be submitted for validation once the SBTi completes its methodological review.

This distinction ensures transparency and alignment with the most up-to-date scientific requirements, reflecting the Company's commitment to a robust and evidence-based climate trajectory.

Eucalyptus forest, Telêmaco Borba, Paraná

Klabin's historic commitment to the global climate challenge

2019

- **March 2019**
  Klabin signs Science Based Target initiative (SBTi) Commitment Letter.

- **September 2019**
  Klabin commits to a reduction target under the Business Ambition for 1.5ºC global campaign.

2020

- **December 2020**
  The Company submits two science-based targets, aligned with the "Well Below 2°C" scenario, for 2025 and 2035.

2021

- **February 2021**
  Klabin makes a new commitment to the Business Ambition for 1.5ºC global campaign (net-zero target).

- **May 2021**
  The SBTi approves the two science-based targets submitted by Klabin.

2023

- **July 2023**
  Klabin releases its Climate Transition Plan – a document that outlines the Company's climate mitigation and adaptation strategies.

- **September 2023**
  Klabin launches the Value Chain Engagement Program to engage and develop key suppliers and clients in terms of GHG emissions.

2024

- **January 2024**
  The Company submits an updated short-term target for 2030 and a new long-term (net-zero) target for 2050 to the SBTi. Both targets include Scopes 1, 2 and 3 emissions and are aligned with the 1.5°C scenario.

- **December 2024**
  The SBTi approves Klabin's science-based targets, aligned with the 1.5°C scenario in 2050.

2

Governance

CBPS 02 (IFRS S2): 6 a (i, ii, iii, iv); 6 b (i,ii); 29 g i

Serra da Farofa Private Nature Reserve, Santa Catarina

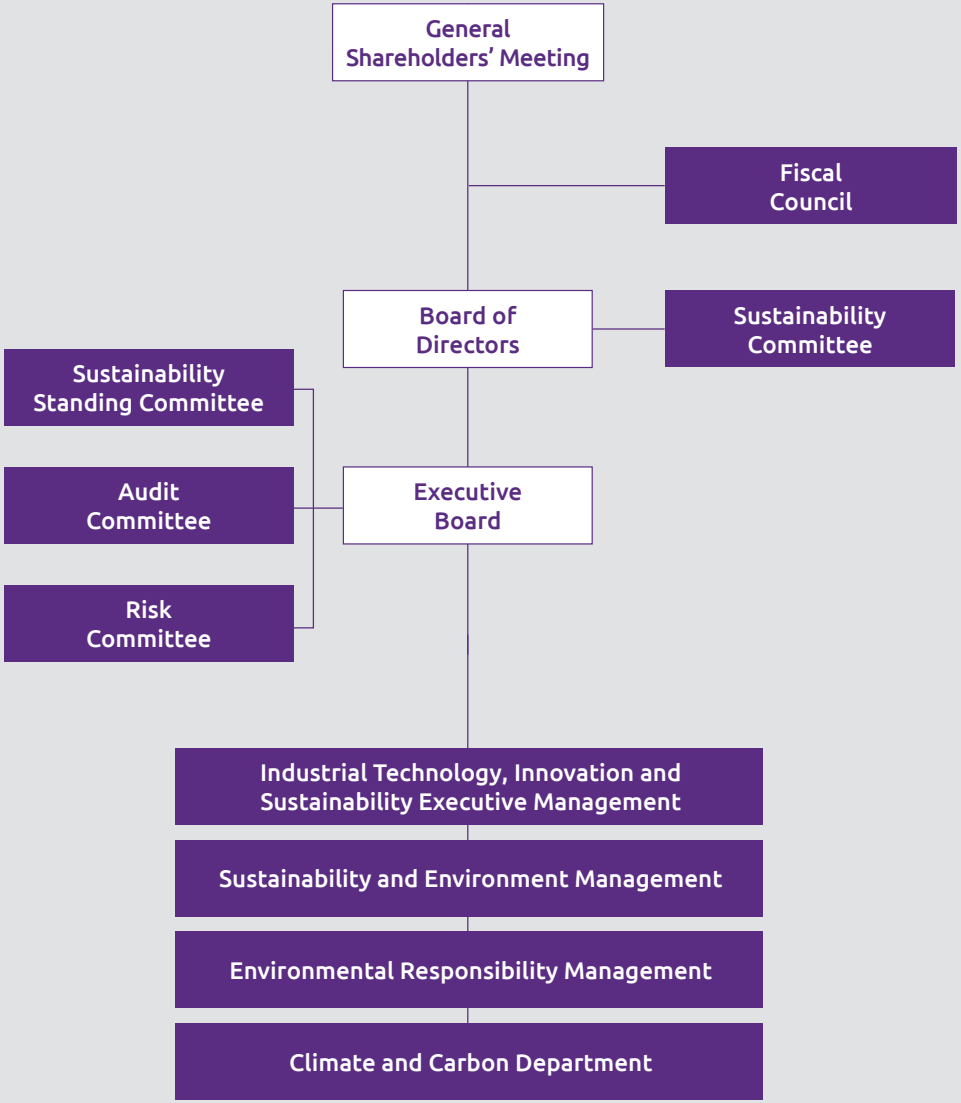
Oversight by the Board of Directors

Klabin's governance is aligned with the best national and international practices, focusing on management development, ethical relations and commitment to environmental, social and governance issues. Since 2011, the Company has adhered to the Brazilian Association of Publicly Held Companies Code of Self-Regulation and Good Practices for Publicly Held Companies (Abrasca). It has been listed on Governance Level 2 Governance on São Paulo Stock Exchange (B3) for over a decade, reinforcing its commitment to transparency and the continuous strengthening of corporate governance practices.

The Company's main governance bodies are the General Shareholders' Meeting, Fiscal Council (a supervisory body required by Brazilian corporate law), the Board of Directors, the Executive Board, and the advisory committees to the Board of Directors. These bodies work in synergy to achieve the best economic, social and environmental results.

The Board of Directors is responsible for guiding the Company towards the achievement of its objectives. Its members meet every two months or as needed. The body is advised by three committees – the People and Culture Committee, the Audit and Related Parties Committee, and the Sustainability Committee – which monitor relevant issues in accordance with their respective regulations and submit their findings and recommendations to the Board of Directors.

Board of Directors



Kraft paper reel

Executive governance

Decisions related to climate change are approved by the Executive Board, with the support of the Risk Committee and Sustainability Committee.

In this context, the topic underpins strategic decisions, integrating corporate governance through actions such as the review and guidance of the assessment process of environmental dependencies, impacts, risks and opportunities; development and direction of business strategy; the oversight of acquisitions, mergers and divestments; the evaluation and approval major capital expenditures; the monitoring of progress toward corporate targets; the establishment of environmental goals; and the analysis of climate scenarios that may impact operations and the Company's strategic positioning.

Reinforcing the importance of this topic for Klabin, CEO Cristiano Teixeira is one of the ambassadors for UN Sustainable Development Goal 13 (Climate Action) within the UN Global Compact's Brazilian Network. In this role, he actively engages the private sector to reduce GHG emissions through science-based targets and the ImPacto NetZero and Race to Resilience campaigns.

For further details on this topic, please refer to the 2024 Sustainability Report

The Sustainability Standing Committee, composed of both statutory and non-statutory directors, meets quarterly to discuss and deliberate on social and environmental issues. During these meetings, the results of new project monitoring, the environmental performance of industrial units and climate risks are presented and discussed. Based on these analyses, the officers provide guidance on budgetary decisions related to investments and the management of action plans aimed at controlling and mitigating the assessed risks.

Structure and responsibilities of Climate and Carbon Department

Sustainability Committee

The Sustainability Committee is responsible for periodically reporting to the Board of Directors on issues related to climate change, ensuring that the topic is integrated into the Company's strategic agenda.

Executive Board

The Executive Board monitors and approves matters related to climate change. The board's responsibilities include approving and overseeing the Climate Transition Plan, validating emission reduction targets, and considering climate criteria and scenarios in assessments of investments and project feasibility, using internal carbon pricing. In addition, senior management periodically monitors climate performance indicators and is directly involved in approving public policies and commitments and promoting transparency by disclosing results on platforms such as CDP, TCFD and IFRS S2. The board is also responsible for the assessment of trends and impacts associated with the value chain.

Risk Committee and Sustainability Committee

These committees are responsible for evaluating and monitoring the information provided by the company departments and areas which are responsible for climate change matters.

Sustainability and Environment Management

The managers are tasked with identifying, analyzing, addressing and periodically monitoring climate-related risks and opportunities that could affect Klabin's activities and strategy. They are also responsible for proposing measures to adapt to and mitigate these risks and leverage opportunities, linked to the creation of action plans and financial planning.

Climate and Carbon Department

The Company has an area dedicated to climate change projects and managing carbon-related matters.

All aspects related to carbon management at the Company fall under the responsibility of the Climate and Carbon Area, which works in an integrated manner to ensure strategic alignment and compliance of the commitments undertaken. Among its responsibilities is the active participation in forums and technical groups that discuss public policies, regulations and strategies dedicated to climate change, with emphasis on the following:

- ✓ **The Brazilian Tree Industry Association (IBÁ):** participation on the Climate Change Committee and working groups related to the topic.
- ✓ **The Brazilian Business Council for Sustainable Development (CEBDS):** participation on Climate and Energy Technical Working Groups, which address issues related to the energy transition and corporate climate commitments.

Paper Machine 28, Ortigueira Unit, Ortigueira, Paraná

Climate performance-based compensation

Since 2022, the performance-based pay of the CEO and directors has been tied to the achievement of sustainability targets, including reductions in GHG emissions validated by the SBTi. In 2024, this link was extended to 100% of employees at all levels. Currently, 20% of performance-based pay is linked to the attainment of sustainability targets (climate, water, forests, diversity and safety). Additionally, part of employees' performance-based pay may be tied to Klabin's long-term commitments through the Long-Term Incentives for All Program. These measures demonstrate the importance of sustainability, including climate goals, in the daily routines of senior management and employees.

Sustainability Policy

Klabin's Sustainability Policy consists of 19 guidelines that underpin its commitment to sustainable development. The policy encompasses leadership and governance, the environment (risk assessment), human capital, social capital and innovation. The document defines stakeholders as "workers (both employees and contractors), shareholders, communities, business partners, public and private organizations, the financial sector and the third sector." These stakeholders' representatives are expected to adopt similar commitments and conduct to promote sustainability throughout the value chain. The Sustainability Report, Forest Management Plan and Climate Transition Plan are updated annually and are available on Klabin's ESG Panel. These documents present the Company's efforts in line with its Sustainability Policy.

Eucalyptus forest, Telêmaco Borba, Paraná

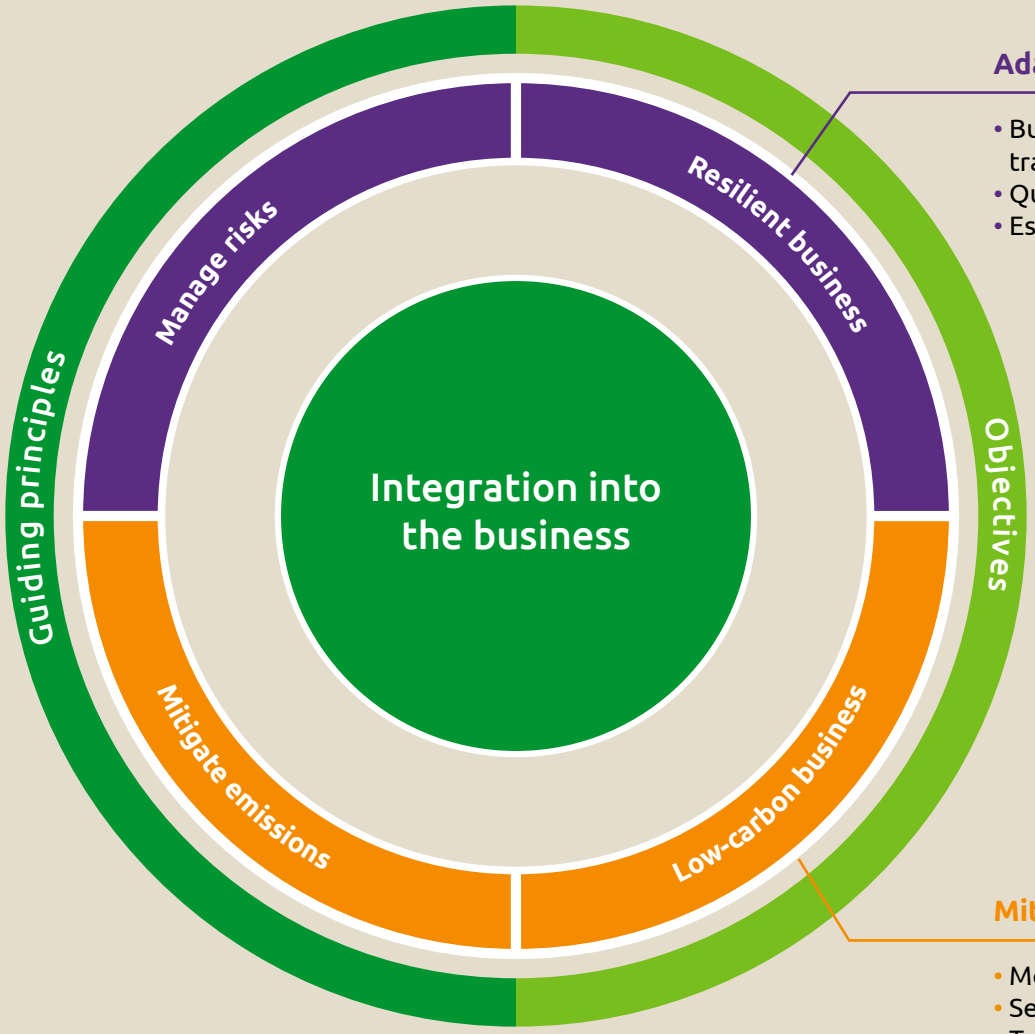
3

Climate mitigation, resilience, **and adaptation strategies**

CBPS 02 (IFRS S2): 14 a (i, ii, iii, v); 14 b; 14 c; 16 c (i, ii); 22 a (iii3); 22 b (ii4; ii5); 29 e; 29 f (i); 36 e

Serra da Farofa Private Nature Reserve, Santa Catarina

Resilience approach



Adaptation plan

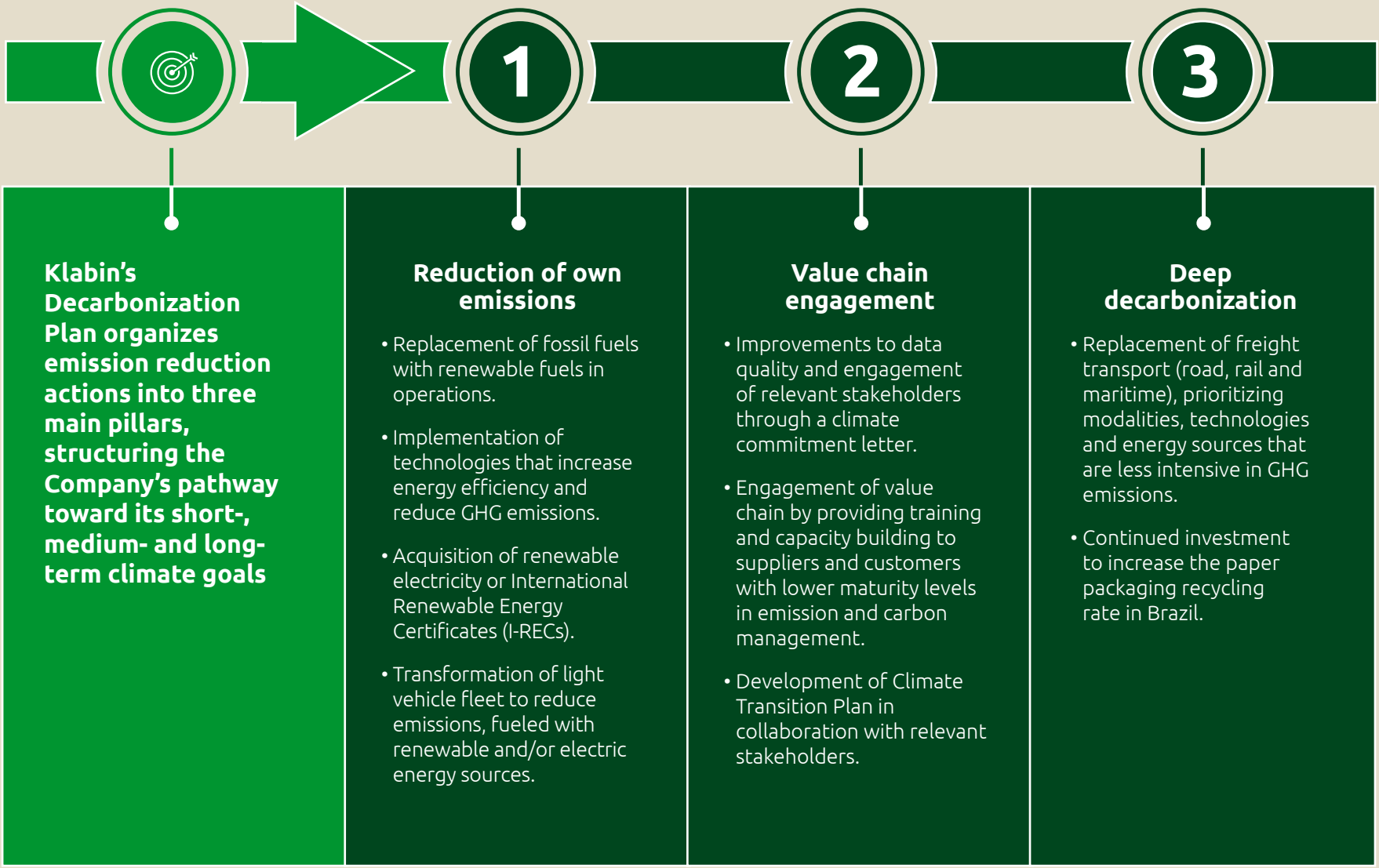
- Build physical transition and transition scenarios
- Quantify the economic impact
- Establish a climate adaptation plan

Positioning and action

Mitigation plan

- Monitoring GHG emissions
- Setting targets and metrics
- Taking action to reduce emissions
- Offsetting residual emissions
- Establishing a decarbonization plan and engaging with the value chain

Decarbonization Plan and financial planning



*Considering industrial emissions.

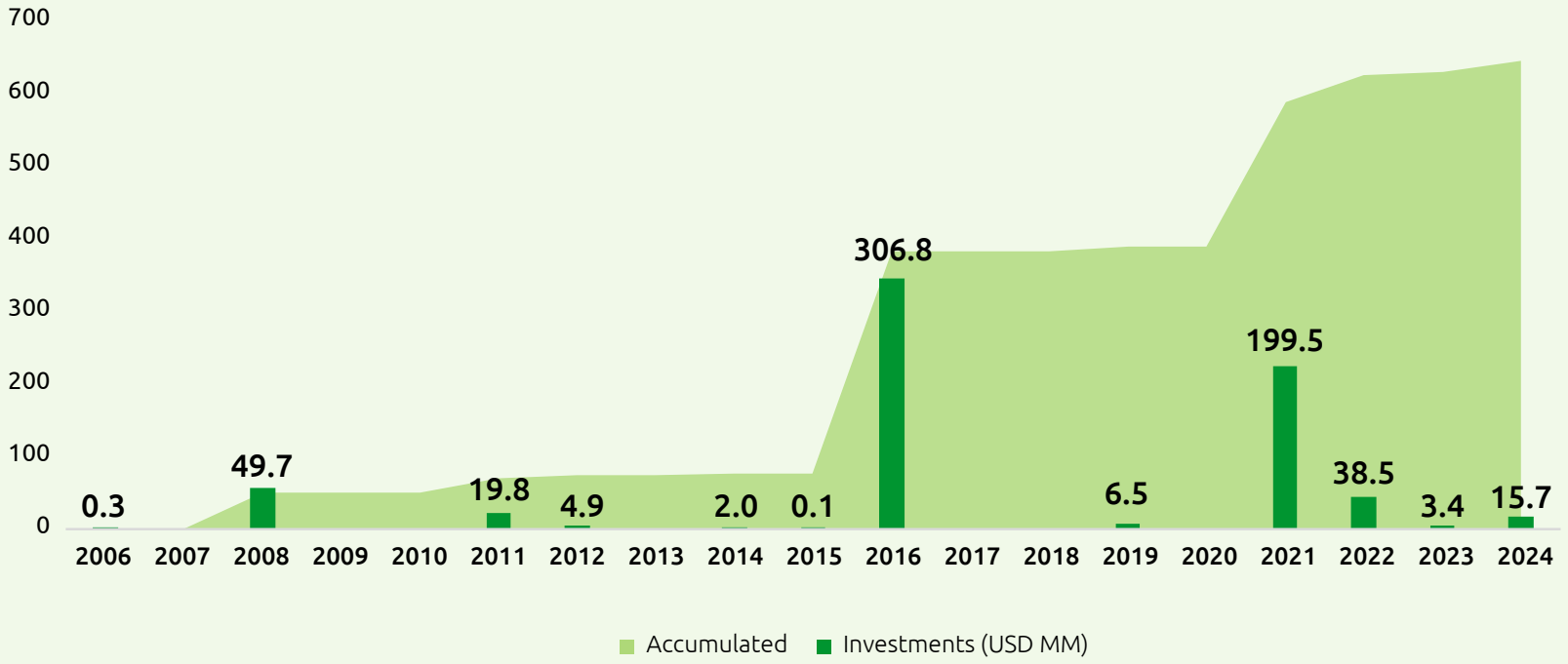
Resilience strategy and financial planning

Between 2003 and 2024, Klabin reduced 70% of its specific GHG emissions (Scopes 1 and 2), by replacing non-renewable fuels with renewable fuels, contributing to the transition to a low-carbon economy. The Company has already invested more than USD 647 million in low-carbon equipment to expand its energy supplies from renewable sources and reduce the GHG emissions.

The Company has a target of 92% renewable sources in its energy matrix, contributing to the reduction of GHG emissions. The current result for this indicator is 93% renewable sources in its matrix.

For further information on energy use, click here.

Investments in low-carbon technologies



Internal carbon price

The Company adopts an internal carbon price, which is considered in the feasibility analyses of projects with the potential for reducing GHG emissions. The shadow price is USD 15/tCO_2eq.

To increase the accuracy of project impact assessments, Klabin has developed a marginal abatement cost curve (MACC), which estimates the potential for reducing GHG emissions in tCO_2eq and the cost or revenue in BRL/tCO_2eq for each analyzed project.

Each bar on the MACC curve represents a measure of GHG abatement. The width of the bar indicates the potential for emission reduction (in tCO_2eq), and the height indicates the marginal cost (in BRL/tCO_2eq) of implementing the measure.

- **Bars below the zero line:** represent measures with a negative cost, i.e., they generate savings while reducing emissions.
- **Bars above the zero line:** indicate actions with a positive cost, which require additional investment for implementation.

The internal carbon price used by Klabin is USD 15/tCO_2eq.

Since 2020, the Company has implemented an internal carbon price, used in feasibility analyses of projects with the potential to reduce GHG emissions. This practice allows alignment with regulatory guidelines and enables the assessment of climate risks, investment decisions and the transition to a low-carbon economy.

Internal carbon pricing is part of the Company's resilience strategy, anticipating possible carbon regulation in Brazil.

Based on prioritization analysis, three major projects were carried out between 2020 and 2022, involving the biomass boiler at the Piracicaba mill and the tall oil and biomass gasification plants at the Puma Mill.

Together, these projects have been responsible for reducing the Company's annual emissions by more than 150,000 tCO_2eq.

Furthermore, the modernization project in Monte Alegre, which entails installing a new recovery boiler (Recovery Boiler 3), is ongoing and has the potential to reduce GHG emissions by around 17,000 tCO_2eq.

The internal price of USD 15/tCO2eq was established using the “How-to guide to corporate internal carbon pricing”, from CDP, considering external resources, scientific guidelines, sector benchmarking and regulatory scenario assessments, particularly taking into account initial price expectations for Brazil’s regulated market.

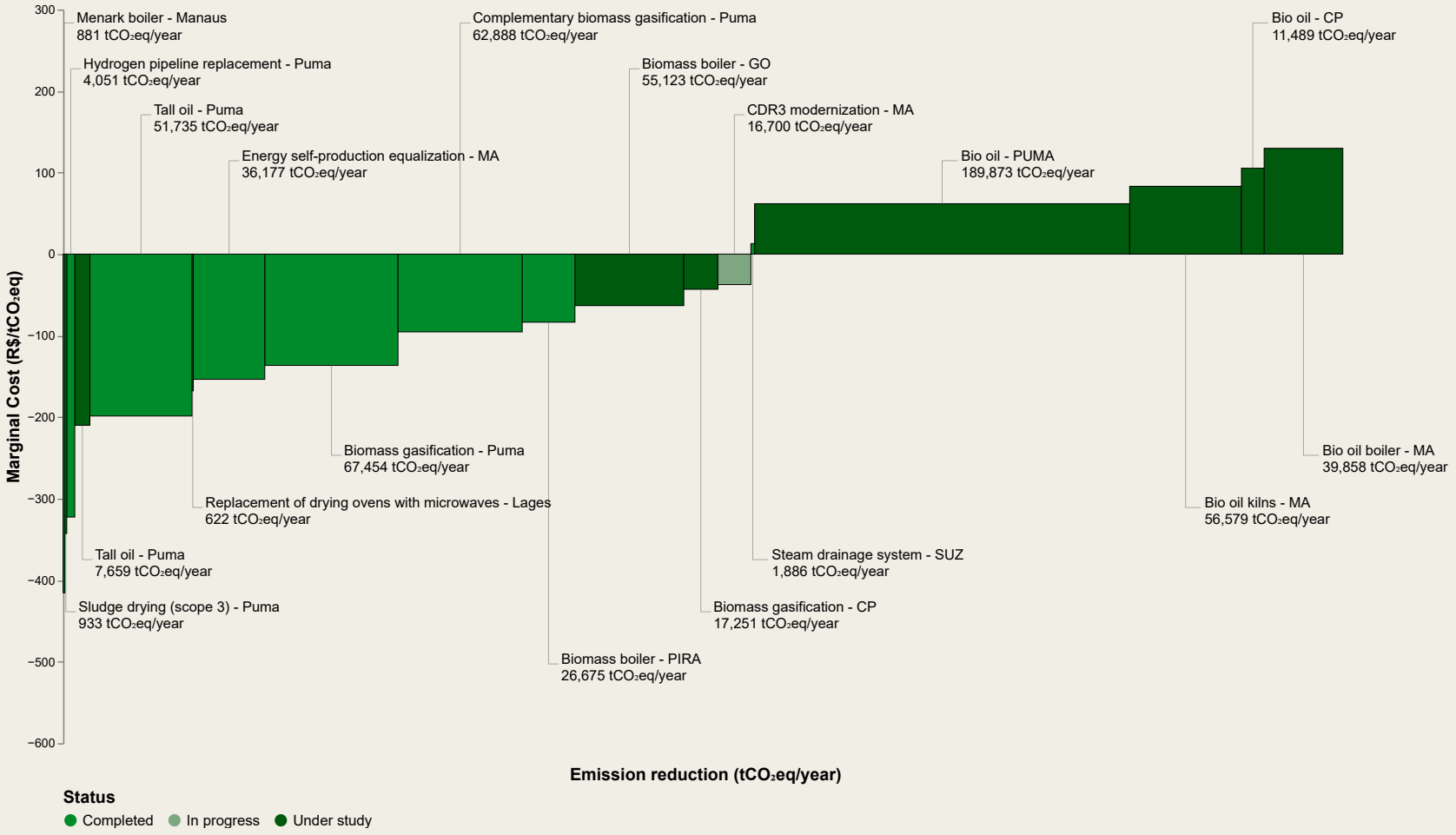
The approach adopted is shadow pricing with a hypothetical cost that allows for the analysis of risks and opportunities, with periodic updates according to the development of public policies and market signals.

Carbon pricing is applied to the following scopes:

- **Scopes 1 and 2:** applicable to Capex decisions.
- **Scope 3:** applicable to logistics, especially in categories 4 (upstream transportation) and 9 (downstream transportation).

Klabin Ecological Park, Telêmaco Borba, Paraná

MACC Curve


Menark boiler - Manaus
881 tCO₂eq/year
Hydrogen pipeline replacement - Puma
4,051 tCO₂eq/year
Tall oil - Puma
51,735 tCO₂eq/year
Energy self-production equalization - MA
36,177 tCO₂eq/year
Complementary biomass gasification - Puma
62,888 tCO₂eq/year
Biomass boiler - GO
55,123 tCO₂eq/year
CDR3 modernization - MA
16,700 tCO₂eq/year
Bio oil - PUMA
189,873 tCO₂eq/year
Bio oil - CP
11,489 tCO₂eq/year
Bio oil boiler - MA
39,858 tCO₂eq/year
Bio oil kilns - MA
56,579 tCO₂eq/year
Biomass gasification - Puma
67,454 tCO₂eq/year
Replacement of drying ovens with microwaves - Lages
622 tCO₂eq/year
Tall oil - Puma
7,659 tCO₂eq/year
Sludge drying (scope 3) - Puma
933 tCO₂eq/year
Biomass boiler - PIRA
26,675 tCO₂eq/year
Steam drainage system - SUZ
1,886 tCO₂eq/year
Biomass gasification - CP
17,251 tCO₂eq/year
Marginal Cost (R$/tCO₂eq)
300
200
100
0
−100
−200
−300
−400
−500
−600
Emission reduction (tCO₂eq/year)
Status
Completed
In progress
Under study

Decarbonization Plan and financial planning

Decarbonization initiatives

2008

Biomass boiler
Mill: Monte Alegre
Objective:
replacement of fuel oil with biomass in the boiler

Annual emission reduction:
60,000 tCO_2eq

2011

Biomass boiler
Mill: Otacílio Costa
Objective:
replacement of fuel oil with biomass in the boiler

Annual emission reduction: 11,000 tCO_2eq

2014

Natural gas boiler
Mill: São Leopoldo
Objective:
replacement of fuel oil with natural gas in the boiler

Annual emission reduction: 1,274 tCO_2eq

Natural gas boiler
Mill: Jundiaí TP
Objective:
replacement of fuel oil with natural gas in the boiler

Annual emission reduction: 1,637 tCO_2eq

Biomass boiler
Mill: Correia Pinto
Objective:
replacement of fuel oil with biomass in the boiler

Annual emission reduction: 16,000 tCO_2eq

Use of pitch in lime kilns
Mills: Otacílio Costa and Correia Pinto
Objective: producing pitch to reduce fuel oil consumption in the lime kilns

Annual emission reduction: 44,000 tCO_2eq

2015

Biomass boiler
Mill: Angatuba
Objective:
replacement of fuel oil with biomass in the boiler

Annual emission reduction: 41,000 tCO_2eq

2016

Natural gas boiler
Mill: Itajaí
Objective:
replacement of fuel oil with natural gas in the boiler

Annual emission reduction: 1,900 tCO_2eq

Ortigueira startup
Mill: Ortigueira
Start of operations at the unit, with more than 90% of its energy supplies coming from renewable sources and self-sufficient in terms of electricity

2019

Tall oil plant
Mill: Puma
Objective: producing tall oil to use in lime kilns

Annual emission reduction: 51,735 tCO_2eq

Renewable Energy Certificates
Issuance and trading of International Renewable Energy Certificates (I-RECs) from energy generation at Puma mill

2021

Biomass boiler
Mill: Piracicaba
Objective: replacement of fuel oil with biomass in the boiler

Annual emission reduction: 26,500 tCO_2eq

2022

Biomass gasification plant
Mill: Puma
Objective: replacement of fuel oil with syngas in the lime kiln

Annual emission reduction: 67,000 tCO_2eq

2024/2025

Modernization of Monte Alegre Mill (Recovery Boiler 3)
Mill: Monte Alegre
Objective: reducing the usage of liquefied petroleum gas in Recovery Boiler 3

Potential annual emission reduction: 16,700 tCO_2eq

Menark boiler
Mill: Manaus
Objective: replacement of fuel oil with natural gas in the boiler

Potential annual emission reduction: 880 tCO_2eq

Self-generation model through Wind Farm Investment
Mill: Monte Alegre
Objective: wind energy production through net metering

Potential annual emission reduction: 36,176 tCO_2eq*


Serra da Farofa Private Nature Reserve, Santa Catarina

*Emissions from electricity purchases, which were already decarbonized (market-based approach) through the acquisition of International Renewable Energy Certificates (I-RECs).

Tree nursery, Telêmaco Borba, Paraná

37% of the Company's debt are tied to ESG performance

Sustainable finance strategy

Resource allocation and ESG performance are integrated into financial planning, ensuring alignment between the sustainability roadmap and corporate strategy. The instruments currently in place are structured as follows.

Financial Instrument	Green Bond	Sustainability-linked Bond	Revolving Credit Facility (RCF)	IFC/IDB Loan
Total value (USD MM)	1,200	500	500	800
Proven value (USD MM)	1,179	Performance-based	Performance-based	Performance-based
Maturity (year)	2027 and 2049	2030	2026	2032
Linked Klabin Sustainable Development Goal	Use of resources	1. Biodiversity 2. Water consumption 3. Waste	Waste	Biodiversity

To learn more, click here.

Sustainability-linked Bond

Klabin priced a USD 500 million issuance of senior unsecured notes, linked to sustainability performance goals with a final maturity of 2030, with 2025 as the trigger for pricing the next interest rate. The Key Performance Indicators (KPIs) are aligned with three of the Klabin Sustainable Development Goals (KODS), which are integrated with the Company's growth plan. These bonds are subject to coupon (interest) readjustments depending on whether the targets set for 2025 are reached, as defined by the Sustainability Performance Trigger (SPT).

Water, waste and biodiversity

The goals selected by Klabin in this operation – focusing on water, waste and biodiversity – demonstrate the ambition to enhance the resilience and efficiency of its model for resource extraction, processing, reuse and regeneration. The Company's influence over these topics directly impacts its cost-effectiveness, its ability to maintain constructive relationships with society and ultimately the capacity of the ecosystem it is a part of to respond positively to productivity-enhancing measures, across both forestry and industrial operations.

Monte Alegre Unit, Telêmaco Borba, Paraná

Value chain engagement

Background

Following the materiality study of Scope 3 categories, in 2022 Klabin launched its **Value Chain Engagement Program**, focusing on the development of its key suppliers and customers in terms of GHG emissions.

In 2024, the Value Chain Engagement Program featured:

Suppliers of chemical products and fuels; **62**

32 **Suppliers of road, rail and maritime transportation services;**

Customers. **91**

After the program was structured, six training workshops were held in 2024 for suppliers with maturity levels classified as "Insufficient," "Beginner" or "Intermediate".

More than 80% of those invited took part in the workshop sessions

Regarding its customers, **91 significant partners** were evaluated, selected based on the representativeness of the emissions associated with the marketed products. The Company maintains an ongoing agenda of dialogue and collaboration with these customers, focusing on collection of primary data, information exchange and joint development of projects aimed at reducing emissions.

Phytotherapy, Telêmaco Borba, Paraná

KLABIN TRANSFORMA
CADEIA DE VALOR

Reinforcing the Company's commitment to decarbonization in the value chain, in 2025 the engagement program was renamed "**Klabin Transforma – Cadeia de Valor**" ("Klabin Transforms – Value Chain"), becoming part of the broader "Klabin **Transforma**" initiatives, while emphasizing the capacity building of partners relevant in terms of emissions.

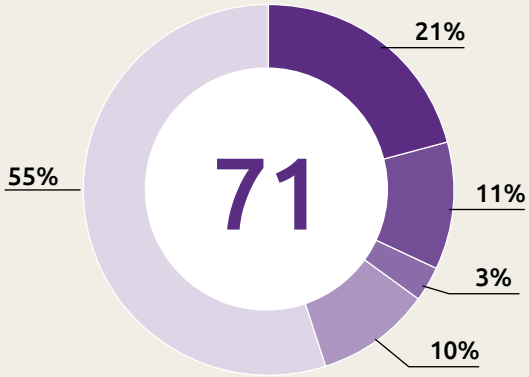
Tree nursery, Telêmaco Borba, Paraná

2025 Overview

Suppliers

Category 1 and 3

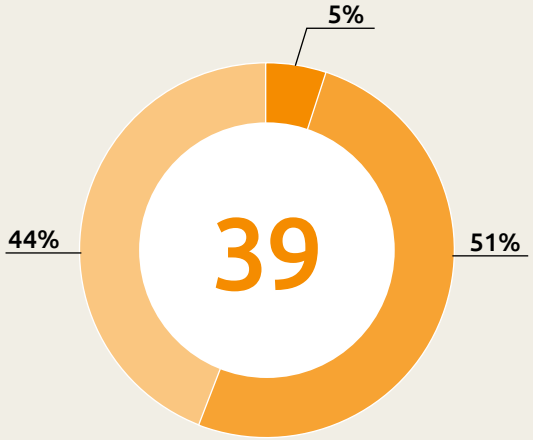
(Purchased Goods and Services) and Category 3 (Fuel- and Energy-Related Activities)



- Fuels
- Wood
- Paper
- Forestry chemicals
- Industrial chemicals

Category 4

(Upstream Transportation and Distribution)

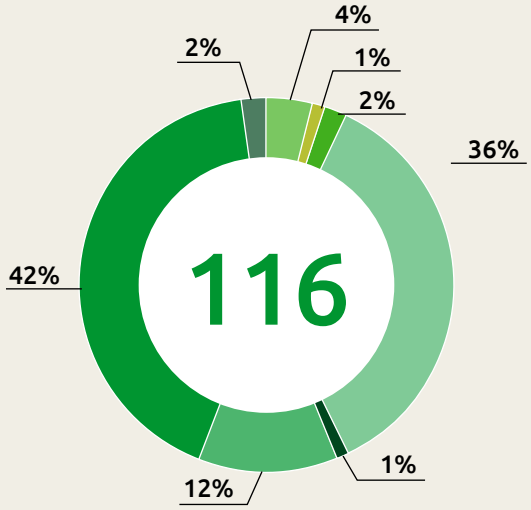


- Rail
- Road
- Maritime

Customers

Category 10

(Processing of Sold Products)



- Paperboard
- Kraft Paper
- Liquid Packaging Board (LPB)
- Fluff Tissue
- Hardwood Kraft
- Hardwood Specialty Paper
- Hardwood Tissue
- Softwood Specialty Paper

Structure of Value Chain Engagement Program

KLABIN TRANSFORMA CADEIA DE VALOR

1

Prioritization

Prioritization based on carbon footprint studies and Life Cycle Assessment (LCA), focusing on suppliers, carriers and customers that account for 90% of Scope 3 emissions, with data sourced from secondary sources.

2

Evaluation

Annual assessment of key suppliers and segregation according to their GHG emissions management performance.

3

Commitment

Request suppliers that are relevant in GHG emissions to sign a climate commitment letter.

4

Training

Participation of relevant suppliers in the Klabin Knowledge Trail, an educational program focused on climate change issues and emissions management.

5

Follow-up

Follow-up on regular basis of suppliers for the collection of primary data and creation and development of an improvement plan.

Paper machine, Monte Alegre Mill, Telêmaco Borba, Paraná

Stage 1 – Prioritization

Prioritization was based on carbon footprint studies and Life Cycle Assessments to identify the chemical products and inputs most intensive in terms of GHG emissions. This enabled the identification of the main suppliers eligible for the program.

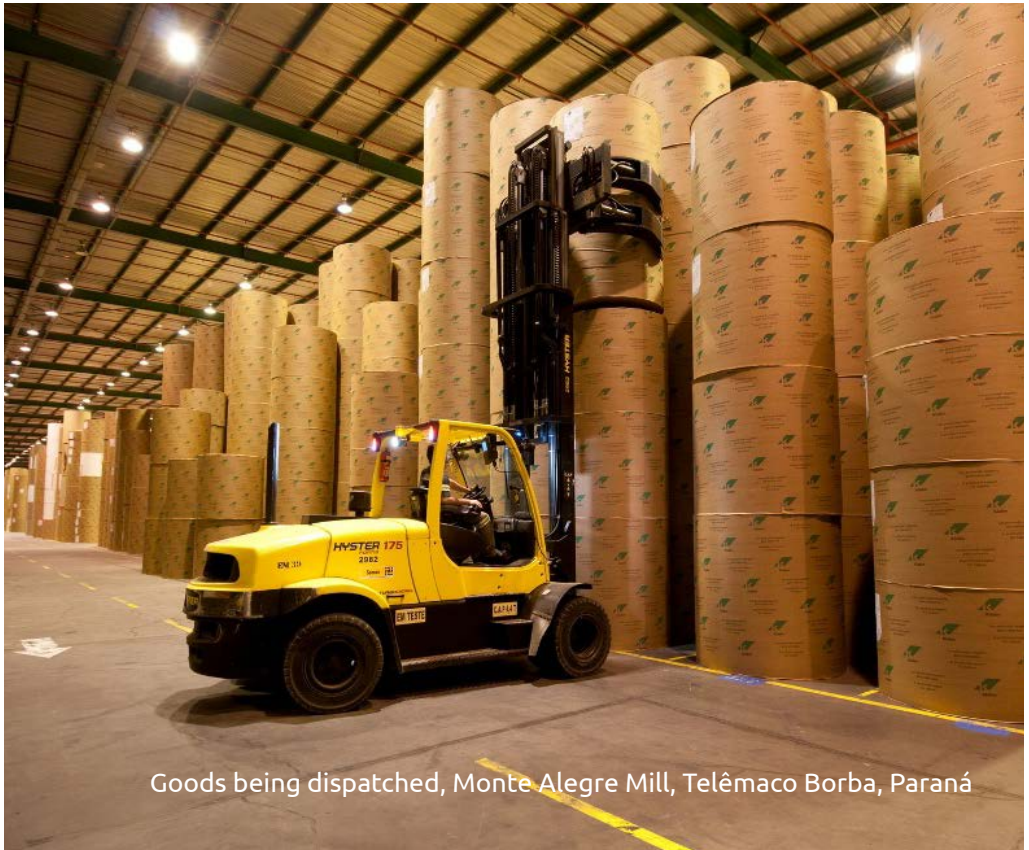
In this context, and considering that 80% of total Scope 3 emissions come from supplier activities (categories 1 and 3), carriers (categories 4 and 9) and customers (category 10), the Company prioritized and included the following stakeholders in the program in 2025:

71
fuels and chemical products suppliers

39
road, rail and maritime carrier suppliers

116
customers

Since 2022, 100% of the data used to calculate Scope 3 emissions comes from secondary sources (Ecoinvent). The Company recognizes that, before replacing these with primary emission factors from suppliers and customers, it is necessary to ensure that the data are audited and third-party verified.



Goods being dispatched, Monte Alegre Mill, Telêmaco Borba, Paraná

Stage 2 – Evaluation

This stage measures suppliers' maturity in terms of carbon management and GHG emissions. In 2024, 79 suppliers identified by the Ecovadis platform were evaluated.

The Company has been expanding its engagement with partners and, for the upcoming cycles, has developed a maturity assessment process, which considers aspects such as the preparation of a GHG emissions inventory and third-party verification, development of a Product Carbon Footprint, development of a climate transition plan, as well as other relevant aspects for the maturity of suppliers' climate change management systems. The new process will be integrated into internal partner management systems, focusing on centralizing the journey for stakeholders and broadening the scope of participants in the program. The Company has sought to evolve its climate change approach since establishing partnerships with its suppliers.

KLABIN TRANSFORMA CADEIA DE VALOR

Stage 3 – Commitment

In December 2023, Klabin has requested its suppliers to sign a Climate Commitment Letter, according to each maturity level. The goal is to promote commitment, engagement and development of key partners in the climate journey. Some of the actions are listed below.

Stage 4 – Training

Training pathways

March 24

Workshop 1 (for "Insufficient" and "Beginner" suppliers):
First session of the supplier training workshop on the use of the GHG Protocol tool to develop their GHG inventories.

April 24

Workshop 2 (for "Insufficient" and "Beginner" suppliers):
The second part of the workshop comprised a case study of a fictious company, in which participants applied the calculation of Scope 1, 2 and 3 emissions.

May 24

Extra session:
In response to supplier requests, an additional Q&A session was held to address questions related to the previously conducted inventory.

July and August 24

Extra sessions:
Two additional workshop sessions were held. The first session, in July, covered introductory content on GHG inventories.

September 24

Workshop for Intermediate maturity level suppliers:
Workshop held for Group 2 (Intermediate) addressing science-based targets for emissions reduction and the key elements of a Climate Transition Plan, including emissions assessment, clear targets, and implementation strategies.

Overall Participation:

85% of invited suppliers engaged

The training program involves educating key suppliers on climate agenda topics, such as GHG inventory preparation, climate transition plans, and development of internal or science-based targets. In 2024, the Company recorded 85% participation in the workshops held.

In 2025, the Company will continue the training agenda with a new workshop structure designed to enhance engagement and knowledge sharing. The sessions will feature internal and external specialists and adopt a more practical approach, including case studies, recognition of best practices among participating companies, and identification of opportunities for the joint development of solutions.

Paper Machine 28, Ortigueira Unit, Paraná

Stage 5 – Follow-up

KLABIN TRANSFORMA CADEIA DE VALOR

The follow-up stage involves tracking each supplier's performance and progress toward their targets. The stage is key for the collection of primary emission factors, validated by an independent third party, which allows for the updating of secondary factors used to calculate Scope 3 emissions.

This stage consists of engaging with suppliers and working collaboratively to ensure that each follows the steps of:

- **Consolidation or expansion of GHG inventory, using the Brazilian GHG Protocol Program (FGV) tool.**
- **Increased inventory granularity:**
  - **By mill.**
  - **By product.**
  - **Development of carbon footprint.**
- **Third-party verification by an accredited company to ensure data reliability.**
- **Benchmarking projects (Net-Zero initiatives and emissions reduction programs).**

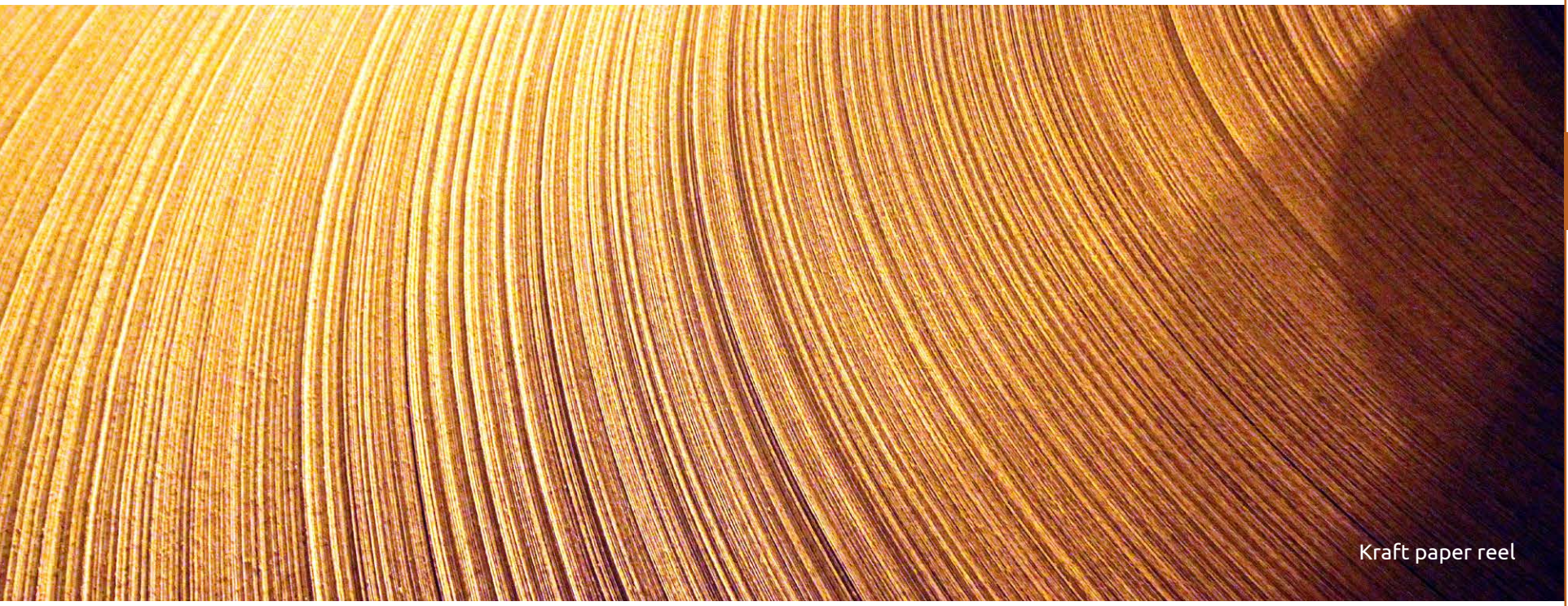
The follow-up stage emphasizes each supplier's results and progress toward the targets.

Results of Klabin Transforma – Cadeia de Valor Program*

94%
of eligible suppliers assessed for their climate performance.

86%
of relevant GHG suppliers have signed the Climate Commitment Letter

Six training sessions held with suppliers, with participation rates above
80%



Kraft paper reel

*Information updated as of December 2024.

Carbon offsetting and removal strategy

To achieve the NetZero target by 2050, the Company considers in its strategy the use of offsets for residual emissions (<10%) or in case of promotion of a carbon-neutral product and/or installation.

The approaches include removal technologies – such as reforestation and restoration – and carbon capture, as well as nature-based solutions. The initiatives comply with the criteria and guidelines of international standards, demonstrating proper quality of carbon credit.

Lago Harmonia Clube, a recreational club in Telêmaco Borba, Paraná

Climate resilience and adaptation strategy

Industrial strategy

Klabin generates internally more than 74% (2024) of the electricity consumed at its units, being minimally susceptible to short-term changes in tariffs. It also has long-term contracts with the generators and traders of the resource, which helps minimize the impacts of any potential tariff increases on its operations.

Since 2022, Klabin's Energy Committee has been part of its management system. Composed of a multidisciplinary team from Sustainability, Innovation, R&D, Energy, and other areas, the Committee's objective is to strategically develop innovative measures and identify opportunities to advance in the topic, thereby improving internal results and indicators.

Klabin adopts a weekly evaluation procedure for all proposed projects and investments. This process aims to identify and analyze the potential for reducing GHG emissions and water use. The results are incorporated into the Company's internal carbon and water pricing mechanism, as well as into its Marginal Abatement Cost Curves (MACC).

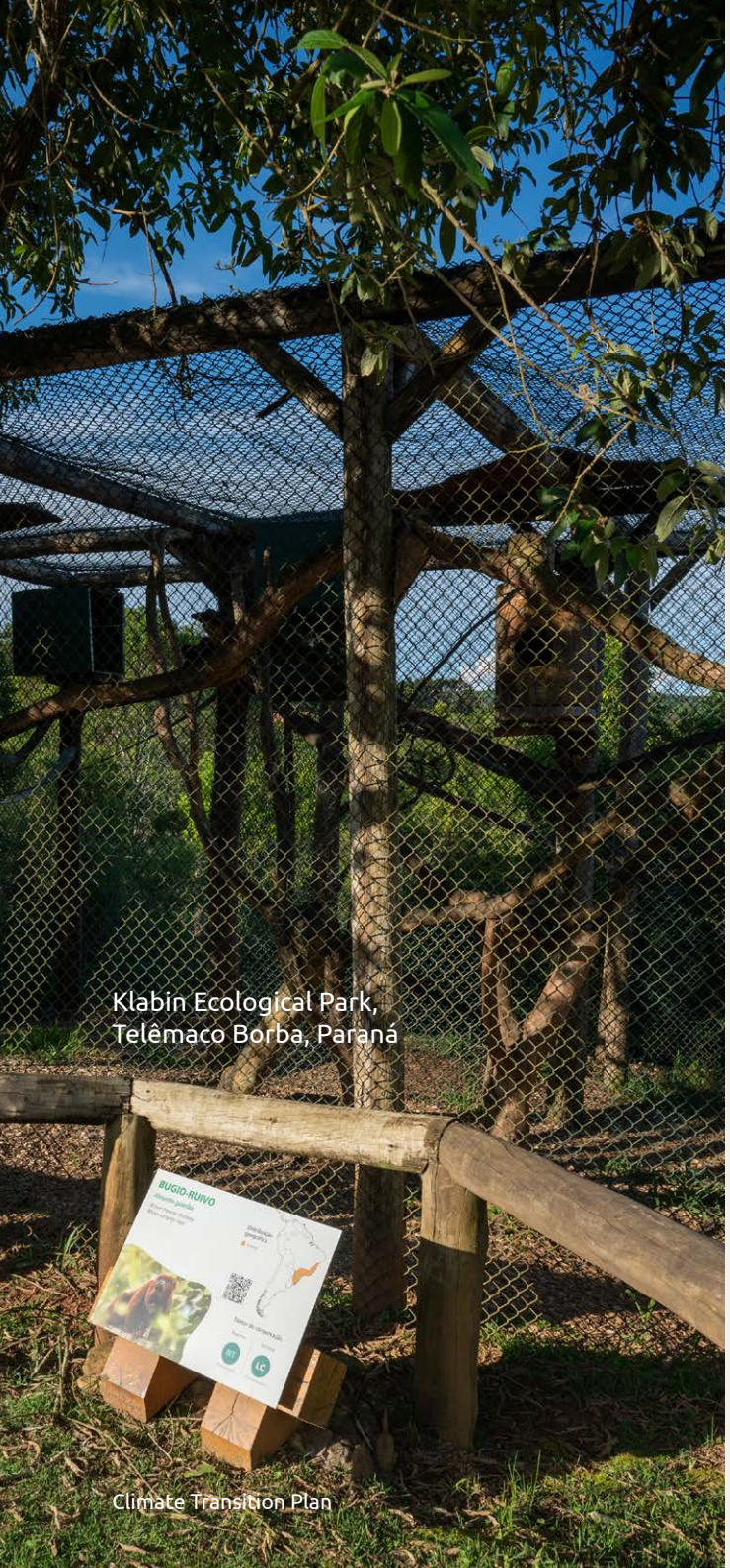
Monthly critical analyses of environmental indicators are conducted with all industrial units, enabling the identification of opportunities and implementation of resource optimization actions based on previously established targets.

Monthly tracking of reservoir levels and the country's thermal generation volumes, assessing potential medium-term impacts.

Investment in the installation of recovery liquor and biomass boilers at the Ortigueira mill, making it self-sufficient in electricity generation and able to supply surplus energy to the Brazilian market. The Company is evaluating new projects to expand its own power generation and replace conventional sources with low-carbon technologies.

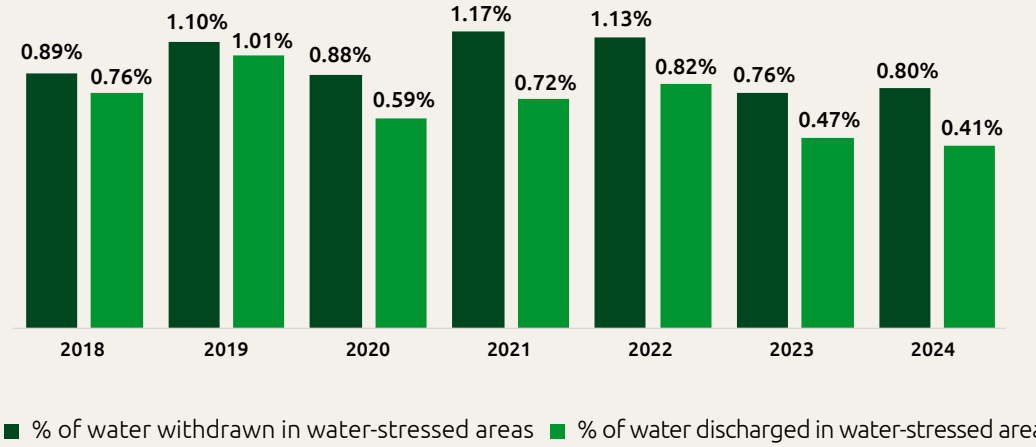
Monitoring by the Sustainability area of units located in water-stressed regions, with ongoing updates based on the Aqueduct Water Risk Atlas tool from the World Resources Institute (WRI).

Integration of the Klabin Transforma – Value Chain program with key suppliers on both climate change and water resources management topics, using a centralized approach.

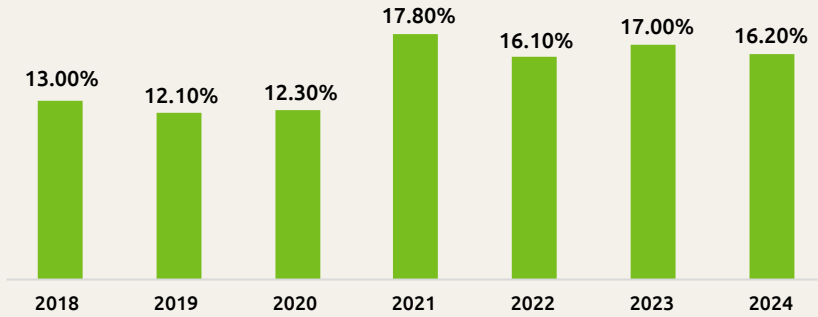


Klabin Ecological Park,
Telêmaco Borba, Paraná

Percentage of Klabin's total water withdrawal and discharge occurring in water-stressed areas



Percentage of revenue corresponding to plants located in areas of water stress



Forestry strategy

Klabin's forestry strategy for climate-related risks and opportunities involves research and development, firefighting, silviculture and forest management.

Research and development

- Klabin's Forestry Research Area conducts research and development activities to develop forestry solutions to mitigate the impacts of climate change. This work encompasses fields such as biotechnology, genetic improvement, phytosanitary defense and forest management, to develop pine and eucalyptus clones with a focus on increasing forest productivity and species resistance.

- The Company develops and assesses climate scenarios based on geographic modeling of the environment, considering the impact of changes on planted forest and recommendations for measures in case of adverse effects.

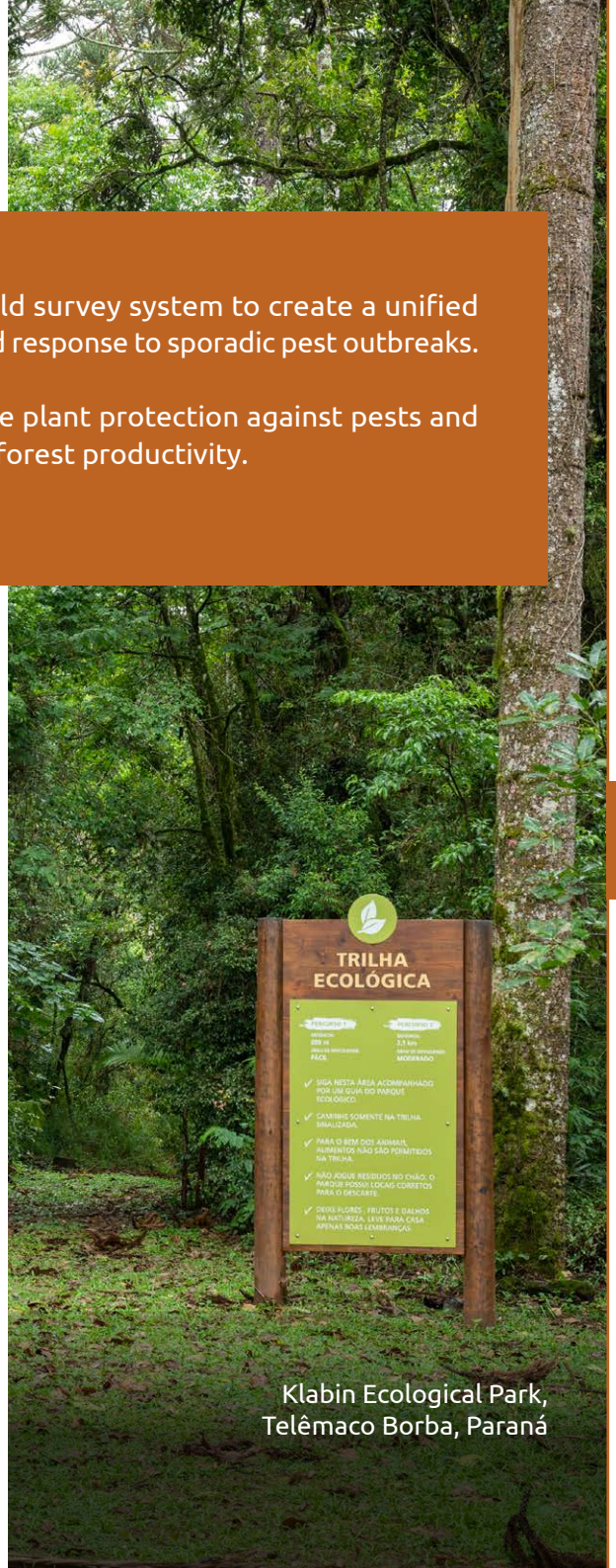
- In 2021, several projects were initiated to address seasonal and regional fluctuations in pest populations, aiming to develop occurrence indicators for each forest pest.

Klabin is investing in a centralized field survey system to create a unified database of occurrences, enabling rapid response to sporadic pest outbreaks.

Research is being conducted to ensure plant protection against pests and diseases with the potential to reduce forest productivity.

For the coming years, Klabin is investing in the development of natural enemies in laboratory, with large-scale release at strategic points within the forestry operations. Research projects are also being conducted to identify additional potential control methods, such as microbiological and macrobiological agents, chemical components, or genetic resistance. The Company plans to expand forest monitoring across its entire base, including an increase in the number of weather stations.

Currently, field survey indicators associated with the occurrence of forest pests are monitored by different bases.



Klabin Ecological Park, Telêmaco Borba, Paraná

Fighting forest fires

Klabin has a Forest Fire Prevention and Control Program that features trained firefighters and investments in firefighting equipment, such as water trucks and helicopters. The program also entails improving the Company's control tower system, including through a digital system for automatic fire detection and satellite alerts.

Forestry

Klabin's Planting Plan includes a tactical silviculture planning process that indicates, based on availability, limiting elements, and restrictions, the ideal species to be planted in each plot and month of the year. To mitigate possible frost damage, the Company has developed restrictions on species suitable for planting in higher-risk areas, selecting those most resistant to frost impacts. As a preventive measure, Klabin does not plant eucalyptus in cold areas during the most critical period of the year (April to August).

Hydrossolidary management

In its forestlands, Klabin operates under the concept of "hydrossolidary management" – a model that seeks to balance forest production and water availability. This approach integrates different needs, including those of neighboring communities and ecological processes. The management process begins in forest planning, considering micro-watersheds and the water intake points of neighbors as planning units. Currently, 96.3% of Klabin's forest operations follow this model, with the goal of implementing it across 100% of operations.

Following the 2023 update to the TCFD study, new adaptation actions were identified and will be implemented over the next five years to mitigate the impacts of climate change on Klabin's business. Some of the ongoing initiatives are listed below:

- Monitoring and tracking the impact of extreme weather events on assets.
- Development and implementation of a Water Conservation Plan in industrial and forestry units and throughout the value chain.
- Development and execution of a Resource Usage and Circularity Plan, including actions to mitigation and adaptation to climate change in operations and across the value chain.

Tree nursery, Telêmaco Borba, Paraná

4

Management of climate-related **risks and opportunities**

CBPS 02 (IFRS S2): 9 a; 9 b; 9 e; 10 a; 10 b; 10 c; 10 d; 22 a (i, ii, iii1); 22 b (i1, i2 i3, i4, i5, i6, i7, ii1, ii2, ii3); 25 a (i, ii, iii, iv, v, vi); 25 b; 25 c

Saffron finch, Telêmaco Borba, Paraná

Risk identification and management

Klabin's Risk Management Policy, approved by the Board of Directors, ensures the alignment between the Company's strategic goals and structure, with market best practices.

The risk management process is divided into five stages:

1 Risk identification and understanding of their characteristics

Risks are identified through the analysis of data, transactions, systems, business scenarios, operational and market conditions, discussions with technical teams, and other factors with potential material impact on the Company.

2 Classification according to the origin of events

Once identified, risks are classified based on their origin – internal or external, operational, financial, regulatory, climate-related, social and environmental, among others. This classification aims to facilitate prioritization and determine the most appropriate approaches for managing each type of risk.

3 Assessment of risk criticality, considering impact and vulnerability

Risks are evaluated based on two aspects: potential impact and vulnerability, to determine their criticality level. The results are incorporated into Klabin's Risk matrix.

4 Definition of risk treatment, including the development of action plans

Approaches for addressing risks are defined, seeking whenever possible, to mitigate or reduce exposure. Risk treatment may involve the development and implementation of action plans by the respective operational areas and/or relevant management teams and executive directors.

5 Risk monitoring and periodic review of action plans

Risks are continuously monitored, with periodic reviews of defined action plans to ensure the effectiveness of the measures adopted. Risks classified as critical or high are prioritized for systematic follow-up.

Rufous hornero, Telêmaco Borba, Paraná

The governance of this process is carried out through a robust structure. The Risk Committee, with a multidisciplinary composition, supports the Executive Board in evaluating prioritized risks, which are then presented to the Audit Committee and the Board of Directors. Additionally, the Sustainability Committee monitors climate-related risks reinforcing the integration of this topic into corporate governance.

Climate risk management processes

Identification, assessment and monitoring of the Company's risks and impacts

According to the Risk Management Policy, risks are classified into five categories: strategic, financial, operational, regulatory, and socio-environmental.

The identification of potential risks follows a specific procedure coordinated by the Risk Management department, with the participation of the Executive Board, business managers, and corporate areas. The process starts with meetings with employees with technical knowledge in their areas of expertise to define the aspects to be monitored, in addition to the assessment of internal documentation, scenarios, and, if necessary, external evaluations.

Identified potential risks are evaluated in terms of their impact and vulnerability, based on the methodology for determining criticality. Each risk is included into the risk map, which determines its classification for appropriate treatment. The criticality level can be low, medium, high and critical. In conjunction with the business areas, the Risk Management department develops and monitors action plans and/or the inclusion of other risks.

For more information and updates regarding aspects related to integrated risk management, please visit the ESG Panel page on the material topic Risk Management.

Klabin Ecological Park, Telêmaco Borba, Paraná

Climate scenario analysis

Klabin uses climate scenario analysis as a strategic tool to assess the potential impacts of climate change on its operations and value chain. The Company relies on scenarios developed by the Intergovernmental Panel on Climate Change (IPCC)[1] and the International Energy Agency (IEA)[2], which provide climate and macroeconomic projections, illustrating how the world may be impacted in the coming decades, depending on GHG emission levels, energy use and climate policies.

For the Company, these scenarios serve as a basis for identifying, assessing and pricing climate-related risks and opportunities that may affect its forestry operations, industrial activities, and value chain. The scenarios used by the Company are presented in the table and charts alongside:

1. Intergovernmental Panel on Climate Change (IPCC): develops scenarios that illustrate different pathways for the global climate, including potential temperature increases, extreme events, and environmental impacts. These scenarios support the assessment of the physical risks related to climate change and are based on the RCP SSP1-2.6 (transition scenario) and RCP SSP3-7.0 (delayed climate action scenario) frameworks.

2. International Energy Agency (IEA): creates scenarios focused on the energy sector, analyzing how fuel use, clean technologies and public policies may affect emissions and the global economy. These scenarios are used to assess transition risks related to technological, regulatory, and market changes, based on the APS (Announced Pledges Scenario) and NZE 2050 (Net-Zero Emissions by 2050) scenarios.

Physical risks

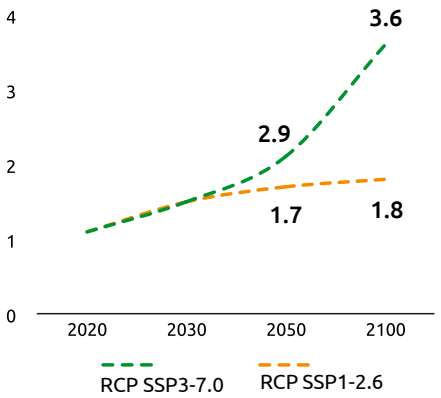
RCP SSP3-7.0

- Represents a pathway with continued rise in greenhouse gas (GHG) emissions throughout the 21st century, driven by limited climate policies and high regional competition.
- Global average temperature increases by approximately 2.1°C by 2060 and reaches around 3.6°C by 2100.
- Higher exposure to physical climate risks, including more frequent extreme events, is expected.

RCP SSP1-2.6

- Reflects strong international cooperation, implementation of climate policies, and widespread adoption of low-carbon technologies. Achieves CO_2 neutrality between 2070 and 2080.
- Keeps the global average temperature increase limited to about 1.7°C by 2060 and 1.8°C by 2100.
- Aligns with the Paris Agreement, maintaining global warming well below 2°C.

Temperature increase |°C|



Transition risks

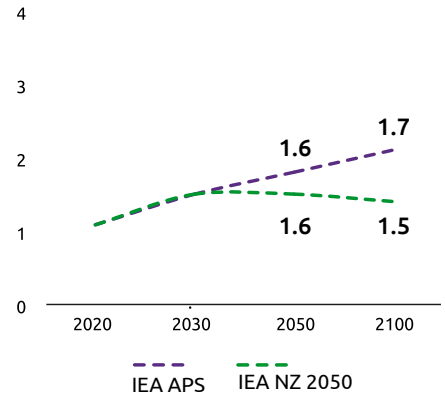
Announced Pledges Scenario (IEA APS)

- Ensures that all climate commitments made by governments worldwide (NDCs) are fully met within the promised timeframes.
- Represents the likely trajectory of GHG concentrations in the atmosphere and the associated socioeconomic pathway.
- Paris Agreement is not fully achieved, with global average temperature rise reaching 1.7°C.

Net-Zero Emissions by 2050 Scenario (IEA NZE 2050)

- Very low GHG emissions pathway, achieving net-zero CO_2 emissions by 2050.
- Paris Agreement is met, keeping the global average temperature rise below 1.5°C through 2100.

Temperature increase |°C|



SSP: Shared Socioeconomic Pathways

In addition to climate scenarios, Klabin considers additional assumptions to estimate potential financial impacts, such as market trends, changes in consumers' behavior and macroeconomic variables. The financial quantification of risks and opportunities is performed internally and will be reported in accordance with international disclosure standards, such as IFRS S2. The risk assessments take into account scenarios with short-term (2030) and long-term (2050) impact horizons.

Klabin Ecological Park, Telêmaco Borba, Paraná

Climate risk assessment

Legend

Value chain

◀ Upstream ■ Klabin operations ▶ Downstream

Time horizon

● ● ● Short-term
● ● ● Medium-term (2030)
● ● ● Long-term (2050)

Physical Risks

Occurrence	Value Chain	Description	Time Horizon	Internal Standards and Initiatives	Metrics	KRI	Unit of Measure
Reduced water availability	◀ ■ ▶	Reduced water availability, exacerbated by climate change and pressure on natural resources, poses a risk to Klabin's operations and its value chain, potentially affecting water withdrawal and sustainable use.	● ● ●	Klabin's Sustainability Policy Strategic water management	Water use (total water withdraw)	Specific water use (total water withdrawal / total production)	m^3/t produced
Forest fires	◀ ■ ▶	Forest fires are a relevant physical risk, intensified by extreme weather events, affecting forest assets and potentially impacting the wood supply chain.	● ● ●	Forest Management Plan	Hectares affected by forest fires	Hectares burned	Hectares
					Fire risk	Monte Alegre Formula[1]	(FMA)
Impact on wood supply	◀ ■ ▶	Changes in rainfall patterns and rising temperatures compromise the growth and productivity of planted forests, affecting the availability of wood and causing instability in operational planning and supplies.	● ● ●	Klabin's Sustainability Policy	Forest productivity	Average annual increase in biomass	m^3/ha/year
					Average precipitation	Precipitation	mm
Increase in national electricity tariff	◀ ■ ▶	Higher national electricity tariffs in water-stress scenarios represents an operational risk for Klabin and may impact its energy costs.	● ● ●	Klabin's Sustainability Policy	Energy cost	Usable volume of hydroelectric reservoirs	%
						Cost of MWh	R$/MWh
Slope failures	◀ ■ ▶	The instability of slopes and embankments in Klabin's operational areas represents a risk associated with climatic factors, such as soil characteristics and heavy rainfall events, which may directly impact the Company's operations.	● ● ●	Klabin's Sustainability Policy	Climate factors	Temperature	°C
						Precipitation	mm
Flooding of industrial plants	◀ ■ ▶	Klabin's mills are subject to flooding due to their proximity to water bodies and heavy rains, which could exceed the drainage capacity and cause flooding in operational areas, affecting the storage, transportation and distribution of products and inputs.	● ● ●	Klabin's Sustainability Policy	Climate factors	Precipitation	mm
Structural collapses	◀ ■ ▶	Operations are exposed to physical risks arising from roof damage. This scenario could cause physical damage to products, loss of quality, contamination or even total materials loss.	● ● ●	Klabin's Sustainability Policy	Climate factors	Average wind speed Maximum wind gust	km/h

[1] The Monte Alegre Formula (known by its Portuguese initials, FMA) is an empirical model originally developed by Klabin in the municipality of Monte Alegre, Paraná. It continues to serve as a practical tool in forest regions with tropical forest regions to estimate the daily risk of forest fires based on local meteorological variables.

Legend

Value chain

◀ Upstream ■ Klabin operations ▶ Downstream

Time horizon

● ● ● Short-term
● ● ● Medium-term (2030)
● ● ● Long-term (2050)

Transition Risks

Occurrence	Value Chain	Description	Time Horizon	Internal Standards and Initiatives	Metrics	KRI	Unit of Measure
Increased costs related to exports to countries with stricter climate regulations	■ ▶	The Company may be impacted by international regulatory changes, such as CBAM (Carbon Border Adjustment Mechanism), which impose additional costs on carbon contained in products exported to the European bloc, potentially affecting the Company's competitiveness in foreign markets.	● ● ●	Klabin's Sustainability Policy	Cost of carbon leakage to the EU	EU ETS price	Euros/tCO_2eq
						Total CO_2 exported to the EU	tCO_2eq/t exported output
Cap-and-trade carbon pricing	■	In the national context, the approval of Law 15,042 of 2024 and the future implementation of the Brazilian Emissions Trading System (SBCE) represent a regulatory risk. The SBCE foresees the creation of sectoral emission caps and the mandatory acquisition of tradable permits for GHG emissions, which may generate new legal obligations and operational costs for the Company.	● ● ●	Klabin's Sustainability Policy	Scope 1 and 2 emissions	Total emissions subject to obligations	tCO_2eq
Failure to meet climate/ESG commitments	■	Klabin considers the risk of non-compliance with voluntary commitments related to the ESG agenda. Such situation could result in reputational and financial impacts, hindering access to capital, reducing its attractiveness to investors and business partners, and potentially compromising the sustainability of the business in the medium and long term.	● ● ●	Klabin's Sustainability Policy	2030 targets	Reintroduce endangered species and strengthen threatened species	Number of species
						Zero waste sent to landfill	t
						Reduction in water consumption	m^3/t produced

Management and control measures

Klabin takes an integrated and proactive approach to mitigating its climate risks and promoting the continuity and resilience of its operations. As part of this commitment, the Company implements structured measures in different areas. Below are some examples:

Efficient management of water resources
The Company monitors water consumption at all its industrial units, conducting periodic critical analyses to identify opportunities for reducing consumption and reusing this natural resource. These initiatives aim to ensure future water availability and keep operations in balance with local river basin circumstances.

Energy diversification and efficiency
Klabin seeks to reduce its exposure to the volatility of the Brazilian electricity market by diversifying its energy supplies, expanding the use of renewable and alternative sources, and investing in self-generation. In addition, energy efficiency measures are implemented across all industrial operations, reducing costs and associated emissions.

Forestry research and development
Continuous investments in tree breeding programs, adaptive management and forestry technologies enhance the productivity and resilience of its planted forests, mitigating the impacts of climate variability on the Company's forest operations.

Forest fire prevention and control
The Company has a robust fire monitoring and firefighting system, which includes technological infrastructure, specialized operational resources and continuous training. Forest areas are monitored using long-range cameras installed on strategically positioned towers, capable of detecting plumes of smoke and triggering alerts at a control center. Once a hotspot is confirmed, trained teams are immediately mobilized to get it under control. This system is supported by an aircraft capable of transporting water and water trucks similar to those used by fire departments.

In addition to its physical infrastructure, Klabin constantly invests in training both its own employees and contractors, who receive technical instruction to ensure they can respond safely and efficiently to fires. The Company also maintains a team of trained forest firefighters, including qualified professionals who are prepared to act in the field.

Klabin collaborates with the local Fire Department and Civil Defense bodies to strengthen its integrated response network. The Company also provides a toll-free hotline to allow community members to report any potential fires in areas neighboring its operations.

Regulatory carbon management
Klabin actively participates in regulatory discussions in Brazil and monitors developments in international legislation, such as the Carbon Border Adjustment Mechanism (CBAM). The Company works to anticipate potential impacts and adopts strategies to minimize any financial exposure by reducing its emissions and advocating for harmonized rules.

Commitment to ESG targets
The Company continuously monitors the progress of its environmental, social and governance commitments, seeking to ensure compliance with the public goals of the 2030 Agenda. This involves tracking periodically reported environmental and social indicators, aligning operations with sustainability principles and the expectations of investors and other stakeholders.

Technical and integrated approach
The Company's core operations have specialized technical teams in the areas of Projects, Engineering and Maintenance, which implement preventive and/or corrective actions to maintain the operational integrity of structures.

Climate opportunities

Legend

Value chain

◀ Upstream ■ Klabin operations ▶ Downstream

Time horizon

● ● ● Short-term
● ● ● Medium-term (2030)
● ● ● Long-term (2050)

Climate Opportunities

Occurrence	Value Chain	Description	Time Horizon	Internal Standards and Initiatives	Metrics	KRI	Unit of Measure
Access to sustainable credit lines	■	Klabin identifies financial opportunities linked to its sustainable practices, which may facilitate access to credit lines with lower interest rates, driven by the strengthening of the climate agenda in Brazil, as well as carbon market regulation and the sustainable taxonomy framework.	● ● ●	Policy for Finance Leverage	Leverage	Net Debt-to-EBITDA Ratio	-
Increased demand for pulp-based products	■ ▶	The growth in global demand for renewable products represents a strategic opportunity, expanding markets seeking to replace fossil-based materials with sustainable alternatives such as natural fibers, thereby strengthening Klabin's portfolio and value chain.	● ● ●	Product development	Demand for pulp-based products	-	-
Development of new products and markets	◀ ■ ▶	The Company identifies an opportunity in the development of forestry products and solutions adapted to climate change, from more resilient seedlings to industrial products with lower carbon intensity, increasing competitiveness and meeting demands for environmental responsibility.	● ● ●	Klabin's Sustainability Policy	Specific CO_2 emissions	Scopes 1 and 2	$kgCO_2eq/t$ output
Investments in new technologies and projects to diversify energy supplies	■	Reducing CO_2 emissions in industrial processes and diversifying energy supplies, with a focus on efficiency and the use of renewable sources, reduces exposure to climate and regulatory risks and strengthens the Company's sustainability.	● ● ●	Klabin's Sustainability Policy	Energy consumption	Energy use	% renewable
Sale of carbon credits	◀ ■	Klabin identifies the commercialization of high-integrity carbon credits, originating from its assets and socio-environmental projects as an opportunity to create new revenue streams, while also promoting sustainable practices among its value chain partners.	● ● ●	Klabin's Sustainability Policy	Net CO_2 removal	CO_2 captured from atmosphere	tCO_2eq

*For each risk and opportunity mapped in the climate context, the possible general and financial impacts were assessed, based on specific scenarios and exercises that simulated different operating and market conditions, based on certain assumptions.

5

Metrics and targets

CBPS 02 (IFRS S2): 29 a (i, i1, i2, i3, ii, iii, iii1, iii2, v, vi, vi1); 33 a; 33 b; 33 c; 33 d; 33 e; 33 f; 33 g; 33 h; 34 a; 34 b; 34 c; 34 f; 36 a; 36 b; 36 c; 36 d

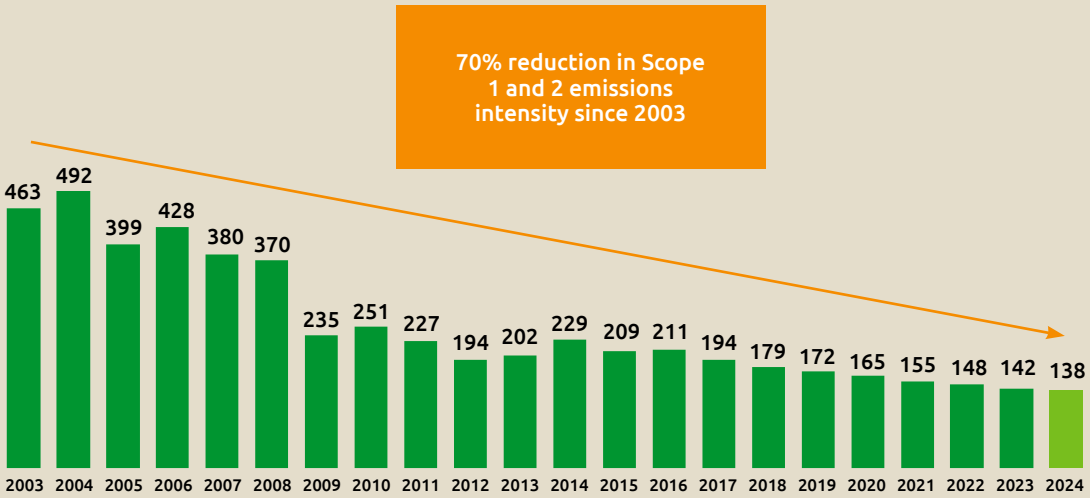
Ortigueira Unit - Ortigueira, Paraná

History of GHG emissions intensity (Scopes 1 and 2)

Klabin's GHG inventories are based on the GHG Protocol methodology and are verified annually by an independent third party. Access the Company's GHG Inventory Statement and Public Emissions Registry.

The Company has quantified its GHG emissions since 2003, and it has invested in low-carbon technologies, contributing to a 70% reduction in emissions intensity (Scopes 1 and 2) by 2024, considering total emissions (industrial and forestry).

GHG emissions intensity ($kgCO_2eq/t$)*



*Specific Scope 1 and 2 emissions, considering industrial operations and forestry.


Forest mosaic, Telêmaco Borba, Paraná

Klabin

Science-based targets

In May 2021, Klabin established two emissions intensity reduction targets, approved by the Science Based Targets initiative (SBTi). These targets considered specific Scope 1 and 2 emissions and were aligned with the “Well Below 2°C” scenario.

In 2024, the Company updated its emissions targets, aligning them with the 1.5°C pathway, as approved by the Science Based Targets initiative (SBTi). In addition, the Company approved its Net-Zero targets. This new framework establishes absolute emission reduction targets and encompasses Scope 3 emissions. The initiative reinforces the Company’s commitment to the transition towards a low-carbon economy and its alignment with leading international scientific guidelines and best practices for addressing climate change.

In the process of submitting and validating its scientific targets, Klabin segmented its emissions into “Energy and Industry” (E&I) and “Forest, Land and Agriculture” (FLAG) categories. E&I emissions cover all operations at industrial units dedicated to the production of paper, pulp and packaging, while FLAG emissions refer to forestry activities such as cultivation and harvesting. The targets, aligned with the 1.5°C scenario, were approved exclusively for industrial emissions, since the SBTi tool for calculating FLAG targets is currently under review. Klabin is awaiting the review and publication of the new FLAG target-setting methodology to submit its targets.

Update of short-term targets and submission of Net-Zero target

The Company submitted its long-term target (Net-Zero) to the SBTi, which was approved by the Executive Board and reported to the Board of Directors.

During the approval process for the new targets, Klabin expanded its Scope 3 accounting, mainly involving the inclusion of two categories related to the processing of sold products (category 10) and end-of-life treatment (category 12). The Company expanded the categories of purchased goods and services (category 1) and activities related to the extraction, production and transportation of fuels (category 3), considering the inputs and products that represent at least 90% of emissions in these categories, based on product carbon footprint studies already conducted.

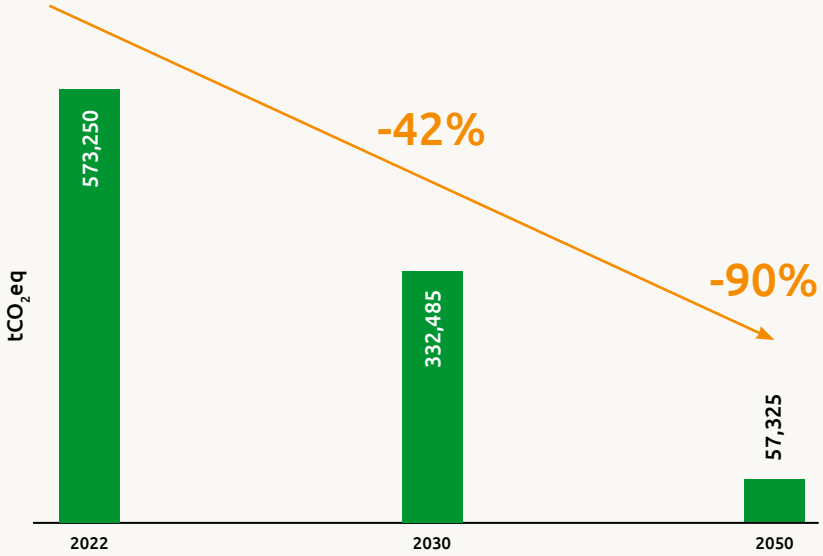
Monte Alegre Mill, Telêmaco Borba, Paraná

Science-based targets

Scope 1 and 2 targets

Short term: Reduce absolute scope 1 and 2 GHG emissions 42% by 2030, from a 2022 base year.*

Long term: Reduce absolute scope 1 and 2 GHG emissions 90% by 2050, compared to 2022 base year.*

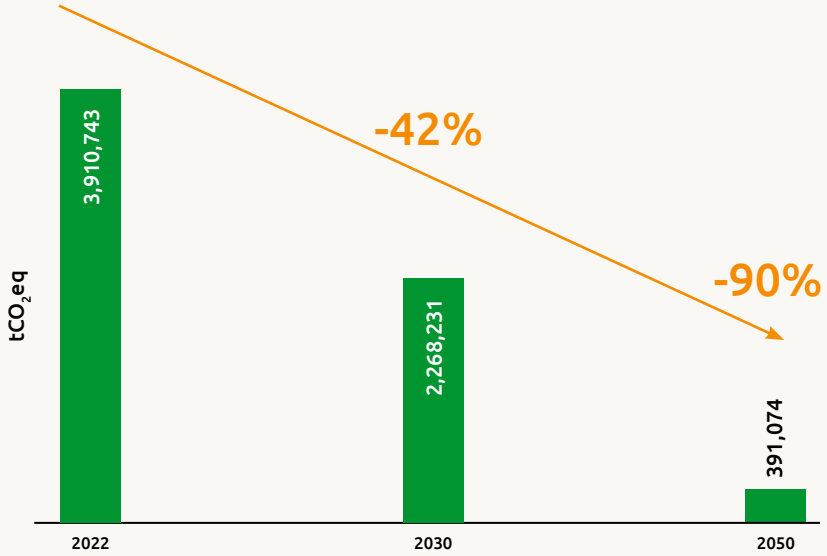


*Considering Energy and Industry emissions.

Scope 3 targets

Short term: Reduce absolute scope 3 GHG emissions 42% by 2030, from a 2022 base year.*

Long term: Reduce absolute scope 3 GHG emissions 90% by 2050, from a 2022 base year.*



*Considering Energy and Industry emissions.

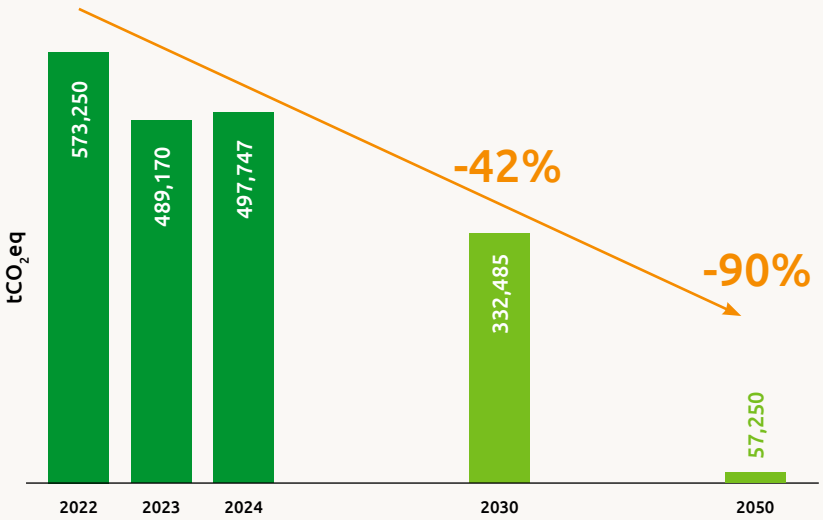
Results

Klabin's new short- and long-term targets, approved by the SBTi in December 2024, are aligned with efforts to limit the increase in the Earth's average temperature to 1.5°C.

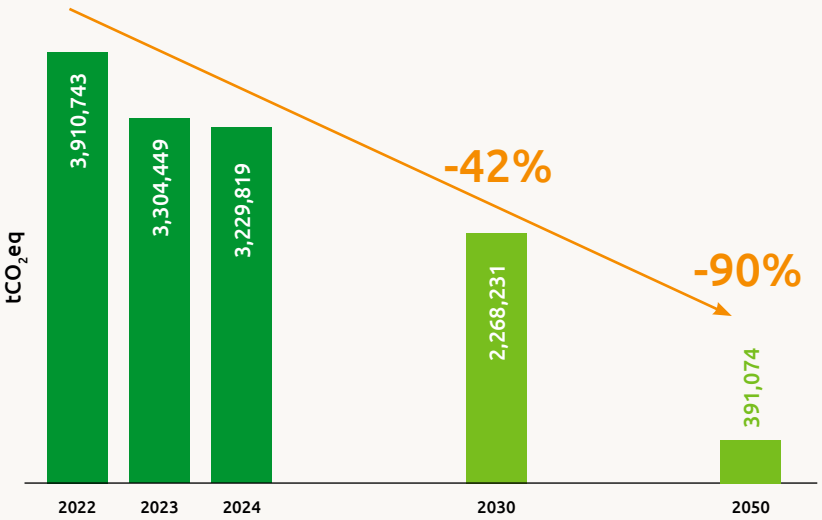
Short-term (2030) and Net-Zero (2050) targets

Based on science and decarbonization strategies: Scopes 1, 2, and 3

Scopes 1+2



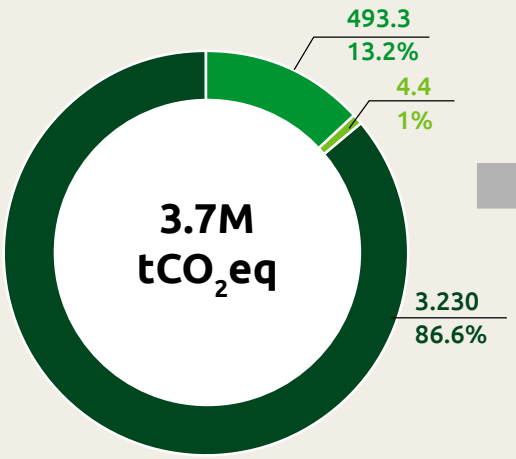
Scope 3



Interim results	Measurement unit	2022	2024	Emissions reduction target 2030	Emissions reduction target 2050
Absolute emission reduction target (Scope 1 + Scope 2)	%	Base year	-13.2	-42	-90
Absolute emission reduction target (Scope 3)	%	Base year	-17.4	-42	-90

Greenhouse Gas (GHG) Emissions Inventory

Scope 1, 2 and 3 emissions* in 2024 ($ktCO_2eq$)



*Energy and Industry emissions.

To access the complete GHG inventory (including forestry emissions), see Appendix I of this document and/or our ESG Panel.

GHG emissions in tCO_2eq (Energy and Industry)

Scopes	2022	2023	2024
Scope 1	**568,224.69**	**484,712.91**	**493,340.36**
Scope 2 – market-based approach	**5,025.43**	**4,456.97**	**4,406.97**
Scope 2 – location-based approach	**137,080.66**	**50,153.91**	**84,810.98**
Scope 3	**3,910,743.48**	**3,304,449.38**	**3,229,819.43**
Category 1: Purchased Goods and Services – Scope 3	528,653.73	445,844.81	377,950.64
Category 3: Fuel- and Energy-Related Activities Not Included in Scope 1 or Scope 2 – Scope 3	299,823.59	162,150.86	237,985.48
Category 4: Upstream Transportation and Distribution – Scope 3	454,131.58	449,903.66	455,671.04
Category 5: Waste generated in operations – Scope 3	587.47	239.01	253.58
Category 6: Business Travel – Scope 3	1,897.06	1,875.66	1,793.03
Category 7: Employee Commuting – Scope 3	15,694.43	12,703.77	40,812.90
Category 9: Downstream Transportation and Distribution – Scope 3	46,760.76	52,478.56	78,968.98
Category 10 – Processing of Sold Products – Scope 3	2,276,239.53	1,899,436.87	1,696,951.59
Category 12 – End-of-Life Treatment of Sold Products – Scope 3	286,955.33	279,816.19	339,432.19
Total for Scopes 1+2+3 (market-based approach)	**4,483,993.61**	**3,793,619.26**	**3,727,566.75**

Scope 3 emissions in 2024

Category 1	Category 3	Category 4	Category 5	Category 6	Category 7	Category 9	Category 10	Category 12
Purchased Goods and Services	Fuel- and Energy-Related Activities Not Included in Scope 1 or Scope 2	Upstream Transportation and Distribution	Waste	Business Travel	Employee Commuting	Downstream Transportation and Distribution	Processing of Sold Products	End-of-Life Treatment of Sold Products
(12%)	(7%)	(14%)	(<1%)	(<1%)	(<1%)	(2%)	(53%)	(11%)

Life Cycle Assessments

Approach based on Klabin's value chain in 2024

LIFE CYCLE ASSESSMENTS

The life cycle assessment methodology considers industrial and forestry emissions, including those occurring in the value chain.

Category 1: emissions from extraction, production and transportation of wood, paper, and industrial and forestry chemicals.

Category 3: emissions from extraction, production and transportation of fuels.

Category 5: emissions from waste generated in operations and disposed of by third parties.

Category 4: emissions from road transportation of inputs to plants and from road and rail transportation of products between Klabin plants, carried out by a third-party company hired and paid for by Klabin.

Scopes 1 + 2

Category 9: emissions from road and maritime transportation of products sold by Klabin, carried out by a third-party company hired and paid for by the client.

Category 10: emissions from processing of intermediate products sold by Klabin (pulp and paper).

Category 12: emissions from end-of-life treatment of products sold by Klabin.

Emissions in categories 2, 8, 11, 13, 14 and 15 are not relevant to Klabin's operations, according to studies conducted by a specialized technical consulting firm.

6

Carbon **credits**

RPPN Serra da Farofa Complex, Telêmaco Borba, Paraná

The Company continuously monitors developments in the voluntary carbon credit market in Brazil, considering its strategic potential for the climate transition agenda. There are three carbon credit generation projects under development: one involving reforestation, covering areas of both native and commercial forests; and two for energy, focused on replacing fossil fuel-intensive processes with renewable sources.

These initiatives are being developed in partnership with value chain actors and are in different stages of validation and registration, aligned with the criteria and requirements of the principal international standards, ensuring the quality and environmental integrity of the credits generated.

Klabin recognizes that following the approval of Law 15,042/2024 – which establishes the country's Emissions Trading System and allows the use of credits to meet a portion of obligations – it will be essential to strengthen the regulatory framework for the voluntary market in Brazil in order to enhance the value of these assets and properly acknowledge the mitigation projects implemented in the country.

Eucalyptus forest, Telêmaco Borba, Paraná

Appendix

GHG emissions (tCO_2eq)

		2022		2023		2024	
		Fossil emissions	Biogenic emissions	Fossil emissions	Biogenic emissions	Fossil emissions	Biogenic emissions
Industrial	Scope 1	568,224.69	6,250,749.82	484,712.91	6,465,738.53	493,340.36	7,195,399.79
	Scope 2	5,025.43	260,667.71	4,456.97	234,813.84	4,406.97	232,173.54
	Scope 3	3,910,743.48	17,203.90	3,304,449.39	23,089.76	3,229,819.43	20,166.84
	Total	**4,483,993.60**	**6,528,621.43**	**3,793,619.27**	**6,723,642.13**	**3,727,566.76**	**7,447,740.17**
Forestry	Scope 1	205,709.26	20,666.88	236,111.15	27,413.70	250,702.09	35,554.64
	Scope 2	-	-	-	-	-	-
	Scope 3	181,701.47	0.00	186,321.86	1,418.21	25,959.28	6,299.50
	Total	**387,410.73**	**20,666.88**	**422,433.01**	**28,831.91**	**276,661.37**	**41,854.14**

Other indirect GHG emissions (Scope 3) (tCO_2eq)

		2022		2023		2024	
		Fossil emissions	Biogenic emissions	Fossil emissions	Biogenic emissions	Fossil emissions	Biogenic emissions
Industrial	Purchased Goods and Services	528,653.73	0	445,844.81	0	377,950.64	0
	Fuel- and Energy-Related Activities Not Included in Scope 1 or Scope 2	299,823.59	-	162,150.86	0	237,985.48	0
	Upstream Transportation and Distribution	454,131.58	16,792.91	449,903.66	20,245.86	455,671.04	19,123.18
	Waste Generated in Operations	587.47	83.67	239.01	2.41	253.58	2.55
	Business Travel	1,897.06	0	1,875.66	0	1,793.03	0
	Employee Commuting	15,694.43	0	12,703.77	2,618.25	40,812.90	0
	Downstream Transportation and Distribution	46,760.76	327.32	52,478.56	223.24	78,968.98	1,041.11
	Processing of Sold Products	2,276,239.53	0	1,899,436.87	0	1,696,951.59	0
	End-of-Life Treatment of Sold Products	286,955.33	0	279,816.19	0	339,432.19	0
	Total	**3,910,743.48**	**17,203.90**	**3,304,449.39**	**23,089.76**	**3,229,819.43**	**20,166.84**
Forestry	Purchased Goods and Services	181,701.47	0	181,567.85	442.86	13,172.08	0
	Fuel- and Energy-Related Activities Not Included in Scope 1 or Scope 3	0	0	0	0	0	0
	Upstream Transportation and Distribution	0	0	0	0	0	6,299.50
	Business Travel	0	0	21.63	0	58.03	0
	Employee Commuting	0	0	4,732.38	975.35	12,729.17	0
	Total	**181,701.47**	**0.00**	**186,321.86**	**1,418.21**	**25,959.28**	**6,299.50**

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