Klabin S/A

2024 CDP Corporate Questionnaire 2024

Word version

Important: this export excludes unanswered questions
This document is an export of your organization's CDP questionnaire response. It contains all data points for questions that are answered or in progress. There may be questions or data points that you have been requested to provide, which are missing from this document because they are currently unanswered. Please note that it is your responsibility to verify that your questionnaire response is complete prior to submission. CDP will not be liable for any failure to do so.
Terms of disclosure for corporate questionnaire 2024 - CDP

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C1. Introduction

(1.1) In which language are you submitting your response?

Select from:

☑ English

(1.2) Select the currency used for all financial information disclosed throughout your response.

Select from:

☑ BRL

(1.3) Provide an overview and introduction to your organization.

(1.3.2) Organization type

Select from:

☑ Privately owned organization

(1.3.3) Description of organization

For 125 years, Klabin has been part of the daily lives of millions of people by creating customized sustainable solutions for various industrial sectors. Klabin is the Brazil's largest paper manufacturer and exporter and the country's leading producer of papers and paperboard for packaging, industrial bags, and corrugated board packaging. Moreover, Klabin is the only Brazilian company to simultaneously supply hardwood pulp (eucalyptus), softwood pulp (pine) and fluff pulp to the market. Founded in Brazil in 1899, currently Klabin has 23 industrial units, 22 units distributed in ten Brazilian states and one in Argentina. Klabin also has commercial offices in various Brazilian states, a branch office in the United States, other in Austria, and sales representatives and agents in many countries. Recently, in 2020, Klabin acquired five units from International Paper in Brazil. The paper and paperboard for packaging manufactured, as well as corrugated board packaging and industrial bags, offer protection and safety to foods, beverages, hygiene and cleaning products, electronics and consumer appliances, cement, seeds, chemical products, and other items. The Klabin's Integrity Program comprises a lot of procedures to prevent, detect and remediate conduct which can expose Klabin to undesirable situations, while also implementing best global practices related to the matter. In this way, Klabin demonstrates its commitment to building ethical relationships, contributing to a more transparent business environment, strengthening its image, reputation, and business strategy, and helping to build a more just and sustainable society. The program, which is aligned with the UN Sustainable Development Goals (SDG), is available to anyone who works or interacts with Klabin in the public or private sectors. Klabin is a global reference in sustainable development. Its forestry and industrial operations are based on this concept to help preserve biodiversity and the ecological balance of the ecosystems surrounding its operations. Klabin's Sustainability Policy integrates the entire production chain and aims to offer the

market environmentally responsible products. To Klabin, sustainability is the continuous creation of value that prioritizes balance among the economic, social, and environmental dimensions. We are a unique forestry company with a responsible management that is committed to biodiversity. We work in collaboration with our clients and suppliers, always guided by innovation and the constant improvement of our products and processes. We together to foster the engagement and development of our people and local communities to achieve increasingly better and sustainable results for the entire value chain. We directly and indirectly influence the social and economic dynamics of the communities living in the cities where we operate. More than just offering good job opportunities, Klabin invests in the region so that the entire population benefits from initiatives in the areas of local development, education, culture, and environmental education. Klabin also offers its employees programs to promote their personal development and volunteer initiatives. All Klabin's operations incorporate into their strategy environmental management aspects, such as water, energy, climate change and biodiversity. In this way, the company strengthens its commitment to preserve natural resources, such as by working to reduce the use of non-renewable resources, controlling environmental impacts, monitoring biodiversity, and preserving fauna and flora in the forests where it has operations. To guarantee quality, attest to the credibility of our products and reinforce our commitment to continuous improvement, our processes are certified by several systems and methodologies that are widely recognized in the global market. The certifications that Klabin holds attest to its pioneering efforts in meeting the needs of its clients and anticipating market trends. Klabin has a research team working at two research facilities focused on improving its production chain. The first – the Forestry Research Center in Lagoa, Telêmaco Borba (PR) – is dedicated to studying everything related to the forestry chain, such as genetic enhancement, wood quality, soil and climate studies, genetic adaptation, pest control and biotechnology, among others. The mission of the other Technology Center, also located in Telêmaco Borba (PR), is to improve the quality of products, while anticipating trends and developing new technologies and sustainable applications. The professionals seek solutions for an increasingly more efficient consumption of inputs to minimize environmental impacts. The company creates 25,000 jobs (direct and indirect) and invests regularly in people development to promote competencies specific to its business, well-being, and safety.
[Fixed row]

(1.4) State the end date of the year for which you are reporting data. For emissions data, indicate whether you will be providing emissions data for past reporting years.

	End date of reporting year	Alignment of this reporting period with your financial reporting period	Indicate if you are providing emissions data for past reporting years
	12/31/2023	*Select from:* ☑ Yes	*Select from:* ☑ No

[Fixed row]

(1.4.1) What is your organization's annual revenue for the reporting period?

18024000000

(1.5) Provide details on your reporting boundary.

	Is your reporting boundary for your CDP disclosure the same as that used in your financial statements?
	Select from: ☑ Yes

[Fixed row]

(1.6) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?

ISIN code - bond

(1.6.1) Does your organization use this unique identifier?

Select from:

☑ Yes

(1.6.2) Provide your unique identifier

BRKLBNCDAM18

ISIN code - equity

(1.6.1) Does your organization use this unique identifier?

Select from:

☑ No

CUSIP number

(1.6.1) Does your organization use this unique identifier?

Select from:

☑ No

Ticker symbol

(1.6.1) Does your organization use this unique identifier?

Select from:

☑ No

SEDOL code

(1.6.1) Does your organization use this unique identifier?

Select from:

☑ No

LEI number

(1.6.1) Does your organization use this unique identifier?

Select from:

☑ No

D-U-N-S number

(1.6.1) Does your organization use this unique identifier?

Select from:

☑ No

Other unique identifier

(1.6.1) Does your organization use this unique identifier?

Select from:

☑ No

[Add row]

(1.7) Select the countries/areas in which you operate.

Select all that apply

☑ Argentina

☑ Austria

☑ Brazil

(1.8) Are you able to provide geolocation data for your facilities?

	Are you able to provide geolocation data for your facilities?	Comment
	Select from: ☑ Yes, for all facilities	*We have 100% of geolocation data for our facilities.*

[Fixed row]

(1.8.1) Please provide all available geolocation data for your facilities.

Row 1

(1.8.1.1) Identifier

Itajaí unit

(1.8.1.2) Latitude

-26.891305

(1.8.1.3) Longitude

-48.709733

(1.8.1.4) Comment

No comments.

Row 2

(1.8.1.1) Identifier

Manaus I unit

(1.8.1.2) Latitude

-3.071521

(1.8.1.3) Longitude

-59.912241

(1.8.1.4) Comment

No comments.

Row 3

(1.8.1.1) Identifier

Paulínia unit

(1.8.1.2) Latitude

-22.757154

(1.8.1.3) Longitude

-47.163636

(1.8.1.4) Comment

No comments.

Row 4

(1.8.1.1) Identifier

Puma unit

(1.8.1.2) Latitude

-24.258055

(1.8.1.3) Longitude

-50.746944

(1.8.1.4) Comment

No comments.

Row 5

(1.8.1.1) Identifier

Lages 1 unit

(1.8.1.2) Latitude

-27.808633

(1.8.1.3) Longitude

-50.363555

(1.8.1.4) Comment

No comments.

Row 6

(1.8.1.1) Identifier

Otacílio Costa unit

(1.8.1.2) Latitude

-27.513275

(1.8.1.3) Longitude

-50.116603

(1.8.1.4) Comment

No comments.

Row 7

(1.8.1.1) Identifier

Angatuba unit

(1.8.1.2) Latitude

-23.565067

(1.8.1.3) Longitude

-48.359227

(1.8.1.4) Comment

No comments.

Row 8

(1.8.1.1) Identifier

Jundiaí DI unit

(1.8.1.2) Latitude

-23.1752

(1.8.1.3) Longitude

-46.931352

(1.8.1.4) Comment

No comments.

Row 9

(1.8.1.1) Identifier

Correia Pinto unit

(1.8.1.2) Latitude

-27.551489

(1.8.1.3) Longitude

-50.364019

(1.8.1.4) Comment

No comments.

Row 10

(1.8.1.1) Identifier

Monte Alegre unit

(1.8.1.2) Latitude

-24.310186

(1.8.1.3) Longitude

-50.6079

(1.8.1.4) Comment

No comments.

Row 11

(1.8.1.1) Identifier

Betim unit

(1.8.1.2) Latitude

-19.964755

(1.8.1.3) Longitude

-44.120758

(1.8.1.4) Comment

No comments.

Row 12

(1.8.1.1) Identifier

Horizonte unit

(1.8.1.2) Latitude

-4.070883

(1.8.1.3) Longitude

-38.50081

(1.8.1.4) Comment

No comments.

Row 13

(1.8.1.1) Identifier

Suzano unit

(1.8.1.2) Latitude

-23.656859

(1.8.1.3) Longitude

-46.329985

(1.8.1.4) Comment

No comments.

Row 14

(1.8.1.1) Identifier

Manaus II unit

(1.8.1.2) Latitude

-3.116783

(1.8.1.3) Longitude

-59.971282

(1.8.1.4) Comment

No comments.

Row 15

(1.8.1.1) Identifier

São Leopoldo unit

(1.8.1.2) Latitude

-29.786711

(1.8.1.3) Longitude

-51.114425

(1.8.1.4) Comment

No comments.

Row 16

(1.8.1.1) Identifier

Franco da Rocha unit

(1.8.1.2) Latitude

-23.325001

(1.8.1.3) Longitude

-46.756239

(1.8.1.4) Comment

No comments.

Row 17

(1.8.1.1) Identifier

Rio Negro unit

(1.8.1.2) Latitude

-26.083283

(1.8.1.3) Longitude

-49.77273

(1.8.1.4) Comment

No comments.

Row 18

(1.8.1.1) Identifier

Rio Verde unit

(1.8.1.2) Latitude

-17.817519

(1.8.1.3) Longitude

-51.003516

(1.8.1.4) Comment

No comments.

Row 19

(1.8.1.1) Identifier

Feira de Santana unit

(1.8.1.2) Latitude

-12.290827

(1.8.1.3) Longitude

-38.91198

(1.8.1.4) Comment

No comments.

Row 20

(1.8.1.1) Identifier

Pilar unit (Argentina)

(1.8.1.2) Latitude

-34.41692

(1.8.1.3) Longitude

-58.96018

(1.8.1.4) Comment

No comments.

Row 21

(1.8.1.1) Identifier

Piracicaba unit

(1.8.1.2) Latitude

-22.687536

(1.8.1.3) Longitude

-47.674963

(1.8.1.4) Comment

No comments.

Row 22

(1.8.1.1) Identifier

Jundiaí TP unit

(1.8.1.2) Latitude

-23.266963

(1.8.1.3) Longitude

-46.865105

(1.8.1.4) Comment

No comments.

Row 23

(1.8.1.1) Identifier

Goiana unit

(1.8.1.2) Latitude

-7.556655

(1.8.1.3) Longitude

-35.035038

(1.8.1.4) Comment

No comments.
[Add row]

(1.11) Are greenhouse gas emissions and/or water-related impacts from the production, processing/manufacturing, distribution activities or the consumption of your products relevant to your current CDP disclosure?

Production

(1.11.1) Relevance of emissions and/or water-related impacts

Select from:
☑ Value chain (including own land)

Processing/ Manufacturing

(1.11.1) Relevance of emissions and/or water-related impacts

Select from:
☑ Both direct operations and upstream/downstream value chain

Distribution

(1.11.1) Relevance of emissions and/or water-related impacts

Select from:

☑ Both direct operations and upstream/downstream value chain

Consumption

(1.11.1) Relevance of emissions and/or water-related impacts

Select from:

☑ Yes

[Fixed row]

(1.22) Provide details on the commodities that you produce and/or source.

Timber products

(1.22.1) Produced and/or sourced

Select from:

☑ Produced and sourced

(1.22.2) Commodity value chain stage

Select all that apply

☑ Production

☑ Processing

☑ Trading

(1.22.4) Indicate if you are providing the total commodity volume that is produced and/or sourced

Select from:

☑ Yes, we are providing the total volume

(1.22.5) Total commodity volume (metric tons)

(1.22.8) Did you convert the total commodity volume from another unit to metric tons?

Select from:

☑ No

(1.22.11) Form of commodity

Select all that apply

☑ Hardwood logs

☑ Sawn timber, veneer, chips

☑ Softwood logs

(1.22.12) % of procurement spend

Select from:

☑ 41-50%

(1.22.13) % of revenue dependent on commodity

Select from:

☑ 91-99%

(1.22.14) In the questionnaire setup did you indicate that you are disclosing on this commodity?

Select from:

☑ Yes, disclosing

(1.22.15) Is this commodity considered significant to your business in terms of revenue?

Select from:

☑ Yes

(1.22.19) Please explain

*Klabin, FSC certified since 1998, is recognized for sustainable forest management. It conserves natural resources, ensures fair working conditions, and fosters healthy community relations. The company uses mosaic management to optimize forest operations while preserving water resources and biodiversity, ensuring business sustainability. This is the most important part of our risk control investment. The wood suppliers' areas are also considered in the risk control. Investments in programs that involves field verification (Controlled Wood); forestry certification (Smallholder Certif. Program); and environmental adjustment of suppliers' properties (Legal and Social Wood Programs) are performed. The consumption volume in the industrial process was 14,010 tons, which 53% is from Klabin's owned and managed forests and the other 47% was purchased from partnerships and producers. Timber is classified as the main raw material for pulp and paper production. Based on the total amount of inputs consumed in 2023 for total production of Klabin S/A, wood represents 91% of the amount of the inputs. Calculation: % Revenue Total Quantity of Wood (t / year) / Total Quantity of Input (t / year) * 100. % Revenue (14,010/15,40 4)*100 91%. It is also important to mention that, considering all the inputs consumed by Klabin in 2023, 98% are from renewable origin, the remaining 2% refer to chemicals used in the production process.*
[Fixed row]

(1.23) Which of the following agricultural commodities that your organization produces and/or sources are the most significant to your business by revenue?

Cotton

(1.23.1) Produced and/or sourced

Select from:
☑ No

Dairy & egg products

(1.23.1) Produced and/or sourced

Select from:
☑ No

Fish and seafood from aquaculture

(1.23.1) Produced and/or sourced

Select from:
☑ No

Fruit

(1.23.1) Produced and/or sourced

Select from:

☑ No

Maize/corn

(1.23.1) Produced and/or sourced

Select from:

☑ No

Nuts

(1.23.1) Produced and/or sourced

Select from:

☑ No

Other grain (e.g., barley, oats)

(1.23.1) Produced and/or sourced

Select from:

☑ No

Other oilseeds (e.g. rapeseed oil)

(1.23.1) Produced and/or sourced

Select from:

☑ No

Poultry & hog

(1.23.1) Produced and/or sourced

Select from:

☑ No

Rice

(1.23.1) Produced and/or sourced

Select from:

☑ No

Sugar

(1.23.1) Produced and/or sourced

Select from:

☑ No

Tea

(1.23.1) Produced and/or sourced

Select from:

☑ No

Tobacco

(1.23.1) Produced and/or sourced

Select from:

☑ No

Vegetable

(1.23.1) Produced and/or sourced

Select from:
☑ No

Wheat

(1.23.1) Produced and/or sourced

Select from:
☑ No

Other commodity

(1.23.1) Produced and/or sourced

Select from:
☑ No
[Fixed row]

(1.24) Has your organization mapped its value chain?

(1.24.1) Value chain mapped

Select from:
☑ Yes, we have mapped or are currently in the process of mapping our value chain

(1.24.2) Value chain stages covered in mapping

Select all that apply
☑ Upstream value chain

☑ Downstream value chain

(1.24.3) Highest supplier tier mapped

Select from:

☑ Tier 1 suppliers

(1.24.4) Highest supplier tier known but not mapped

Select from:

☑ Tier 2 suppliers

(1.24.6) Smallholder inclusion in mapping

Select from:

☑ Smallholders relevant and included

(1.24.7) Description of mapping process and coverage

Commodity management is very important to ensure the lowest financial, operational and legal risk for Klabin. The level of management varies according to the contractual clauses (owned, leased or partnership), but all of them undergo a verification process that consist on legal documentation and georeferenced assessments. In order to meet the same criteria throughout the entire value chain, Klabin is constantly investing in technologies to map and monitor forest risks. Some tools used by GIS team: (i)temporal analyses from LandSat 1994 images, to identify conversion of forests; (ii)satellite monitoring, which allows environmental assessment of PPAs and LRs in accordance with the Brazilian Forest Code; (iii)official data bases (FUNAI, IPHAN, i.e.) for mapping rural and traditional communities near of forestry operation; (iv)monitoring deforestation alert in region of influence by using Map Biomas tool. Klabin is committed to 100% CoC Certification. In 2023, Klabin purchased wood from 288 suppliers. Our first tear supplier refers to small, medium and large producers; distributed in over 100 municipalities through São Paulo, Paraná, Santa Catarina and Rio Grande do Sul states of Brazil. Wood purchase invoice registration in the internal company system (SAP) contains (i) supplier's registration code and (ii) origin of the wood as certified or not. Each farm/material has a specific purchase area, which provides reliable control over the origin of the wood. This method ensure the raw material traceability. The control of SAP is the Controllership responsibility. Meanwhile, field operational is accompanied by audit visits led by Environmental Responsibility team. The audit evidence and purchasing documents are maintained for at least 5 years. Klabin has a documented due diligence system (DDS) for raw materials supplied without FSC or Cerflor declarations. It allows to be used as controlled raw material. All raw material suppliers are included in the DDS. At least once a year, Klabin performs an internal audit to ensure that the system is being applied correctly.
[Fixed row]

(1.24.1) Have you mapped where in your direct operations or elsewhere in your value chain plastics are produced, commercialized, used, and/or disposed of?

(1.24.1.1) Plastics mapping

Select from:

☑ Yes, we have mapped or are currently in the process of mapping plastics in our value chain

(1.24.1.2) Value chain stages covered in mapping

Select all that apply

☑ Upstream value chain

☑ End-of-life management

(1.24.1.4) End-of-life management pathways mapped

Select all that apply

☑ Recycling

☑ Waste to Energy

☑ Landfill

[Fixed row]

(1.24.2) Which commodities has your organization mapped in your upstream value chain (i.e., supply chain)?

Timber products

(1.24.2.1) Value chain mapped for this sourced commodity

Select from:

☑ Yes

(1.24.2.2) Highest supplier tier mapped for this sourced commodity

Select from:

☑ Tier 1 suppliers

(1.24.2.3) % of tier 1 suppliers mapped

Select from:

☑ 100%

(1.24.2.7) Highest supplier tier known but not mapped for this sourced commodity

Select from:

☑ All supplier tiers known have been mapped for this sourced commodity

[Fixed row]

C2. Identification, assessment, and management of dependencies, impacts, risks, and opportunities

(2.1) How does your organization define short-, medium-, and long-term time horizons in relation to the identification, assessment, and management of your environmental dependencies, impacts, risks, and opportunities?

Short-term

(2.1.1) From (years)

1

(2.1.3) To (years)

10

(2.1.4) How this time horizon is linked to strategic and/or financial planning

Actions and goals in strategic planning of the organization for the current and following year (1 to 10 years horizon, it is considered short term)

Medium-term

(2.1.1) From (years)

11

(2.1.3) To (years)

20

(2.1.4) How this time horizon is linked to strategic and/or financial planning

Medium-term actions and targets are those that have goals of 11 to at most 20 years horizon.

Long-term

(2.1.1) From (years)

21

(2.1.2) Is your long-term time horizon open ended?

Select from:
☑ Yes

(2.1.4) How this time horizon is linked to strategic and/or financial planning

Long-term actions and goals are those that present longer periods than those described in the medium term, following long-term thoughts that may be longer than 20 years.
[Fixed row]

(2.2) Does your organization have a process for identifying, assessing, and managing environmental dependencies and/or impacts?

	Process in place	Dependencies and/or impacts evaluated in this process
	Select from: ☑ Yes	*Select from:* ☑ Both dependencies and impacts

[Fixed row]

(2.2.1) Does your organization have a process for identifying, assessing, and managing environmental risks and/or opportunities?

	Process in place	Risks and/or opportunities evaluated in this process	Is this process informed by the dependencies and/or impacts process?
	Select from: ☑ Yes	*Select from:* ☑ Both risks and opportunities	*Select from:* ☑ Yes

[Fixed row]

(2.2.2) Provide details of your organization's process for identifying, assessing, and managing environmental dependencies, impacts, risks, and/or opportunities.

Row 1

(2.2.2.1) Environmental issue

Select all that apply

☑ Climate change

(2.2.2.2) Indicate which of dependencies, impacts, risks, and opportunities are covered by the process for this environmental issue

Select all that apply

☑ Dependencies

☑ Impacts

☑ Risks

☑ Opportunities

(2.2.2.3) Value chain stages covered

Select all that apply

☑ Direct operations

☑ Upstream value chain
☑ Downstream value chain
☑ End of life management

(2.2.2.4) Coverage

Select from:
☑ Full

(2.2.2.5) Supplier tiers covered

Select all that apply
☑ Tier 1 suppliers

(2.2.2.7) Type of assessment

Select from:
☑ Qualitative and quantitative

(2.2.2.8) Frequency of assessment

Select from:
☑ Annually

(2.2.2.9) Time horizons covered

Select all that apply
☑ Short-term
☑ Medium-term
☑ Long-term

(2.2.2.10) Integration of risk management process

Select from:

☑ Integrated into multi-disciplinary organization-wide risk management process

(2.2.2.11) Location-specificity used

Select all that apply

☑ Site-specific

☑ Local

(2.2.2.12) Tools and methods used

Enterprise Risk Management

☑ Enterprise Risk Management

☑ ISO 31000 Risk Management Standard

International methodologies and standards

☑ IPCC Climate Change Projections

☑ ISO 14001 Environmental Management Standard

☑ Life Cycle Assessment

(2.2.2.13) Risk types and criteria considered

Acute physical

☑ Drought

☑ Landslide

☑ Wildfires

☑ Heat waves

☑ Heavy precipitation (rain, hail, snow/ice)

☑ Flood (coastal, fluvial, pluvial, ground water)

Chronic physical

☑ Change in land-use

☑ Changing precipitation patterns and types (rain, hail, snow/ice)

☑ Changing temperature (air, freshwater, marine water)

☑ Water stress
☑ Water quality at a basin/catchment level

Policy
☑ Carbon pricing mechanisms
☑ Changes to international law and bilateral agreements
☑ Changes to national legislation

Market
☑ Changing customer behavior

Reputation
☑ Negative press coverage related to support of projects or activities with negative impacts on the environment (e.g. GHG emissions, deforestation & conversion, water stress)

Technology
☑ Transition to lower emissions technology and products

Liability
☑ Non-compliance with regulations

(2.2.2.14) Partners and stakeholders considered

Select all that apply
☑ Customers
☑ Employees
☑ Investors
☑ Suppliers
☑ Regulators
☑ Local communities
☑ Indigenous peoples

(2.2.2.15) Has this process changed since the previous reporting year?

Select from:

☑ No

(2.2.2.16) Further details of process

Klabin uses scenario analysis to identify, assess, and price the impacts of risks and opportunities about climate changes in its operations and its value chain (upstream and downstream). The analyzed scenarios consider physical and transition variables. To identify climate risks and opportunities, the company: (i) developed specific studies considering future climate scenarios for the regions in which it has operations; (ii) used studies available in the literature; (iii) used company's history and records with climatic events already experienced. The identified risks and opportunities were assessed according to the company's risk and opportunities management criteria and metrics which crosses the impact analysis considering qualitative and quantitative factors (financial, reputational, environment and health and safety) with vulnerability/ magnitude and dependencies analysis (occurrence, internal controls and perspective of occurrence). Example of the metrics used to assess the risks: (i) Financial impact: R: 700 MM – critical impact, 400 150 24 months – critical impact, 12 a 24 months - high impact,

Row 2

(2.2.2.1) Environmental issue

Select all that apply

☑ Forests

(2.2.2.2) Indicate which of dependencies, impacts, risks, and opportunities are covered by the process for this environmental issue

Select all that apply

☑ Dependencies

☑ Impacts

☑ Risks

☑ Opportunities

(2.2.2.3) Value chain stages covered

Select all that apply

☑ Direct operations

☑ Upstream value chain

☑ Downstream value chain

☑ End of life management

(2.2.2.4) Coverage

Select from:

☑ Full

(2.2.2.5) Supplier tiers covered

Select all that apply

☑ Tier 1 suppliers

(2.2.2.7) Type of assessment

Select from:

☑ Qualitative and quantitative

(2.2.2.8) Frequency of assessment

Select from:

☑ Annually

(2.2.2.9) Time horizons covered

Select all that apply

☑ Short-term

☑ Medium-term

☑ Long-term

(2.2.2.10) Integration of risk management process

Select from:

☑ Integrated into multi-disciplinary organization-wide risk management process

(2.2.2.11) Location-specificity used

Select all that apply

☑ Site-specific

☑ Local

(2.2.2.12) Tools and methods used

Commercially/publicly available tools

☑ Sustainability Policy Transparency Toolkit (SPOTT)

Enterprise Risk Management

☑ Internal company methods

International methodologies and standards

☑ Environmental Impact Assessment

☑ Global Forest Watch

☑ Other international methodologies and standards, please specify :FSC anda PEFC

Databases

☑ Nation-specific databases, tools, or standards

Other

☑ External consultants

☑ Internal company methods

(2.2.2.13) Risk types and criteria considered

Acute physical

☑ Landslide

☑ Wildfires

Chronic physical

☑ Change in land-use

Policy

☑ Changes to international law and bilateral agreements

☑ Changes to national legislation

Market

☑ Availability and/or increased cost of certified sustainable material

☑ Availability and/or increased cost of raw materials

☑ Changing customer behavior

Reputation

☑ Negative press coverage related to support of projects or activities with negative impacts on the environment (e.g. GHG emissions, deforestation & conversion, water stress)

Technology

☑ Inability to increase yield of existing production areas

Liability

☑ Non-compliance with regulations

(2.2.2.14) Partners and stakeholders considered

Select all that apply

☑ NGOs

☑ Customers

☑ Employees

☑ Investors

☑ Suppliers

☑ Regulators

☑ Local communities

☑ Indigenous peoples

☑ Other commodity users/producers at a local level

(2.2.2.15) Has this process changed since the previous reporting year?

Select from:

☑ No

(2.2.2.16) Further details of process

Klabin's main raw material is wood from planted forest to attend the demand for pulp and paper production. Due to the relevance for the organization, forest-related issues are integrated into a companywide risk assessment framework. Klabin uses scenario analysis to identify, assess, and price the impacts of risks and opportunities about climate changes in its operations and its value chain (upstream and downstream). The analyzed scenarios consider physical and transition variables, as already pointed out in Row 1 - Climate change and Row 3 - Water. Especially for value chain forest-related risks, FSC guidelines are adopted. External audits are conducted annually. Widely approved in the sector and recognized by stakeholders, it brings security and credibility to risk management. FSC is effective for the company once its guidelines indicate the main risks that must be identified for the eligibility of areas for commercial transactions. GIS crew included MapBiomas alert tool in the weekly work routine to continually improve quality of assessment. MapBiomas is a good source of geo information because of its scope and data quality - it considers national database (ie. CAR) and provides an overview of landscape/jurisdicional approach. It is an intuitive and user-friendly tool for assessing deforestation alerts and changes in land use coverage. By 2023, MapBiomas Alert Shapefile detected about 603 hectares in 74 properties. Negotiations were suspended and company's legal department was mobilized to guide the procedure. This information allowed a safe complement in the environmental diagnostics of properties for decision-making, safeguarding Klabin from the risk of obtaining wood from controversial sources.

Row 3

(2.2.2.1) Environmental issue

Select all that apply

☑ Water

(2.2.2.2) Indicate which of dependencies, impacts, risks, and opportunities are covered by the process for this environmental issue

Select all that apply

☑ Dependencies

☑ Impacts

☑ Risks

☑ Opportunities

(2.2.2.3) Value chain stages covered

Select all that apply

☑ Direct operations

☑ Upstream value chain

☑ Downstream value chain

☑ End of life management

(2.2.2.4) Coverage

Select from:

☑ Full

(2.2.2.5) Supplier tiers covered

Select all that apply

☑ Tier 1 suppliers

(2.2.2.7) Type of assessment

Select from:

☑ Qualitative and quantitative

(2.2.2.8) Frequency of assessment

Select from:

☑ More than once a year

(2.2.2.9) Time horizons covered

Select all that apply

☑ Short-term

☑ Medium-term

☑ Long-term

(2.2.2.10) Integration of risk management process

Select from:

☑ Integrated into multi-disciplinary organization-wide risk management process

(2.2.2.11) Location-specificity used

Select all that apply

☑ Site-specific

☑ Local

(2.2.2.12) Tools and methods used

Commercially/publicly available tools

☑ EcoVadis

☑ WRI Aqueduct

Enterprise Risk Management

☑ Enterprise Risk Management

☑ ISO 31000 Risk Management Standard

International methodologies and standards

☑ IPCC Climate Change Projections

☑ ISO 14001 Environmental Management Standard

☑ ISO 14046 Environmental Management – Water Footprint

☑ Life Cycle Assessment

(2.2.2.13) Risk types and criteria considered

Acute physical

☑ Drought

☑ Flood (coastal, fluvial, pluvial, ground water)

☑ Heavy precipitation (rain, hail, snow/ice)

☑ Pollution incident

Chronic physical

☑ Water availability at a basin/catchment level

☑ Water stress

☑ Water quality at a basin/catchment level

Policy

☑ Changes to international law and bilateral agreements

☑ Changes to national legislation

☑ Increased pricing of water

Market

☑ Availability and/or increased cost of raw materials

☑ Inadequate access to water, sanitation, and hygiene services (WASH)

Reputation

☑ Impact on human health

☑ Negative press coverage related to support of projects or activities with negative impacts on the environment (e.g. GHG emissions, deforestation & conversion, water stress)

☑ Stakeholder conflicts concerning water resources at a basin/catchment level

Technology

☑ Dependency on water-intensive energy sources

☑ Data access/availability or monitoring systems

☑ Transition to water efficient and low water intensity technologies and products

Liability

☑ Non-compliance with regulations

(2.2.2.14) Partners and stakeholders considered

Select all that apply

☑ NGOs

☑ Regulators

☑ Customers
☑ Employees
☑ Investors
☑ Suppliers
☑ Local communities
☑ Indigenous peoples
☑ Water utilities at a local level
☑ Other water users at the basin/catchment level

(2.2.2.15) Has this process changed since the previous reporting year?

Select from:
☑ No

(2.2.2.16) Further details of process

Klabin uses scenario analysis to identify, assess, and price the impacts of risks and opportunities about climate changes in its operations and its value chain (upstream and downstream). The analyzed scenarios consider physical and transition variables, and they are based on IPCC (SSP1-2.6 and SSP3-7.0) and WRI Aqueduct scenarios. To Klabin, it is important to assess 100% of its direct operations and its critical value chain to identify risks and opportunities to define appropriate responses or actions. To identify climate risks and opportunities, the company: (i) developed specific studies considering future climate scenarios for the regions in which it has operations; (ii) used studies available in the literature; (iii) used company's history and records with climatic events already experienced. The identified risks and opportunities were assessed according to the company's risk and opportunities management criteria and metrics which crosses the impact analysis considering qualitative and quantitative factors (financial, reputational, environment and health and safety) with vulnerability / magnitude and dependencies analysis (occurrence, internal controls and perspective of occurrence). For example, the metric used to assess financial impact considers: R: 700 MM – critical impact, 400 150

Row 4

(2.2.2.1) Environmental issue

Select all that apply
☑ Plastics

(2.2.2.2) Indicate which of dependencies, impacts, risks, and opportunities are covered by the process for this environmental issue

Select all that apply
☑ Dependencies
☑ Impacts

☑ Risks
☑ Opportunities

(2.2.2.3) Value chain stages covered

Select all that apply
☑ Direct operations
☑ Upstream value chain
☑ Downstream value chain

(2.2.2.4) Coverage

Select from:
☑ Partial

(2.2.2.5) Supplier tiers covered

Select all that apply
☑ Tier 1 suppliers

(2.2.2.7) Type of assessment

Select from:
☑ Qualitative and quantitative

(2.2.2.8) Frequency of assessment

Select from:
☑ Not defined

(2.2.2.9) Time horizons covered

Select all that apply
☑ Medium-term

☑ Long-term

(2.2.2.10) Integration of risk management process

Select from:

☑ Integrated into multi-disciplinary organization-wide risk management process

(2.2.2.11) Location-specificity used

Select all that apply

☑ National

☑ Not location specific

(2.2.2.12) Tools and methods used

International methodologies and standards

☑ ISO 14001 Environmental Management Standard

☑ Life Cycle Assessment

Other

☑ Internal company methods

(2.2.2.13) Risk types and criteria considered

Policy

☑ Changes to international law and bilateral agreements

☑ Changes to national legislation

Market

☑ Changing customer behavior

Technology

☑ Transition to increasing renewable content

(2.2.2.14) Partners and stakeholders considered

Select all that apply

☑ Customers

☑ Employees

☑ Regulators

☑ Suppliers

(2.2.2.15) Has this process changed since the previous reporting year?

Select from:

☑ Yes

(2.2.2.16) Further details of process

Plastic is a material used in some of the packaging and papers produced by Klabin. It represents a very low percentage with specific applications, but it has been the subject of study in recent years to reduce or even eliminate it from the packaging and papers produced. Additionally, there are transport packaging (such as plastic films) that are used in the transportation of many paper packages. Due to the difficulty in recycling certain plastics, multilayer packaging with plastic, and the impact caused by improper disposal, Klabin's strategy has been to research and develop alternatives to plastics, whether through packaging substitution, the development of renewable-based coatings, or even alternative solutions to plastics that are effectively and verifiably recyclable, in partnership with suppliers and customers. In terms of managing this risk, Klabin monitors both market behavior in the substitution of plastic products by cellulosic ones and market trends where paper products are being replaced by plastics. Furthermore, regulations aimed at banning, limiting, and holding producers accountable for plastic waste are closely followed to assess potential impacts on cellulosic products containing plastic or even opportunities that arise for substituting plastic materials with cellulosic ones.

Row 5

(2.2.2.1) Environmental issue

Select all that apply

☑ Biodiversity

(2.2.2.2) Indicate which of dependencies, impacts, risks, and opportunities are covered by the process for this environmental issue

Select all that apply

☑ Dependencies

☑ Impacts

☑ Risks

☑ Opportunities

(2.2.2.3) Value chain stages covered

Select all that apply

☑ Direct operations

☑ Upstream value chain

☑ Downstream value chain

☑ End of life management

(2.2.2.4) Coverage

Select from:

☑ Full

(2.2.2.5) Supplier tiers covered

Select all that apply

☑ Tier 1 suppliers

(2.2.2.7) Type of assessment

Select from:

☑ Qualitative and quantitative

(2.2.2.8) Frequency of assessment

Select from:

☑ Annually

(2.2.2.9) Time horizons covered

Select all that apply

☑ Short-term

☑ Medium-term

☑ Long-term

(2.2.2.10) Integration of risk management process

Select from:

☑ Integrated into multi-disciplinary organization-wide risk management process

(2.2.2.11) Location-specificity used

Select all that apply

☑ Site-specific

☑ Local

(2.2.2.12) Tools and methods used

Commercially/publicly available tools

☑ CBD – Convention on Biological Diversity

☑ Encore tool

☑ TNFD – Taskforce on Nature-related Financial Disclosures

☑ WBCSD Corporate Ecosystem Services Review

Enterprise Risk Management

☑ Enterprise Risk Management

☑ ISO 31000 Risk Management Standard

(2.2.2.13) Risk types and criteria considered

Policy

☑ Changes to international law and bilateral agreements

☑ Changes to national legislation

Reputation

☑ Negative press coverage related to support of projects or activities with negative impacts on the environment (e.g. GHG emissions, deforestation & conversion, water stress)

(2.2.2.14) Partners and stakeholders considered

Select all that apply

☑ Customers

☑ Employees

☑ Investors

☑ Suppliers

☑ Regulators

☑ Local communities

☑ Indigenous peoples

(2.2.2.15) Has this process changed since the previous reporting year?

Select from:

☑ Yes

(2.2.2.16) Further details of process

Klabin conducts scenario analysis to identify, evaluate, and quantify the impacts of risks and opportunities related to biodiversity within its operations and across its entire value chain (both upstream and downstream). The company employs the LEAP (Locate, Evaluate, Assess, and Prepare) framework to manage dependencies, impacts, risks, and opportunities, in alignment with the recommendations of the TNFD (Taskforce on Nature-related Financial Disclosures). To identify these factors, Klabin relies on data from studies found in existing literature as well as the company's own historical records. Alongside the LEAP approach, additional tools such as the WRI Aqueduct are utilized to determine both quantitative and qualitative water risks. The Central Units have already been identified as priority locations due to their significance to Klabin's business. For the Industrial Units, the following criteria were applied: (i) Physical Water Risk (quantitative), (ii) Physical Water Risk (qualitative), and (iii) Conservation Priority Areas, which are ranked on five levels: Extremely High, High, Medium-High, Medium-Low, and Low. (iv) Units located in Hotspot Areas are classified into three categories: Atlantic Forest, Cerrado, and Unclassified. (v) Soil Quality is assessed at four levels: Severe Limitation, Moderate Limitation, Low Limitation, and No Limitation. For Forest Units, (vi) Klabin's presence is included in the criteria to identify priority areas across three levels: high, medium, and low operational density. Additionally, all locations were classified according to their respective ecoregions.

[Add row]

(2.2.7) Are the interconnections between environmental dependencies, impacts, risks and/or opportunities assessed?

(2.2.7.1) Interconnections between environmental dependencies, impacts, risks and/or opportunities assessed

Select from:

☑ Yes

(2.2.7.2) Description of how interconnections are assessed

Klabin's main raw material is wood from planted forest to attend the demand for pulp and paper production. Due to the relevance for the organization, biodiversity-related issues, and their dependencies, such as forest, water and climate, are integrated into a companywide risk assessment framework. The main guidelines used regarding the interconnections to integrate the assessment of different environmental dependencies, impacts, risks and opportunities into a single process are in the TCFD. TCFD was created by the Financial Stability Board (FSB), which established a set of recommendations for companies to disclose their information on managing climate-related risks and opportunities. In addition, in 2023, Klabin started to incorporate the principles and guidelines of TNFD into his studies. The Company adopts a series of measures to identify and mitigate climate risks and explore opportunities in direct operations related to four elements: governance, strategy, risk management and goals & metrics. Klabin has a dedicated area for risk management and a Risk Committee composed by Executive Directors, with a quarterly agenda for decision-making in short, medium and long-term to ensure risk governance. Klabin, which belongs to the forestry sector, depends on flood mitigation services, which is a risk prioritized by the company. As such, this dependency is directly related to the themes of water, climate and forests. Another example would be the risk of forest fires, which is directly related to forests and climate.
[Fixed row]

(2.3) Have you identified priority locations across your value chain?

(2.3.1) Identification of priority locations

Select from:

☑ Yes, we are currently in the process of identifying priority locations

(2.3.2) Value chain stages where priority locations have been identified

Select all that apply

☑ Direct operations

☑ Upstream value chain

(2.3.3) Types of priority locations identified

Sensitive locations

☑ Areas important for biodiversity

☑ Areas of limited water availability, flooding, and/or poor quality of water

Locations with substantive dependencies, impacts, risks, and/or opportunities

☑ Locations with substantive dependencies, impacts, risks, and/or opportunities relating to forests

☑ Locations with substantive dependencies, impacts, risks, and/or opportunities relating to water

☑ Locations with substantive dependencies, impacts, risks, and/or opportunities relating to biodiversity

(2.3.4) Description of process to identify priority locations

To identify priority locations, the company is developing specific studies using the LEAP (Locate, Evaluate, Assess, and Prepare) approach to identify and manage dependencies, impacts, risks, and opportunities following the TNFD (Taskforce on Nature-related Financial Disclosures) recommendations. This assessment considers the main Klabin value chain formed by Pulp and Paper units in the center, Forest units and wood suppliers upstream, and Packaging units downstream. To identify impacts, dependencies, risks, and opportunities, the company is using data based on studies available in the literature and the company's history. To define criteria for selecting priority locations in Klabin, the experts involved in these studies are using references suggested by the TNFD. Besides Sustainability Police, the priority locations studies consider: (i) Principles 6 and 9 of the FSC, regarding Environmental Impact and Maintenance of High Conservation Value Forests, and the Requirement for Maintaining a Sufficient Ecological Network of Conservation Areas. (ii) Guidance Note 6 of the IFC, concerning Biodiversity Conservation and Sustainable Management of Natural Resources. (iii) Legal and political context, including the federal environmental legal system with implications for this Biodiversity Plan. Besides LEAP, other tools were used to define this classification, such as WRI Aqueduct to identify water quantitative and qualitative risks. The Center Units already were considered such as priority locations due their relevance to Klabin's business. The following criteria were applied to the Industrial Units: (i) Water Physical Risk (quantitative), (ii) Water Physical Risk (qualitative), and (iii) Conservation Priority Areas criteria are categorized into five levels: Extremely High, High, Medium-High, Medium-Low, and Low. (iv) Units in Hotspot Areas is classified into three categories: Atlantic Forest, Cerrado, and Unclassified. (v) Soil Quality is categorized into four levels: Severe Limitation, Moderate Limitation, Low Limitation, and No Limitation. To Forest Units, the (vi) Klabin's presence are included in criteria to identify priority areas in three levels: high, medium and low operational density. In addition, all locations were classified in ecoregions. The next step will be evaluating critical suppliers (upstream) and main customers (downstream) about the same view of current studies.

(2.3.5) Will you be disclosing a list/spatial map of priority locations?

Select from:

☑ No, we have a list/geospatial map of priority locations, but we will not be disclosing it

[Fixed row]

(2.4) How does your organization define substantive effects on your organization?

Risks

(2.4.1) Type of definition

Select all that apply

☑ Qualitative

☑ Quantitative

(2.4.2) Indicator used to define substantive effect

Select from:

☑ Revenue

(2.4.3) Change to indicator

Select from:

☑ Absolute decrease

(2.4.5) Absolute increase/ decrease figure

150000000

(2.4.6) Metrics considered in definition

Select all that apply

☑ Frequency of effect occurring

☑ Time horizon over which the effect occurs

☑ Likelihood of effect occurring

(2.4.7) Application of definition

The definition of substantive effects on the business is based on Klabin's risk management framework. Klabin has a dedicated risk management area that oversees the entire organization and value chain. This management approach classifies risks into five categories: strategic, financial, operational, regulatory, and socioenvironmental. In criticality matrix we consider Impact and Vulnerability degree for each risk identified. The criteria are used to measure Impact are: - Financial impact (BRL): 700 - critical impact; 400 150 MM 24 months – critical impact, 12 a 24 months - high impact,

Opportunities

(2.4.1) Type of definition

Select all that apply

☑ Qualitative

☑ Quantitative

(2.4.2) Indicator used to define substantive effect

Select from:

☑ Revenue

(2.4.3) Change to indicator

Select from:

☑ Absolute increase

(2.4.5) Absolute increase/ decrease figure

150000000

(2.4.6) Metrics considered in definition

Select all that apply

☑ Frequency of effect occurring

☑ Time horizon over which the effect occurs

☑ Likelihood of effect occurring

(2.4.7) Application of definition

The definition of opportunities follows the similar process of risks management. The opportunities are defined using a matrix that we consider Positive Impact and Magnitude. This management approach classifies opportunities into five categories: resource efficiency, financial, operational, regulatory, and socioenvironmental. In matrix we consider Positive Impact and Magnitude degree for each opportunity identified. The criteria are used to measure Positive Impact are: - Financial positive impact (BRL): 700 - critical impact; 400 150 MM 24 months – critical impact, 12 a 24 months - high impact,
[Add row]

(2.5) Does your organization identify and classify potential water pollutants associated with its activities that could have a detrimental impact on water ecosystems or human health?

(2.5.1) Identification and classification of potential water pollutants

Select from:

☑ Yes, we identify and classify our potential water pollutants

(2.5.2) How potential water pollutants are identified and classified

Each Klabin unit has an operational procedure related to environmental issues monitoring that includes how quality of their water must be monitoring. These procedures guide the unit's environmental teams to identify water pollutants that may have detrimental impacts over water bodies/ecosystems and human health, considering water discharged characteristics, applicable local and Brazilian laws, the operational process, and the type of effluent treatment used. The classification of potential water pollutants is conducted according to applicable local and Brazilian laws for each unit. In Brazil, CONAMA Resolutions 430 and 357 set standards for water discharged into bodies of water, while Ministry of Health Ordinance No. 888 establishes water potability standards. Local laws vary among Brazilian states; for example, São Paulo State's Decree 8468 addresses the prevention and control of environmental pollution and applies to seven units located in this state. The main metrics used to identify and classify potential water pollutants are milligrams per liter (mg/L) to determine the concentration of substances in the water, and tons to calculate total emissions to water (substance concentration multiplicate by water flow). All Klabin units monitor 100% of their water discharge quality daily, including parameters such as BOD, COD, TSS, and temperature. Other parameters, including cadmium, mercury, nickel, and other relevant substances, are measured yearly or more frequently.
[Fixed row]

(2.5.1) Describe how your organization minimizes the adverse impacts of potential water pollutants on water ecosystems or human health associated with your activities.

Row 1

(2.5.1.1) Water pollutant category

Select from:

☑ Inorganic pollutants

(2.5.1.2) Description of water pollutant and potential impacts

The main processes in the pulp and paper sector that have the potential to emit chemical pollutants are wood digestion, pulping, pulp washing, bleaching, and drying, maintenance operations using oils and other chemicals, storage of hazardous waste, storage of chemical products, floor washing in productive areas and sanitary and hygienic activities. Inorganic pollutants, formed by mineral acids, inorganic salts, heavy metals, and other metals, have a potential impact on water bodies, ecosystems, and human health. In ecosystems, inorganic pollutants can cause bioaccumulation, which potentiates the harmful effect of substances through the food chain. For human health, they can cause neurological problems and diseases in various organs. The emission of inorganic pollutants can occur, for example, through maintenance and cleaning activities in production areas, storage of waste and storage of chemical products. 100% of effluent generated at Klabin's units is treated considering strict quality standards before being discharged into water bodies.

(2.5.1.3) Value chain stage

Select all that apply

☑ Direct operations

☑ Upstream value chain

(2.5.1.4) Actions and procedures to minimize adverse impacts

Select all that apply

☑ Assessment of critical infrastructure and storage condition (leakages, spillages, pipe erosion etc.) and their resilience

☑ Implementation of integrated solid waste management systems

☑ Industrial and chemical accidents prevention, preparedness, and response

☑ Requirement for suppliers to comply with regulatory requirements

☑ Discharge treatment using sector-specific processes to ensure compliance with regulatory requirements

(2.5.1.5) Please explain

In Klabin's direct operations, the main procedures to manage potential impacts of inorganic pollutants, performed by units' maintenance and safety teams, include: assessment of critical infrastructure and storage condition of chemicals; industrial and chemical accidents prevention, preparedness, and response. Our units also have integrated solid waste management systems to avoid potential impacts from waste collection and storage, and effluents treatment plants that use processes to ensure the quality standards and the best practices. Internal audits conducted by the units' environmental teams are performed to ensure compliance and evaluate success of these procedures. Additionally, the success is assessed by monitoring inorganic substances before and after treatment, as well as in the water bodies receiving the discharge. In addition, the supply area yearly assesses all suppliers for their compliance with water-related guidelines, policies, regulatory requirements, and procedures, as outlined in the Requirements Book attached to the contract between Klabin and the supplier. We also use the EcoVadis system to assess suppliers with a substantial impact, including questions about their water pollution-related targets and performance. The success is evaluated through the supplier's EcoVadis score and any identified non-conformities related to water pollutants. Suppliers with a score of 36 or above and no non-conformities for water pollutants are considered engaged.
[Add row]

C3. Disclosure of risks and opportunities

(3.1) Have you identified any environmental risks which have had a substantive effect on your organization in the reporting year, or are anticipated to have a substantive effect on your organization in the future?

	Environmental risks identified
Climate change	*Select from:* ☑ Yes, both in direct operations and upstream/downstream value chain
Forests	*Select from:* ☑ Yes, both in direct operations and upstream/downstream value chain
Water	*Select from:* ☑ Yes, both in direct operations and upstream/downstream value chain
Plastics	*Select from:* ☑ Yes, both in direct operations and upstream/downstream value chain

[Fixed row]

(3.1.1) Provide details of the environmental risks identified which have had a substantive effect on your organization in the reporting year, or are anticipated to have a substantive effect on your organization in the future.

Climate change

(3.1.1.1) Risk identifier

Select from:
☑ Risk1

(3.1.1.3) Risk types and primary environmental risk driver

Policy

☑ Carbon pricing mechanisms

(3.1.1.4) Value chain stage where the risk occurs

Select from:

☑ Direct operations

(3.1.1.6) Country/area where the risk occurs

Select all that apply

☑ Brazil

(3.1.1.9) Organization-specific description of risk

An external factor with a possible impact on national organizations is the establishment of carbon pricing - a cap-and-trade system - by regulatory means in Brazil, as a way of boosting the transition to a low-carbon economy and promoting efficiency, competitiveness, and sustainability in organizations. In this market, greenhouse gas emissions will be taxed, which will increase Klabin's operating costs. Studies of carbon pricing markets in economies like Brazil indicate Klabin's potential exposure to rates of USD5 to USD13/tCO2. This rate would impact, in the short term, scope 1 emissions from the main industrial units (Puma, Otacílio Costa, Goiana and Monte Alegre), given their scale. In its impact analyses, the company adopts a minimum cost of R40 per ton of carbon equivalent. The transition risk associated with carbon market regulation, especially through the cap-and-trade system, refers to the challenges and financial impacts that companies, including those in the pulp and paper industry, may face when adapting to a regulatory environment that limits carbon emissions.

(3.1.1.11) Primary financial effect of the risk

Select from:

☑ Increased direct costs

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

☑ Short-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:

☑ Virtually certain

(3.1.1.14) Magnitude

Select from:

☑ Medium

(3.1.1.16) Anticipated effect of the risk on the financial position, financial performance and cash flows of the organization in the selected future time horizons

To analyze climate risk, the parameters of degree of impact and level of probability (vulnerability) were assessed for each of the company's operating units. The climate scenarios indicated are related to the probability score. In 2023, the draft law regulating the carbon market in Brazil was approved and the next steps for implementing the law are being studied. Klabin participates in different forums that address/debate this issue in Brazil, closely following this agenda. Klabin has four main industrial units (Otacilio Costa, Goiana, Puma and Monte Alegre) that have significant carbon emissions and are liable to be regulated by carbon pricing. In 2023, the above industrial units emitted around 645,865 tCO2e – Scope 1. The Puma unit produces 3 types of pulp for the market; at the Monte Alegre and Otacílio Costa unit packaging paper is produced, such as cardboard and kraft paper; and Goiana unit produces corrugated cardboard packaging, industrial bags, and recycled paper. Given this scenario of regulatory risk and the financial impact, a series of actions were taken by Klabin: (i) inclusion of carbon pricing risk in the analysis and, subsequently, the company's risk matrix (ii) internal carbon pricing studies to identify the cost of the financial impact for the company (iii) study of a pipeline of low carbon technologies that should be implemented in the medium and long term to reduce carbon emissions. To identify and prioritize technologies, the company developed a Marginal Abatement Cost Curve that makes it possible to evaluate the most cost-effective technologies. Example of technologies: that turns wood waste into gas. This gas can be used in the industrial process, increasing the use of renewable energy. (iv) development of a robust, science-based carbon reduction target. The lower the emissions the less exposed to the impact of carbon pricing the company will be. Klabin S.A commits to reduce scope 1 and 2 GHG emissions 25% per ton of pulp, paper and packaging by 2025 from a 2019 base year; and 49% until 2035 Considering all the above actions, Klabin results in the internal approval of a series of technologies that will be implemented to reduce emissions and the financial impact of a possible carbon pricing. And the approval of a science-based carbon reduction target. It is important to mention that these risks are included in the company's risk matrix, with the risk management and financial area accompanying the mitigation actions.

(3.1.1.17) Are you able to quantify the financial effect of the risk?

Select from:

☑ Yes

(3.1.1.19) Anticipated financial effect figure in the short-term – minimum (currency)

33406046

(3.1.1.20) Anticipated financial effect figure in the short-term – maximum (currency)

33406046

(3.1.1.25) Explanation of financial effect figure

Klabin has been adopting carbon pricing methodologies to prepare for and reduce the possible impacts of carbon regulation in Brazil. In addition (to the analysis of the financial impact of a possible cap and trade or carbon tax in Brazil - as shown), the company evaluates a series of low carbon technologies for the medium and long term.

(3.1.1.26) Primary response to risk

Pricing and credits

☑ Implement internal price on carbon

(3.1.1.27) Cost of response to risk

186945000

(3.1.1.28) Explanation of cost calculation

To mitigate the risk of carbon costs, the company has been investing in low carbon technologies. The lower the emission - the lower the cost / financial impact. From 2020 to 2030 the company has a pipeline of seven low carbon technologies that will be implemented to reduce emissions. From this pipeline, until 2021, three technologies were implemented biomass gasification – CAPEX BRL 141,486,000; tail oil – CAPEX BRL 21,500,000; and boiler fuel exchange (oil for biomass) – CAPEX BRL 23,959,000. The other technologies and its CAPEX are treated as confidential by the company. These technologies have enabled the company to achieve its emission reduction target, approved by Science Based Target, and also to reduce exposure to the cost of carbon regulation. An example we can mention the tail oil technology, installed in the Puma II Project will have a process of extraction and use of Tall Oil as a source of energy for the unit. Tall Oil is a by-product of the pulp production process, origin

(3.1.1.29) Description of response

Klabin closely follows the discussions on the establishment of a carbon regulation in Brazil. As mentioned, the Brazilian government, within the scope of the Partnership for Market Readiness - World Bank project, studied in the last years the possibility of implementing a tax or cap and trade in the country. Thus, the company's expectation is that in the next 4 ou 5 years the Brazilian government may adopt carbon pricing in the country's climate policy. As a result, the company has

robust strategies and technologies pipeline to reduce emissions and consequently reduce the operating cost by paying a fee or purchasing an allowance. Klabin has a MACC for medium and long-term assessment of other technologies to reduce carbon emissions. A MACC permits an easy-to-read visualization of various mitigation options or measures organized by a single, understandable metric: economic cost of emissions abatement. It is possible to assess/compare the (i) cost of regulation x (ii) the cost of investing in low carbon technology – BRL/tCO2 both. From this analyse it is possible to understand that for Klabin it is more economically attractive to invest in low carbon technologies than to pay a carbon price considering the company's reference value - BRL 40.

Forests

(3.1.1.1) Risk identifier

Select from:

☑ Risk2

(3.1.1.2) Commodity

Select all that apply

☑ Timber products

(3.1.1.3) Risk types and primary environmental risk driver

Acute physical

☑ Wildfires

(3.1.1.4) Value chain stage where the risk occurs

Select from:

☑ Direct operations

(3.1.1.6) Country/area where the risk occurs

Select all that apply

☑ Brazil

(3.1.1.9) Organization-specific description of risk

Klabin has a complete study on current and future climate conditions and the impact of climate change in it forestry operation regions. The increase in average temp. and changes in the frost regime can cause hot and dry conditions sufficient to favor the occurrence and protection of fires and forest fires. The risk of forest fire is one of the most relevant risks for Klabin, as it can affect the company's main raw material, the availability of wood. Specific studies developed by Klabin based on projection of historical data - humidity, temp. and observing the trend of temp. increase, revealed that, in 2035, 51% of the days of the year would be at high or very high risk of fire, according to the standardization of risk classes in the Monte Alegre Formula. Furthermore, the probability of heat waves intensifying and becoming more frequent increases across climate scenarios (SSP1-2.6 and SSP3-7.0) and time horizons (2030 and 2050). Temp. increase with low change in the rain distribution regime may imply an increase of evapotranspiration/risk of water deficit. This is related to decrease in wood production explained by the SPPA (System soil-plant-atmosphere): under water stress, plants reduce the stoma opening to reduce transpiration, however, photosynthesis is interrupted and impacts tree growth. The annual average loss of productivity (ton of wood) predicted until 2035 is 3% for eucalyptus and 5% for pine, if no measures are taken.

(3.1.1.11) Primary financial effect of the risk

Select from:

☑ Change in revenue mix and sources

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

☑ Short-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:

☑ Likely

(3.1.1.14) Magnitude

Select from:

☑ High

(3.1.1.16) Anticipated effect of the risk on the financial position, financial performance and cash flows of the organization in the selected future time horizons

In recent years, there have been no major losses of area due to fires. Therefore, increase in average temperature and changes in the rainfall regime could cause hot and dry conditions sufficient to favour the occurrence and proliferation of forest fires which would jeopardize Klabin's forest plantations. Klabin's Risk Management Specialists have mapped this risk as high, due to potencial financial impact and vulnerability of damage periods. In Monte Alegre Farm - PR, Klabin had 21 monitoring

towers covering approximately 200k ha of forests, in Santa Catarina Klabin had 12 monitoring towers covering approximately 150k ha of forests. In 2022, 18 new towers were built with a height of 60 to 69 meters with a range of high definition cameras (25 km away) that can support services up to 45 km away, increasing coverage to approximately 550k ha. The benefits of monitoring are automatic monitoring with cameras for automatic detection of events and their location, to trigger the control teams; In addition, synergy gains not accounted for in the project, such as detection of forest anomalies (eg detection of damage caused by forest pests or estimation) and heritage monitoring. In 2023, a total of 59 fires focus were registered in Paraná and Santa Catarina and Rio Grande do Sul units (in São Paulo no fire focus were registered) with 116 hectares damage. This represents 0.015% of company property. This was not a substantive impact in area and/or financially, once it was less than 150 MM of Klabin's 2023 Revenue. Meanwhile the precaution is valid for future scenarios, as it impact on human life protection, wildfires can threaten communities, properties, and human lives. It prevents the destruction of habitats and the loss of species and reduces economic damage, including losses to properties, crops, and infrastructure. The smoke from wildfires can affect air quality, causing respiratory problems and other public health issues. Additionally, the large amounts of carbon released into the atmosphere due to wildfires contribute to climate change and global warming. Monitoring helps quantify these emissions and develop strategies to mitigate them. Early detection, with monitoring systems help detect fires early on, allowing for a faster and more effective response, which is crucial to prevent small outbreaks from turning into large fires. These reasons underscore the importance of continuous and effective wildfire monitoring to protect lives, property, and the environment.

(3.1.1.17) Are you able to quantify the financial effect of the risk?

Select from:

☑ Yes

(3.1.1.19) Anticipated financial effect figure in the short-term – minimum (currency)

2455488

(3.1.1.20) Anticipated financial effect figure in the short-term – maximum (currency)

1085095233

(3.1.1.25) Explanation of financial effect figure

In the year 2023, the loss of area due to forest fires was 116 hectares. Klabin's average implementation cost for a forestry area is R10,584.00 per hectare. Therefore, multiplying by 116 hectares we have the value of R1,227,744.00, however, this cost is doubled since the implementation must be carried out twice, initially and after burning, therefore resulting in a loss of R2,455. 488.00 In this sense, the company has been following and monitoring the history of fire events in the regions of PR, SP, SC and RS. However, these fires are not representative when we look at Klabin's total area. Therefore, to assess the potential financial impact of this risk for the company, together with the risk area and the forestry area, we are considering a catastrophic scenario with an impact on 10% of the planted area in each region. Other assumptions used are: The variation in the probability of forest fire in each region only affects the frequency of potential fires of this magnitude in the evaluated time horizon. It was assumed that 100% of the trees in the burned area are lost. 1 event every 10 years was considered. An average cost (R) per ton of own pine and eucalyptus (R 142.74) was considered based on values shared by the forestry team. We consider a PPC - post-cut period of 40 to 50 days. Intensity: 10% of the planted area (burned area lost area). Frequency: As the last event of great magnitude was in 1960, the frequency of occurrence of 1 event until 2050Average cost

per ton (euca and pine) was considered. Financial risk: 1085095233.10954. To analyze climate risk, the parameters of degree of impact and level of probability (vulnerability) were evaluated for each operating unit of the company. The climate scenarios indicated are related to the probability score. For Physical Risks, the IPCC AR6 (2022) scenarios were evaluated: SSP1-2.6 and SSP3-7.0

(3.1.1.26) Primary response to risk

Diversification

☑ Improve fire management systems in sourcing regions

(3.1.1.27) Cost of response to risk

33070140

(3.1.1.28) Explanation of cost calculation

The cost involved in responding to this risk includes annual asset surveillance budgets. Heritage surveillance occurs in different formats in forestry units. For Santa Catarina and Rio Grande do Sul, this surveillance is carried out by a third-party company, whose contract is for R1,105,845.00 monthly, that is, R13,270,140.00 annually. For the states of Paraná and São Paulo, property surveillance takes place by its own team, with the budget for the property surveillance area for the year 2023 being R19.8 MM. Adding these two values, we have an investment of R33,070,140.00 annually in forestry heritage surveillance. Forest surveillance plays a fundamental role in environmental protection, public safety, economic stability and combating climate change. In terms of fire prevention and early detection, continuous surveillance allows for early detection of fires, enabling rapid response to prevent their spread.

(3.1.1.29) Description of response

In terms of prevention and detection of fires, continuous surveillance allows for early detection of fires, enabling a rapid response to prevent their spread. Klabin invests more than 33 MM per year in forest surveillance. The main guideline of Forestry Asset Security is to monitor the company's assets and maintain relationships with the community. The circulation programs within the regions are passed on to the guards, who, as they pass through the forests, collect information such as: the condition of access roads, irregular access, hunters, fishermen, problems with neighbors, protection and combating of fires, pests and diseases, among others. Through constant monitoring, including some regular shifts on weekends or at night, broad coverage of events that may occur within the company's areas is achieved. In this case, appropriate measures are taken, ranging from informative conversations to filing police reports with the civil or environmental police. The company's main concern is to preserve its assets and the environment, in harmony with the community in which it operates, as well as to guide its actions with neighbors, who assist in controlling the areas, acting as multiplier agents. Due mainly to weather conditions, fires do not occur with the same frequency during all months of the year. Generally, after the frosts, the dry season occurs for a critical period that extends from July to mid-October. Likewise, there are places where fires occur more frequently, such as those near highways, railways, and near agricultural areas. In this places and during these period, vegetation becomes susceptible to fires and the monitoring is intensify. Klabin had more than 30 monitoring towers covering approx. 350k ha of forests. Trained teams, adequate equipment, rapid mobilization, and an attack plan already established are all that's necessary to carry out efficient firefighting. Trucks are constantly supplied with fuel and firefighters are on call during critical period

Water

(3.1.1.1) Risk identifier

Select from:

☑ Risk3

(3.1.1.3) Risk types and primary environmental risk driver

Chronic physical

☑ Water stress

(3.1.1.4) Value chain stage where the risk occurs

Select from:

☑ Direct operations

(3.1.1.6) Country/area where the risk occurs

Select all that apply

☑ Brazil

(3.1.1.7) River basin where the risk occurs

Select all that apply

☑ Other, please specify

(3.1.1.9) Organization-specific description of risk

The Goiana unit is in a water-stressed area classified by the WRI Aqueduct tool. Klabin has identified the increased water stress in the Capibaribe-Mirim river as a risk to meet the water demand to produce recycled paper, corrugated board, and paper bags. The Goiana unit represented around 5.4% of Klabin's total production and 7.1% of total revenue in 2023. The Goiana unit sources water from two sources: groundwater and surface water. Together, these sources account for less than 1% of Klabin's total water withdrawal. Considering that water stress is measured by the ratio of total water withdrawals to available renewable surface and groundwater supplies, this water stress risk can affect the availability of water for Goiana's use, directly impacting Klabin's production capacity. This scenario is

particularly severe during the months of October, November, and December, which coincide with the drought period. Furthermore, a study conducted by Klabin revealed that an interruption of 20% of total water withdrawals per day for one month is the maximum period that can be impacted by this risk. Additionally, the magnitude of the potential impact considers that the Goiana unit is the only Klabin unit that produces recycled paper, corrugated board, and paper bags. Therefore, we use this information to calculate the potential financial impact.

(3.1.1.11) Primary financial effect of the risk

Select from:

☑ Disruption in production capacity

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

☑ Short-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:

☑ Likely

(3.1.1.14) Magnitude

Select from:

☑ Medium-low

(3.1.1.16) Anticipated effect of the risk on the financial position, financial performance and cash flows of the organization in the selected future time horizons

Klabin conducted specific studies considering future climate scenarios for the regions in which it operates. To identify climate risks and opportunities, the company: (i) developed specific studies considering future climate scenarios for the regions where it has operations; (ii) utilized studies available in the literature; and (iii) drew upon the company's history and records of previously experienced climate events. In recent years, there have been no major droughts in the Goiana region. However, as this risk is expected to become more frequent due to climate change, the study analyzed the impact, vulnerability, and probability of reduced water availability due to droughts at Klabin units. The analysis considered indicators such as reduced precipitation, annual rainfall variability, and periods of heat waves. An increase in average temperature and changes in the rainfall pattern could lead to hot conditions, raising the likelihood of droughts in the region, which would impact the Goiana unit. The current financial impact was calculated as BRL 20,9 MM. The financial impact of this risk in the short term was calculated as BRL 40 MM for the

SSP1-2.6 scenario and BRL 39 MM for the SSP3-7.0 scenario. Klabin's Risk Management Specialists have assessed this risk as medium-low, considering the potential financial impact and the vulnerability of damage periods.

(3.1.1.17) Are you able to quantify the financial effect of the risk?

Select from:

☑ Yes

(3.1.1.19) Anticipated financial effect figure in the short-term – minimum (currency)

20931222

(3.1.1.20) Anticipated financial effect figure in the short-term – maximum (currency)

20931222

(3.1.1.25) Explanation of financial effect figure

*The financial impact was estimated considering the reduction of production capacity during the interruption by 20% of total water withdrawals per day for one month. Further, we consider that the interruption by 20% of total water withdrawals impact by 20% of total production capacity. In 2023, the total revenue of Goiana unit was BRL 1,273,316,000. The financial impact of reduction of production capacity during this period is BRL 20,931,222 (1,237.31 million of total revenue per year / 365 working days per year * interruption by 20% of total water withdrawals * 30 days/month).*

(3.1.1.26) Primary response to risk

Policies and plans

☑ Develop drought emergency plans

(3.1.1.27) Cost of response to risk

1200000

(3.1.1.28) Explanation of cost calculation

This cost takes into account the search for alternatives sources for water withdrawal through groundwater and rainwater. Initially, the drought emergency plan provided for the drilling of 3 deep wells. Each deep well current costs approximately BRL 300,000. The Goiana unit has already drilled one well, so there are currently two wells planned for drilling, which a cost of BRL 600,000. In 2023, a study also was included for the installation of rainwater collection. The initial cost estimated for the implementation of a robust system for non-potable uses is BRL 500,000. Therefore, the current cost of alternatives for water collection at the Goiana unit is BRL 1,200,000. In addition, the unit made investments to improve the wastewater treatment system in 2023. With these investments, the Goiana unit will have greater potential for water reuse and will have other possibilities to meet our water demand in the event of increased water stress in this location.

(3.1.1.29) Description of response

Surface freshwater is crucial for recycled paper production at the Goiana unit, even though it represents less than 1% of Klabin's total water withdrawals. Goiana is located in a water-stressed area. From 2022 to 2023, this unit reduced its water withdrawals by 22.3% due to improvements in water usage and changes in its recycled paper strategic planning. In 2023, the average freshwater intake per day was around 81.3 m³/h, with more than 96% of this volume coming from surface water. The unit has a drought emergency plan that includes drilling three renewable deep wells (200-250 meters deep) in the region to meet the unit's water demand. Each deep well currently costs approximately BRL 300,000. The Goiana unit has already drilled one well, so there are currently two wells planned for drilling, with a total cost of BRL 600,000. Additionally, the plan aims to reduce the unit's specific water use from 3.8 m³/t to less than 2.0 m³/t. In 2023, Goiana's specific water use was 2.56 m³/t, a 13% reduction compared to 2022. Currently, more than 60% of the wastewater treated at the unit is returned to the recycled paper production machines, further reducing the need for freshwater withdrawals. The implementation of the plan began at the end of 2021, and one renewable deep well was drilled in March 2022. The next deep well is scheduled to be drilled in 2024, as the operation and water withdrawal of the first deep well are being analysed before proceeding with the next one. The final deep well will only be drilled if the flow of the previous ones does not guarantee 50% of the total surface water used by the unit. In 2023, a study was also conducted for the installation of a rainwater collection system. The initial cost estimate for implementing a robust system for non-potable uses is BRL 500,000. It is important to note that the Goiana unit already has a backup water lagoon that could supply water for approximately 20 days in case of a drought.

Plastics

(3.1.1.1) Risk identifier

Select from:

☑ Risk4

(3.1.1.3) Risk types and primary environmental risk driver

Market

☑ Changing customer behavior

(3.1.1.4) Value chain stage where the risk occurs

Select from:

☑ Downstream value chain

(3.1.1.6) Country/area where the risk occurs

Select all that apply

☑ Brazil

(3.1.1.9) Organization-specific description of risk

There is a growing demand for products that are renewable, recyclable and plastic-free. Multilayer materials containing plastics are challenging to recycle and, in general, the recycling chain is limited, with low added value and materials that are difficult to collect separately. Brands and end consumers are looking for packaging that has high recyclability rates as well as eliminating plastics. Klabin has been developing plastic-free solutions as well as materials that are designed based on circular design principles. This is a risk that exists in a small part of Klabin's portfolio and the challenge is to develop the solutions in such a way as not to make the final product financially unviable.

(3.1.1.11) Primary financial effect of the risk

Select from:

☑ Increased production costs

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

☑ Medium-term

☑ Long-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:

☑ Unknown

(3.1.1.14) Magnitude

Select from:

☑ Unknown

(3.1.1.16) Anticipated effect of the risk on the financial position, financial performance and cash flows of the organization in the selected future time horizons

The financial risk exists given the growing demand for plastic substitutes. This cost exists on the part of customers who want to replace packaging with plastic content or even layers of plastic and in order to finance this product transition, it is necessary to invest in research and development and change factory equipment. This cost, which is initially necessary, will in part be passed on to the end product, which will deliver greater added value than the conventional product.

(3.1.1.26) Primary response to risk

Infrastructure, technology and spending

☑ Increase investment in R&D

(3.1.1.29) Description of response

Klabin is a producer of forest-based materials and packaging. The growing demand from society and brands for products that replace plastic represents an opportunity for the entire sector of cellulose products companies. However, there are a number of materials that are already produced that contain plastics and that are difficult to recycle in the recycling chain, whether due to a lack of recycling infrastructure, difficulties in collection and segregation, or even marketing. Operating in this scenario poses financial challenges due to the need for research and development and for the end consumer to realize the value of this product, which can be more expensive.
[Add row]

(3.1.2) Provide the amount and proportion of your financial metrics from the reporting year that are vulnerable to the substantive effects of environmental risks.

Climate change

(3.1.2.1) Financial metric

Select from:

☑ Revenue

(3.1.2.2) Amount of financial metric vulnerable to transition risks for this environmental issue (unit currency as selected in 1.2)

78292415

(3.1.2.3) % of total financial metric vulnerable to transition risks for this environmental issue

Select from:

☑ Less than 1%

(3.1.2.4) Amount of financial metric vulnerable to physical risks for this environmental issue (unit currency as selected in 1.2)

1855438750

(3.1.2.5) % of total financial metric vulnerable to physical risks for this environmental issue

Select from:

☑ 1-10%

(3.1.2.7) Explanation of financial figures

Klabin carried out specific studies considering future climate scenarios for the regions in which it operates. To identify climate risks and opportunities, the company: (i) developed specific studies considering future climate scenarios for the regions in which it operates; (ii) used studies available in the literature; and (iii) based itself on the company's history and records of previous climate events. For transition risks, the risks of increased costs related to exports to countries with more advanced climate regulations are being considered, based on the volume of pulp and paper exported to the European Union, linked to the Carbon Border Adjustment Mechanism (CBAM); the risk of carbon pricing - Cap & Trade, considering the company's units that emit more than 25,000 tCO2e and the risk of not meeting the commitments of the climate/ESG agenda. Totaling R78.3 million, or 0.43% of net revenue in 2023 (R18,024 million). For physical risks, the 7 risks prioritized by Klabin in the TCFD study are being considered: Landslides in operational areas, factory flooding, reduced water availability, forest fires, roofing of buildings and damage to infrastructure, shortage of wood at factories and the increase in energy tariffs due to national electricity rationing, totaling a potential financial impact of R 1.9 billion, or 10.3% of net revenue in 2023.

Forests

(3.1.2.1) Financial metric

Select from:

☑ Revenue

(3.1.2.2) Amount of financial metric vulnerable to transition risks for this environmental issue (unit currency as selected in 1.2)

0

(3.1.2.3) % of total financial metric vulnerable to transition risks for this environmental issue

Select from:

☑ Less than 1%

(3.1.2.4) Amount of financial metric vulnerable to physical risks for this environmental issue (unit currency as selected in 1.2)

2455488

(3.1.2.5) % of total financial metric vulnerable to physical risks for this environmental issue

Select from:

☑ Less than 1%

(3.1.2.7) Explanation of financial figures

In the year 2023, the loss of area due to forest fires was 116 hectares. Klabin's average implementation cost for a forestry area is R10,584.00 per hectare. Therefore, multiplying by 116 hectares we have the value of R1,227,744.00, however, this cost is doubled since the implementation must be carried out twice, initially and after burning, therefore resulting in a loss of R2,455. 488.00 Klabin's net corporate revenue in 2023 was R18,023,749,876.98 Dividing R2,455,488.00 by revenue we have 0.014%

Water

(3.1.2.1) Financial metric

Select from:

☑ Revenue

(3.1.2.2) Amount of financial metric vulnerable to transition risks for this environmental issue (unit currency as selected in 1.2)

0

(3.1.2.3) % of total financial metric vulnerable to transition risks for this environmental issue

Select from:

☑ Less than 1%

(3.1.2.4) Amount of financial metric vulnerable to physical risks for this environmental issue (unit currency as selected in 1.2)

191000000

(3.1.2.5) % of total financial metric vulnerable to physical risks for this environmental issue

Select from:

☑ 1-10%

(3.1.2.7) Explanation of financial figures

Klabin conducted specific studies considering future climate scenarios for the regions in which it operates. To identify climate risks and opportunities, the company: (i) developed specific studies considering future climate scenarios for the regions where it has operations; (ii) utilized studies available in the literature; and (iii) drew upon the company's history and records of previously experienced climate events. Besides physical and transition scenarios, the water stressed through WRI Aqueduct tool and relevance of units in company's financial and business strategic were used in unit's prioritization to water-related climate scenarios analysis. After prioritization, 12 units were considered relevant in company's financial and business strategic, considering risk of reduced water availability: PUMA, Monte Alegre, Goiana, Franco da Rocha, Horizonte, Jundiai-DI, Jundiai-TP, Rio Verde, Feira de Santana, Piracicaba, São Leopoldo and Suzano. The financial impact calculated for this risk is more than BRL 191,000,000 and the revenue, in 2023, was 18,024 MM. Therefore, the percentage of financial impact of drought risk in Klabin units is 1.06% of total Klabin's revenue.
[Add row]

(3.2) Within each river basin, how many facilities are exposed to substantive effects of water-related risks, and what percentage of your total number of facilities does this represent?

Row 1

(3.2.1) Country/Area & River basin

Brazil

☑ Other, please specify :Goiana River Basin

(3.2.2) Value chain stages where facilities at risk have been identified in this river basin

Select all that apply

☑ Direct operations

(3.2.3) Number of facilities within direct operations exposed to water-related risk in this river basin

1

(3.2.4) % of your organization's total facilities within direct operations exposed to water-related risk in this river basin

Select from:

☑ 1-25%

(3.2.10) % organization's total global revenue that could be affected

Select from:

☑ 1-10%

(3.2.11) Please explain

We classified all our facilities using WRI Aqueduct tool to identify their exposed about water stressed areas. To be considered as being exposed to substantive water risk the facilities need to classify on baseline water stress score of 20% or more in WRI Aqueduct tool and to represent more than 5% of Klabin's total revenue. That is why, Klabin has found the increased water stress in the Capibaribe-Mirim river to be a risk to meet the water demand to production of the recycled paper,

corrugated board, and paper bags, in Goiana unit. Goiana unit represents around 5.4% of Klabin's total production and 7.1% of total revenue. So, Goiana unit is exposed to water risk with the potential to have a substantive financial or strategic impact on our business. In this unit, there is a drought emergency plan that considers the drilling of renewable deep wells. In addition, the Goiana unit participates in Klabin's Water Management Working Group. The goal is to identify opportunities to reduce water withdrawal and consumption across all of Klabin's operations, focusing on improving water monitoring systems and transitioning to water-efficient and low water-intensity technologies and products. For example, one of the actions identified is a study to install rainwater harvesting next year. [Add row]

(3.3) In the reporting year, was your organization subject to any fines, enforcement orders, and/or other penalties for water-related regulatory violations?

(3.3.1) Water-related regulatory violations

Select from:

☑ No

(3.3.3) Comment

The Klabin keeps a legal area with environmental experts who monitor issues related to legal parameters. Moreover, Klabin has a permanent contract with an Environmental Advocacy Office aimed at preventive monitoring and advice on topics such as regulatory changes, including those related to water safety. [Fixed row]

(3.5) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?

Select from:

☑ No, but we anticipate being regulated in the next three years

(3.5.4) What is your strategy for complying with the systems you are regulated by or anticipate being regulated by?

In 2023, the draft law regulating the carbon market in Brazil was approved and the next steps for implementing the law are being studied. Klabin participates in different forums that address/debate this issue in Brazil, closely following this agenda. Klabin has four main industrial units (Otacilio Costa, Goiana, Puma and Monte Alegre) that have significant carbon emissions and are liable to be regulated by carbon pricing. In 2023, the above industrial units emitted around 645,865 tCO2e – Scope 1. The Puma unit produces 3 types of pulp for the market; at the Monte Alegre and Otacílio Costa unit packaging paper is produced, such as cardboard and kraft paper; and Goiana unit produces corrugated cardboard packaging, industrial bags, and recycled paper. Given this scenario of regulatory

*risk and the financial impact, a series of actions were taken by Klabin: (i) inclusion of carbon pricing risk in the analysis and, subsequently, the company's risk matrix (ii) internal carbon pricing studies to identify the cost of the financial impact for the company (iii) study of a pipeline of low carbon technologies that should be implemented in the medium and long term to reduce carbon emissions. To identify and prioritize technologies, the company developed a Marginal Abatement Cost Curve that makes it possible to evaluate the most cost-effective technologies. Example of technologies: that turns wood waste into gas. This gas can be used in the industrial process, increasing the use of renewable energy. (iv) development of a robust, science-based carbon reduction target. The lower the emissions the less exposed to the impact of carbon pricing the company will be. Klabin S.A commits to reduce scope 1 and 2 GHG emissions 25% per ton of pulp, paper and packaging by 2025 from a 2019 base year; and 49% until 2035 Considering all the above actions, Klabin results in the internal approval of a series of technologies that will be implemented to reduce emissions and the financial impact of a possible carbon pricing. And the approval of a science-based carbon reduction target. It is important to mention that these risks are included in the company's risk matrix, with the risk management and financial area accompanying the mitigation actions. Klabin closely follows the discussions on the establishment of a carbon regulation in Brazil. As mentioned, the Brazilian government, within the scope of the Partnership for Market Readiness - World Bank project, studied in the last years the possibility of implementing a tax or cap and trade in the country. Thus, the company's expectation is that in the next 4 ou 5 years the Brazilian government may adopt carbon pricing in the country's climate policy. As a result, the company has robust strategies and technologies pipeline to reduce emissions and consequently reduce the operating cost by paying a fee or purchasing an allowance. Klabin has a MACC for medium and long-term assessment of other technologies to reduce carbon emissions. A MACC permits an easy-to-read visualization of various mitigation options or measures organized by a single, understandable metric: economic cost of emissions abatement. It is possible to assess/compare the (i) cost of regulation x (ii) the cost of investing in low carbon technology – BRL/tCO2 both. From this analyse it is possible to understand that for Klabin it is more economically attractive to invest in low carbon technologies than to pay a carbon price considering the company's reference value - BRL 40. Klabin has been adopting carbon pricing methodologies to prepare for and reduce the possible impacts of carbon regulation in Brazil. In addition (to the analysis of the financial impact of a possible cap and trade or carbon tax in Brazil - as shown), the company evaluates a series of low carbon technologies for the medium and long term. *

(3.6) Have you identified any environmental opportunities which have had a substantive effect on your organization in the reporting year, or are anticipated to have a substantive effect on your organization in the future?

	Environmental opportunities identified
Climate change	*Select from:* ☑ Yes, we have identified opportunities, and some/all are being realized
Forests	*Select from:* ☑ Yes, we have identified opportunities, and some/all are being realized
Water	*Select from:*

	Environmental opportunities identified
	☑ Yes, we have identified opportunities, and some/all are being realized

[Fixed row]

(3.6.1) Provide details of the environmental opportunities identified which have had a substantive effect on your organization in the reporting year, or are anticipated to have a substantive effect on your organization in the future.

Climate change

(3.6.1.1) Opportunity identifier

Select from:

☑ Opp1

(3.6.1.2) Commodity

Select all that apply

☑ Not applicable

(3.6.1.3) Opportunity type and primary environmental opportunity driver

Energy source

☑ Use of low-carbon energy sources

(3.6.1.4) Value chain stage where the opportunity occurs

Select from:

☑ Direct operations

(3.6.1.5) Country/area where the opportunity occurs

Select all that apply

☑ Brazil

(3.6.1.8) Organization specific description

Klabin has important market recognition for its commitment to sustainable development and also for the company's actions in minimizing the impacts of its operations. Since 2003, Klabin has been investing in a cleaner and more sustainable energy matrix. To this end, within its history of operations, it has constantly promoted actions to reduce its greenhouse gas emissions as indicated in the previous items. Several actions over the years have resulted in the reduction of emissions of more than 205 thousand tons of CO2eq. Over the years, Klabin has constantly invested in reducing consumption of fossil fuels and also in increasing the energy efficiency of the industrial plants. These investments have made Klabin's energy matrix cleaner and based predominantly on the use of renewable fuels - such as bark, wood chips and black liquor, for use in the boilers. Actions like these are important for the company, because besides reducing operational costs, they contribute to a more renewable national energy matrix, aligning these actions with the UN Sustainable Development Goals.

(3.6.1.9) Primary financial effect of the opportunity

Select from:

☑ Reduced direct costs

(3.6.1.10) Time horizon over which the opportunity is anticipated to have a substantive effect on the organization

Select all that apply

☑ Medium-term

(3.6.1.11) Likelihood of the opportunity having an effect within the anticipated time horizon

Select from:

☑ Likely (66–100%)

(3.6.1.12) Magnitude

Select from:

☑ Medium-high

(3.6.1.14) Anticipated effect of the opportunity on the financial position, financial performance and cash flows of the organization in the selected future time horizons

Situation: Klabin purchase energy from renewable resources. Its energy matrix includes natural renewable sources. At the end of 2013, 80% of the energy used by the company was generated by these sources. Every year, strategies, targets and effective actions are defined in all the industrial plants for gains in energy efficiency. Task: Over the years, Klabin has constantly invested in reducing consumption of fossil fuels and also in increasing the energy efficiency of its industrial plants. These investments have made Klabin's energy matrix cleaner and based predominantly on the use of renewable fuels - such as bark, wood chips and black liquor, for use in the boilers. All these activities in favor of sustainability are evidence of Klabin's commitment to reduce emissions of greenhouse gases generated by the company. Action: In recent years, some actions have been taken by the company in order to reduce the consumption of heavy fuel oil and consequently the direct emissions. In 2008 we changed 2 Heavy oil Boilers for a Biomass boiler in Monte Alegre Mill and did the same action in Otacilio Costa mill (2014), Correia Pinto mill (2012) and Angatuba mill (2015). In 2020 the Puma Tall Oil plant went into operation to replace the burning of fuel oil in the lime kilns, at the Piracicaba unit, the new biomass boiler, started in 2021, replaces one fuel oil boiler and three natural gas boilers. In 2022, the biomass gasification in the Puma unit significantly reduced the consumption of fuel oil in the lime kilns, in addition to this, the company also had a good result in the replacement of fuel oil by tall oil tar in the Correia Pinto lime kiln. In 2023, Unit Puma operated its biomass gasification plant in one of its furnaces throughout the year, reducing fuel oil consumption. Additionally, three industrial-scale tests were conducted using bio-oil in the lime kilns at Unit Monte Alegre, completely replacing fuel oil during equipment operation.

(3.6.1.15) Are you able to quantify the financial effects of the opportunity?

Select from:

☑ Yes

(3.6.1.19) Anticipated financial effect figure in the medium-term - minimum (currency)

170954357.38

(3.6.1.20) Anticipated financial effect figure in the medium-term - maximum (currency)

170954357.38

(3.6.1.23) Explanation of financial effect figures

Estimated value referring to the quantity of fuel oil that the organization would stop consuming (replacing with fossil fuels) if there were regulations that demand the reduction of atmospheric emissions and increase of the clean matrix of fuels for generation of energy. This value only estimates the replacement of the fuel by another renewable source (biomass residues). This impact is considered medium-high, since the estimated specific cost difference for fuel use is different (specific cost of estimated fuel oil is more expensive than cost with biomass). It is important to mention that this estimated value does not consider the costs necessary to change technologies for fuel substitution. This calculation considers the replacement of the total consumption of fuel oil by the organization (87,534.2 tonnes in 2023)

*for biomass waste to produce the same amount of energy (GJ), considering the specific cost of the oil in approximately BRL 1,953 per ton. 87,534.2 * BRL 1,953 BRL 170,954,357.38*

(3.6.1.24) Cost to realize opportunity

39159974.8

(3.6.1.25) Explanation of cost calculation

*Cost to realize opportunity: BRL 39,159,974.8 Estimated value representing the cost for the use of renewable fuel (biomass residue) in the replacement of fuel oil, not considering the need for replacement of new technology equipment Result: These actions have resulted in the reduction of more than 205 thousand tons of CO2eq over the years, reinforcing Klabin's commitment to minimize the impacts of its operations. Explanation of cost calculation: Fuel oil consumed * PCI GJ 87,534.2 tonnes * 40.2 GJ/t 3,518,876.2 GJ GJ / Biomass PCI Biomass that would be consumed 3,518,876.2 GJ / 16.338 GJ/t 215,379.9 tonnes Humid volume of biomass consumed 215,379.9 tonnes / 0.55 391,599.7 tonnes Cost to realize this opportunite biomass * cost of biomass fuel 391,599.7 tonnes * BRL 99.00 BRL 38,768,375*

(3.6.1.26) Strategy to realize opportunity

Situation: Klabin purchase energy from renewable resources. Its energy matrix includes natural renewable sources. At the end of 2013, 80% of the energy used by the company was generated by these sources. Every year, strategies, targets and effective actions are defined in all the industrial plants for gains in energy efficiency. Task: Over the years, Klabin has constantly invested in reducing consumption of fossil fuels and also in increasing the energy efficiency of its industrial plants. These investments have made Klabin's energy matrix cleaner and based predominantly on the use of renewable fuels - such as bark, wood chips and black liquor, for use in the boilers. All these activities in favor of sustainability are evidence of Klabin's commitment to reduce emissions of greenhouse gases generated by the company. Action: In recent years, some actions have been taken by the company in order to reduce the consumption of heavy fuel oil and consequently the direct emissions. In 2008 we changed 2 Heavy oil Boilers for a Biomass boiler in Monte Alegre Mill and did the same action in Otacilio Costa mill (2014), Correia Pinto mill (2012) and Angatuba mill (2015). In 2020 the Puma Tall Oil plant went into operation to replace the burning of fuel oil in the lime kilns, at the Piracicaba unit, the new biomass boiler, started in 2021, replaces one fuel oil boiler and three natural gas boilers. In 2022, the biomass gasification in the Puma unit significantly reduced the consumption of fuel oil in the lime kilns, in addition to this, the company also had a good result in the replacement of fuel oil by tall oil tar in the Correia Pinto lime kiln. In 2023, Unit Puma operated its biomass gasification plant in one of its furnaces throughout the year, reducing fuel oil consumption. Additionally, three industrial-scale tests were conducted using bio-oil in the lime kilns at Unit Monte Alegre, completely replacing fuel oil during equipment operation.

Forests

(3.6.1.1) Opportunity identifier

Select from:

☑ Opp2

(3.6.1.2) Commodity

Select all that apply

☑ Timber products

(3.6.1.3) Opportunity type and primary environmental opportunity driver

Resource efficiency

☑ Cost savings

(3.6.1.4) Value chain stage where the opportunity occurs

Select from:

☑ Direct operations

(3.6.1.5) Country/area where the opportunity occurs

Select all that apply

☑ Brazil

(3.6.1.8) Organization specific description

Forest Transportation is crucial for connecting the Forest Area and Fabric. Forest roads are essential for labor traffic and production flow. Road construction is the largest investment in forest harvesting. Excessive road openings and inadequate planning increase the impact on forests, reducing sustainability prospects and raising timber extraction costs. Klabin is developing a new road-planning concept to improve the company's operations. The challenge is to allocate the roads at strategic points. Briefly, when the forests where mainly composed by more than 20 years, with a larger diameter, and the harvesting machines capacity were limited, the road density was much higher, to enable them to get closer to the wood piles; now, the new concept is to open a strategic road, to where the piles will be directed. In this way, Klabin will have a decrease in road density. Besides, using technologies such as LiDAR for mapping of soil fragility and KplanR (software developed by Klabin) to simulate different scenarios of how the extraction will behave in the road network and how this will affect the operation costs. The cost of road construction and maintenance has a high financial impact (2.4). This being the case, it is possible to consider that the reduction of road density will bring lower costs with construction and maintenance, increase the productive area, and minimize possible environmental impacts - erosion and streams sedimentation – i.e. soil loss.

(3.6.1.9) Primary financial effect of the opportunity

Select from:

☑ Reduced direct costs

(3.6.1.10) Time horizon over which the opportunity is anticipated to have a substantive effect on the organization

Select all that apply

☑ Short-term

(3.6.1.11) Likelihood of the opportunity having an effect within the anticipated time horizon

Select from:

☑ Likely (66–100%)

(3.6.1.12) Magnitude

Select from:

☑ High

(3.6.1.14) Anticipated effect of the opportunity on the financial position, financial performance and cash flows of the organization in the selected future time horizons

The effect has not been financially quantified, as it cannot be separately identified; however, reducing the road density in the forest can bring several anticipated qualitative positive effects on the organization's financial performance and cash flows in the short term: 1.Reduction in Construction and Maintenance Costs: With fewer roads to build and maintain, the company will achieve significant savings in these costs. This will free up financial resources that can be directed to other critical areas or investments. 2. Increase in Productive Area: Reducing road density means more area available for tree planting and growth, increasing forest productivity and potential future revenue. 3. Improvement in Sustainability: Strategically positioned roads and lower road density will reduce negative environmental impacts such as erosion and sedimentation of watercourses. This improvement in sustainability can strengthen the company's image and attract investors concerned with ESG (environmental, social, and governance) criteria. 4. Operational Efficiency: Using technologies such as LiDAR and KplanR, the company can better plan extraction operations, reducing the time and costs associated with wood transportation. This will enhance operational efficiency and improve cash flows in the short term. In summary, the reduction in road density should result in an immediate improvement in Klabin's financial performance, with more robust cash flows due to cost reduction, increased operational efficiency, and potential productivity gains. 5. Reduce costs with the acquisition of new areas for the implementation of commercial plantations.

(3.6.1.15) Are you able to quantify the financial effects of the opportunity?

Select from:

☑ Yes

(3.6.1.17) Anticipated financial effect figure in the short-term - minimum (currency)

9415350

(3.6.1.18) Anticipated financial effect figure in the short-term – maximum (currency)

51450000

(3.6.1.23) Explanation of financial effect figures

*The cost of road construction and maintenance has a high financial impact (2.4). This being the case, it is possible to consider that the reduction of road density will bring lower costs with construction and maintenance, increase the productive area, and minimize possible environmental impacts - erosion and streams sedimentation – i.e. soil loss. From the analyses of harvesting plan executed by Klabin's Planning team in Paraná unit, the possibility to achieve a reduction of 30 meters per hectare (m/ha) of road density was identified. In 2023, Klabin PR was convert 170 hectares of roads in productive area and the road density is 73 m/ha. The expectation is to convert about 200 hectares in 2024 and the next 2 years. Klabin has already converted 762 hectares in 4 years. This goal will yield an opportunity cost of R35 million of land acquisition, at least. In Santa Catarina the density of roads is already close to ideal, at 30.4 m/ha, even so in 2023, there was a reduction of 13.33 hectares of roads in productive area. Calculation statement: 1 hectare R51,450 (average land cost in Parana and Santa Catarina state in 2023). Cost avoided (2023): 183 ha*51,450 9,415,350. Cost total avoided: 1,000 hectares is the project expectation (200 hectares/year in 5 years): 1,000*51,450 51,450,000*

(3.6.1.24) Cost to realize opportunity

400000

(3.6.1.25) Explanation of cost calculation

Pine and eucalyptus forests have a long cycle and the technology of harvesting and transport operations has undergone major changes in recent years, reducing the need for roads within the plots. In current reality, the ideal value according to literature studies is a density of forest roads of up to 30 meters per hectare. Having identified that Klabin's roads, especially those in the Paraná unit, are far from this reality (about 70 m/ha), it was stipulated that this density should be reduced. To this end, Klabin developed software called KplanR to analyze road construction and harvesting operation scenarios in advance, with the aim of optimizing operations and reducing costs for both operations. Inventory data, slope, compliance, position and length of roads, fixed and variable costs of harvesting and road construction operations are used as a basis for generating the scenarios. In the output variables, it is possible to change the average extraction distance on roads (gravel and non-gravel), volume (tons / m³) of the timber harvesting capacity, distance and type of material of the gravel pits for road construction. The cost to create KplanR was R400,000.00. Through this improvement in the road network, identified by KplanR, at the end of the harvest cycle and the beginning of the next one, the road network of the property is readjusted, leaving part of the roads as productive areas. This cost of transforming part of the roads into productive areas is being absorbed by the silviculture area during the time of soil preparation for the new cycle. In addition, there will be an avoided cost in the construction and maintenance of these roads and also in the acquisition of new areas for the implantation of new forests.

(3.6.1.26) Strategy to realize opportunity

There is a project in development to create a new concept of road-opening planning. The challenge is to allocate the roads at strategic points. Briefly, when the forests where mainly composed by more than 20 years, with a larger diameter, and the harvesting machines capacity were limited, the road density was much higher, to enable them to get closer to the wood piles; now, the new concept is to open a strategic road, to where the piles will be directed. In this way, Klabin will have a decrease in road density. From the analyses of harvesting plan executed by Klabin's Planning team in Paraná unit, the possibility to achieve a reduction to 30 m/ha of road density was identified. For this, Klabin developed a software called KplanR to analyze road construction and harvesting operation scenarios in advance, with the aim of optimizing operations and reducing costs for both operations. Inventory data, slope, compliance, position and length of roads, fixed and variable costs of harvesting and road construction operations are used as a basis for generating the scenarios. KplanR has been used by Klabin PR since 2020 and has already converted 762 hectares in 4 years. In 2020 the road density was 83 m/ha. In 2023, Klabin PR was convert 170 hectares of roads in productive area and the road density is 73 m/ha. The expectation is to convert about 200 hectares in 2024 and the next 2 years. The KplanR started operating in Santa Catarina in 2023. The density of roads in Klabin SC is already close to ideal, at 30.4 m/ha, even so in 2023, there was a reduction of 13.33 hectares of roads in productive area. Today, the greatest difficulty and cost in the forestry sector is the acquisition of new areas for the implementation of forests. Therefore, this project is of utmost importance because, with the reduction in the density of roads, the company's effective planting area increases, saving R51,450,000 of land acquisition, at least.

Water

(3.6.1.1) Opportunity identifier

Select from:

☑ Opp3

(3.6.1.3) Opportunity type and primary environmental opportunity driver

Resource efficiency

☑ Reduced water usage and consumption

(3.6.1.4) Value chain stage where the opportunity occurs

Select from:

☑ Direct operations

(3.6.1.5) Country/area where the opportunity occurs

Select all that apply

☑ Brazil

(3.6.1.6) River basin where the opportunity occurs

Select all that apply

☑ Other, please specify :Goiana River Basin

(3.6.1.8) Organization specific description

Klabin has a technical group that is working on water reduction actions. The group aims to identify opportunities in all Klabin's facilities to reduce water withdrawals and consumption, as Klabin has a 2030 target. The group identified actions in all Klabin's units, with a highlight on Goiana's study for closing the circuit of Paper Machine 24. This action has the potential to reduce water usage by 255,600 m³ per year. In 2023, the total surface water collected by the Goiana unit was 686,679 m³, meaning that the implementation of the project could result in a reduction of up to 37% in the unit's surface water withdrawal. The Goiana unit is the only Klabin facility that produces recycled paper, corrugated board, and paper bags, and it is located in a water-stressed area as classified by the WRI Aqueduct tool. Klabin has identified the increased water stress in the Capibaribe-Mirim River as a risk to meeting the water demand for this unit's production. Therefore, the opportunity to reduce surface water withdrawals from this river by about 37% would significantly mitigate the substantial impact associated with this risk.

(3.6.1.9) Primary financial effect of the opportunity

Select from:

☑ Reduced direct costs

(3.6.1.10) Time horizon over which the opportunity is anticipated to have a substantive effect on the organization

Select all that apply

☑ Short-term

(3.6.1.11) Likelihood of the opportunity having an effect within the anticipated time horizon

Select from:

☑ Likely (66–100%)

(3.6.1.12) Magnitude

Select from:

☑ Medium-low

(3.6.1.14) Anticipated effect of the opportunity on the financial position, financial performance and cash flows of the organization in the selected future time horizons

Klabin conducted specific studies to identify risks and opportunities considering future climate scenarios for the regions in which it operates. These studies identified drought and water stress risks that could affect water availability for Goiana's operations, directly impacting Klabin's production capacity. The closing the circuit of Paper Machine 24 can reduce the unit's surface water collection by up to 37% and the current financial impact associated with drought risk at the Goiana unit was calculated to be BRL 20.9 million. So, the opportunity to water reduction identified will significantly reduce the financial impact related to this risk

(3.6.1.15) Are you able to quantify the financial effects of the opportunity?

Select from:

☑ Yes

(3.6.1.17) Anticipated financial effect figure in the short-term - minimum (currency)

191700

(3.6.1.18) Anticipated financial effect figure in the short-term – maximum (currency)

191700

(3.6.1.23) Explanation of financial effect figures

*The implementation of the action will bring environmental and economic benefits to the Goiana unit. Considering the 2023 cost of water and wastewater treatment at BRL 0.75 per m3, the reduction would result in a total savings of BRL 191,700 per year in Goiana's direct costs (reduction of 255,600 m3 * BRL 0.75 per m3).*

(3.6.1.24) Cost to realize opportunity

3000000

(3.6.1.25) Explanation of cost calculation

The cost was calculated considering all the adaptations to Paper Machine 24 necessary to close the water circuit for paper production, including parts, equipment, hiring third parties, among other costs.

(3.6.1.26) Strategy to realize opportunity

Goiana is situated in a water-stressed region. From 2022 to 2023, this unit reduced its water withdrawals by 22.3% due to improvements in water management and adjustments in its recycled paper strategic planning. In 2023, the average daily freshwater intake was approximately 81.3 m³/h, with over 96% of this volume sourced from surface water. The unit has a drought emergency plan that includes reducing its specific water usage from 3.8 m³/t to below 2.0 m³/t. In 2023, Goiana's specific water usage was 2.56 m³/t, representing a 13% reduction compared to 2022. Therefore, the opportunity to close the circuit of Paper Machine 24 is an action justified by Goiana's drought emergency plan.
[Add row]

(3.6.2) Provide the amount and proportion of your financial metrics in the reporting year that are aligned with the substantive effects of environmental opportunities.

Climate change

(3.6.2.1) Financial metric

Select from:
☑ CAPEX

(3.6.2.2) Amount of financial metric aligned with opportunities for this environmental issue (unit currency as selected in 1.2)

57114000

(3.6.2.3) % of total financial metric aligned with opportunities for this environmental issue

Select from:
☑ 1-10%

(3.6.2.4) Explanation of financial figures

One of the opportunities prioritized in the TCFD study is access to credit lines and lower-cost financing for "sustainable" companies. To support Klabin's growth plan, the Company's financial strategy integrates debt management with favorable market conditions alongside performance, social, and environmental commitments. As part of this approach, Klabin has steadily increased the issuance of associated financial instruments, demonstrating the relevance of the prioritized opportunity. For the issue of Klabin's green bonds, several eligibility criteria were met, respecting the four pillars that make up the International Capital Markets Association's (ICMA) Green Bond Principles, attested to by Sustainalytics, acting as Second Party Opinion (SPO). The proceeds from the issues are necessarily earmarked for financing and/or refinancing, in whole or in part, investments and/or costs related to eligible Green Projects. In 2019, Klabin became the first Brazilian company to issue a bond

in this category with a maturity of 30 years (Notes 2049). In September 2017, the company had already issued a US500 million bond with a ten-year maturity (Notes 2027). Finally, in January 2020, the 2049 Notes issue was reopened (retap) to raise an additional US 200 million, totaling US 1.2 billion in Green Bonds. In 2023, BRL 57.1 million was invested in projects directly related to reducing emissions, energy efficiency, renewable energy and the preservation and recovery of forest areas. This represents 5.5% of the investments made with green bonds.

Forests

(3.6.2.1) Financial metric

Select from:

☑ Assets

(3.6.2.2) Amount of financial metric aligned with opportunities for this environmental issue (unit currency as selected in 1.2)

51450000

(3.6.2.3) % of total financial metric aligned with opportunities for this environmental issue

Select from:

☑ 1-10%

(3.6.2.4) Explanation of financial figures

*The planned acquisition of planting areas for the coming years (2024 to 2027 for Paraná and Santa Catarina units) is 14,300 hectares; the approximate amount invested will be R735,735,000. Calculation statement: 1 hectare R51,450 (average land cost in Parana and Santa Catarina state in 2023). Cost of purchasing area: 14,300 ha*51,450 R735,735,000 In 2023, Klabin PR was convert 170 hectares of roads in productive area. Klabin SC was convert 13.33 hectares of roads in productive area. The expectation is to convert about 200 hectares in 2024 and the next 2 years. Cost total avoided: 1,000 hectares is the project expectation (200 hectares/year in 5 years): 1,000*51,450 R51,450,000 R51,450,000 / R735,735,000 6,99% This cost represents around 7% of the total assets acquired in the coming years.*

Water

(3.6.2.1) Financial metric

Select from:

☑ CAPEX

(3.6.2.2) Amount of financial metric aligned with opportunities for this environmental issue (unit currency as selected in 1.2)

33923000

(3.6.2.3) % of total financial metric aligned with opportunities for this environmental issue

Select from:
☑ 1-10%

(3.6.2.4) Explanation of financial figures

One of the opportunities prioritized in the TCFD study is access to credit lines and lower-cost financing for "sustainable" companies. To support Klabin's growth plan, the Company's financial strategy integrates debt management with favorable market conditions alongside performance, social, and environmental commitments. As part of this approach, Klabin has steadily increased the issuance of associated financial instruments, demonstrating the relevance of the prioritized opportunity. For the issue of Klabin's green bonds, several eligibility criteria were met, respecting the four pillars that make up the International Capital Markets Association's (ICMA) Green Bond Principles, attested to by Sustainalytics, acting as Second Party Opinion (SPO). The proceeds from the issues are necessarily earmarked for financing and/or refinancing, in whole or in part, investments and/or costs related to eligible Green Projects. In 2019, Klabin became the first Brazilian company to issue a bond in this category with a maturity of 30 years (Notes 2049). In September 2017, the company had already issued a US500 million bond with a ten-year maturity (Notes 2027). Finally, in January 2020, the 2049 Notes issue was reopened (retap) to raise an additional US 200 million, totaling US 1.2 billion in Green Bonds. In total, BRL 33.9 million were specifically destined for opportunities to reduce water consumption and increase the quality of water resources with projects to preserve and recover forest areas in 2023, which represents 3.3% of the projects carried out and eligible for the green bonds acquired.
[Add row]

C4. Governance

(4.1) Does your organization have a board of directors or an equivalent governing body?

(4.1.1) Board of directors or equivalent governing body

Select from:

☑ Yes

(4.1.2) Frequency with which the board or equivalent meets

Select from:

☑ More frequently than quarterly

(4.1.3) Types of directors your board or equivalent is comprised of

Select all that apply

☑ Non-executive directors or equivalent

☑ Independent non-executive directors or equivalent

(4.1.4) Board diversity and inclusion policy

Select from:

☑ No

[Fixed row]

(4.1.1) Is there board-level oversight of environmental issues within your organization?

	Board-level oversight of this environmental issue
Climate change	*Select from:* ☑ Yes
Forests	*Select from:* ☑ Yes
Water	*Select from:* ☑ Yes
Biodiversity	*Select from:* ☑ Yes

[Fixed row]

(4.1.2) Identify the positions (do not include any names) of the individuals or committees on the board with accountability for environmental issues and provide details of the board's oversight of environmental issues.

Climate change

(4.1.2.1) Positions of individuals or committees with accountability for this environmental issue

Select all that apply

☑ Chief Executive Officer (CEO)

☑ Chief Sustainability Officer (CSO)

☑ Board-level committee

(4.1.2.2) Positions' accountability for this environmental issue is outlined in policies applicable to the board

Select from:

☑ Yes

(4.1.2.3) Policies which outline the positions' accountability for this environmental issue

Select all that apply

☑ Board Terms of Reference

☑ Individual role descriptions

(4.1.2.4) Frequency with which this environmental issue is a scheduled agenda item

Select from:

☑ Scheduled agenda item in every board meeting (standing agenda item)

(4.1.2.5) Governance mechanisms into which this environmental issue is integrated

Select all that apply

☑ Overseeing and guiding scenario analysis

☑ Overseeing the setting of corporate targets

☑ Monitoring progress towards corporate targets

☑ Overseeing and guiding public policy engagement

☑ Overseeing and guiding public policy engagement

☑ Approving and/or overseeing employee incentives

☑ Overseeing and guiding major capital expenditures

☑ Overseeing and guiding the development of a business strategy

☑ Overseeing and guiding acquisitions, mergers, and divestitures

☑ Reviewing and guiding the assessment process for dependencies, impacts, risks, and opportunities

(4.1.2.7) Please explain

Issues related to climate change are part of the organization's sustainability policy and objectives. Item number 7.13 of Klabin S/A sustainability policy: "Ensure that the Company's operations constantly seek to reduce emissions of Greenhouse Gases (GHG), considering the environmental impact on its operations and investment projects so that they are compatible with the long-term objectives adopted by Klabin." Taking into consideration this, the organization's goals and objectives are defined based on the organization's principles. Klabin has a specific corporate area of Sustainability and Environment that has as one of its objectives the day-to-day management of the issue with the responsibility of monitoring global and national climate agendas and mapping their related risks and opportunities. This area shows the importance that the organization sees to deal daily on corporate issues related to the environment and industrial sustainability in the different industrial units and businesses of Klabin. In addition, the issues related to atmospheric emissions integrate the environmental indices of the main units of Klabin S/A. These indicators

are monitored and analyzed on a monthly basis. Definitions and main action plans to meet defined goals involve the operational and strategic levels of the organization. Klabin maintains a fixed sustainability committee main composed of directors, with the Executive Director of Industrial Technology, Innovation and Sustainability as the sponsor and Sustainability and Environment Executive Manager as the technical advisor of these committee. Items related to climate change and risks and opportunities are fixed agenda. Items of critical analysis involving senior management (managers and directors). The aligned strategies and actions defined in the committee are guided by financial, legal, social and environmental themes. In general, all these items taken into consideration during these meetings are important issues for the definition of the organization's growth strategy, considering new technologies and new projects for the company in line with the Klabin's Objectives for Sustainable Development – based on UN Sustainable Development Goals. Recently, Klabin approved three climate targets until 2030: (i) meet the goals agreed with the Science-Based Targets Initiative; (ii) 100% purchase of certified energy from a renewable source; (iii) reduce fossil fuel usage to have an energy matrix that is 92% renewable. A specific webpage was created for disclosure and transparency on the company's progress towards achieving the climate and other sustainability goals/targets.

Forests

(4.1.2.1) Positions of individuals or committees with accountability for this environmental issue

Select all that apply

☑ Chief Executive Officer (CEO)

☑ Chief Sustainability Officer (CSO)

☑ Board-level committee

(4.1.2.2) Positions' accountability for this environmental issue is outlined in policies applicable to the board

Select from:

☑ Yes

(4.1.2.3) Policies which outline the positions' accountability for this environmental issue

Select all that apply

☑ Board Terms of Reference

☑ Individual role descriptions

(4.1.2.4) Frequency with which this environmental issue is a scheduled agenda item

Select from:

☑ Scheduled agenda item in every board meeting (standing agenda item)

(4.1.2.5) Governance mechanisms into which this environmental issue is integrated

Select all that apply

☑ Overseeing and guiding scenario analysis
☑ Overseeing the setting of corporate targets
☑ Monitoring progress towards corporate targets
☑ Overseeing and guiding public policy engagement
☑ Overseeing and guiding public policy engagement
☑ Approving and/or overseeing employee incentives
☑ Overseeing and guiding major capital expenditures
☑ Overseeing and guiding the development of a business strategy
☑ Overseeing and guiding acquisitions, mergers, and divestitures
☑ Reviewing and guiding the assessment process for dependencies, impacts, risks, and opportunities

(4.1.2.7) Please explain

Issues related to forests are part of the organization's core activities, in line with the expansion plan and SDGs. Klabin has a corporate area of Sustainability&Environment, responsable for day-to-day management of national/global climate and biodiversity agendas. Klabin maintains a fixed Sustainability Committee main composed of directors, with the CSO as the sponsor and Sustainability & Environment Executive Manager as the technical advisor. Items related to forest risks and opportunities are fixed agenda in the meetings that occur more than quartely. In general, all these mechanisms taken into consideration the organization's growth strategy, considering the company expansion plan until 2030. Aiming to guarantee the adequate future of wood for factories, with quality and safety, and with diligent allocation of capital, on December 20, 2023, a contract was signed with Arauco for the purchase of companies holding 150 thousand hectares of total area, mostly in the State of Paraná, but also in the states of Santa Catarina and São Paulo. The negotiation comprises 85 thousand hectares of productive area and 31.5 million tons of standing wood, in addition to forestry machinery and equipment, with an investment greater than R5 billion. Annual goals related to forestry issues are established in the Monetary Rewards Program (PPR), with the objective of directing the efforts that each unit will follow that year to ensure its development with operational excellence - production efficiency, profit and sustainability. The PPR Commission monitors this process. One of the forestry indicators refers to the good performance in the Forest Management audit. Each indicator has a different weight (certification weight is 10%) and, according to them, bonus percentage for employees is calculated every six months.

Water

(4.1.2.1) Positions of individuals or committees with accountability for this environmental issue

Select all that apply

☑ Chief Executive Officer (CEO)
☑ Chief Sustainability Officer (CSO)
☑ Board-level committee

(4.1.2.2) Positions' accountability for this environmental issue is outlined in policies applicable to the board

Select from:
☑ Yes

(4.1.2.3) Policies which outline the positions' accountability for this environmental issue

Select all that apply
☑ Board Terms of Reference
☑ Individual role descriptions

(4.1.2.4) Frequency with which this environmental issue is a scheduled agenda item

Select from:
☑ Scheduled agenda item in every board meeting (standing agenda item)

(4.1.2.5) Governance mechanisms into which this environmental issue is integrated

Select all that apply
☑ Reviewing and guiding annual budgets
☑ Overseeing and guiding scenario analysis
☑ Overseeing the setting of corporate targets
☑ Monitoring progress towards corporate targets
☑ Approving corporate policies and/or commitments
☑ Monitoring the implementation of the business strategy
☑ Overseeing reporting, audit, and verification processes
☑ Monitoring the implementation of a climate transition plan
☑ Overseeing and guiding the development of a business strategy
☑ Overseeing and guiding acquisitions, mergers, and divestitures
☑ Overseeing and guiding public policy engagement
☑ Overseeing and guiding public policy engagement
☑ Reviewing and guiding innovation/R&D priorities
☑ Approving and/or overseeing employee incentives
☑ Overseeing and guiding major capital expenditures

☑ Monitoring supplier compliance with organizational requirements

☑ Monitoring compliance with corporate policies and/or commitments

☑ Overseeing and guiding the development of a climate transition plan

☑ Reviewing and guiding the assessment process for dependencies, impacts, risks, and opportunities

(4.1.2.7) Please explain

The Fixed Sustainability Commission, composed of the company's statutory and non-statutory directors, meets quarterly to discuss and decide on the company's social and environmental issues. At these meetings, the results of monitoring new projects, the environmental performance of the units, and the climate and water risks of the units are presented and discussed. This includes an assessment of water stress in the regions where Klabin operates. Based on these discussions and analyses, the directors guide budgetary decisions related to water security, investments, and the management of action plans to control and mitigate the assessed risks. In 2020, the Commission approved three new water-related targets for 2030, which are part of Klabin's medium and long-term goals aligned with the UN Sustainable Development Goals. The approved targets are: (i) 100% of the locations where we operate will have initiatives to increase territorial water security. (ii) 100% of forest operations under our management will employ hydrosolidarity management. (iii) Reduce the specific consumption of industrial water by 20%. The Fixed Sustainability Commission also discusses Klabin's units located in areas of water stress, classified according to the WRI Aqueduct tool. During 2023, the meetings covered the sustainability action schedule, sustainability policies, assessment and engagement of value chain, major actions performed, and project planning for 2024, all of which included water-related issues. The results of previously defined actions were assessed, and new actions were created for each unit to ensure water availability even in current or future situations of water scarcity. All the contents of the meetings are communicated to the involved managers, who are responsible for structuring the action plans and monitoring these actions. The approval of the discussed content and the creation of actions is the responsibility of the Chief Sustainability Officer (CSO).

Biodiversity

(4.1.2.1) Positions of individuals or committees with accountability for this environmental issue

Select all that apply

☑ Chief Executive Officer (CEO)

☑ Chief Sustainability Officer (CSO)

☑ Board-level committee

(4.1.2.2) Positions’ accountability for this environmental issue is outlined in policies applicable to the board

Select from:

☑ Yes

(4.1.2.3) Policies which outline the positions' accountability for this environmental issue

Select all that apply

☑ Board Terms of Reference

☑ Individual role descriptions

(4.1.2.4) Frequency with which this environmental issue is a scheduled agenda item

Select from:

☑ Scheduled agenda item in every board meeting (standing agenda item)

(4.1.2.5) Governance mechanisms into which this environmental issue is integrated

Select all that apply

☑ Reviewing and guiding annual budgets

☑ Overseeing and guiding scenario analysis

☑ Overseeing the setting of corporate targets

☑ Monitoring progress towards corporate targets

☑ Approving corporate policies and/or commitments

☑ Monitoring the implementation of the business strategy

☑ Overseeing reporting, audit, and verification processes

☑ Monitoring the implementation of a climate transition plan

☑ Overseeing and guiding the development of a business strategy

☑ Overseeing and guiding acquisitions, mergers, and divestitures

☑ Monitoring supplier compliance with organizational requirements

☑ Monitoring compliance with corporate policies and/or commitments

☑ Overseeing and guiding the development of a climate transition plan

☑ Reviewing and guiding the assessment process for dependencies, impacts, risks, and opportunities

☑ Overseeing and guiding public policy engagement

☑ Overseeing and guiding public policy engagement

☑ Reviewing and guiding innovation/R&D priorities

☑ Approving and/or overseeing employee incentives

☑ Overseeing and guiding major capital expenditures

(4.1.2.7) Please explain

The Fixed Sustainability Commission, composed of the company's statutory and non-statutory directors, meets quarterly to discuss and decide on the company's social and environmental issues. At these meetings, the results of monitoring new projects, the environmental performance of the units, climate, water and

biodiversity risks are presented and discussed. Based on these discussions and analyses, the directors guide budgetary decisions related to biodiversity conservation investments, and the management of action plans to control and mitigate the assessed risks. In 2020, the Commission approved five new biodiversity targets for 2030, which are part of Klabin's medium and long-term goals aligned with the UN Sustainable Development Goals. The approved targets are: (i) have 100% of the hotspots where wildlife is run over mapped with initiatives to reduce accidents. (ii) maintain and enhance the number of fauna species dependent on high environmental quality forests. (iii) maintain at least 6 partnerships/research projects per year based on nature preservation and biodiversity studies. (iv) conduct the reintroduction of at least two species that are proven to be locally extinct and promote population reinforcement of four more threatened species. (v) provide 1 million native tree seedlings to recover degraded areas. During 2023, the meetings covered the sustainability action schedule, sustainability policies, assessment and engagement of value chain, major actions performed, and project planning for 2024, all of which included biodiversity issues. The approval of the discussed content and the creation of actions is the responsibility of the Chief Sustainability Officer (CSO).
[Fixed row]

(4.2) Does your organization’s board have competency on environmental issues?

Climate change

(4.2.1) Board-level competency on this environmental issue

Select from:
☑ Yes

(4.2.2) Mechanisms to maintain an environmentally competent board

Select all that apply
☑ Consulting regularly with an internal, permanent, subject-expert working group
☑ Engaging regularly with external stakeholders and experts on environmental issues
☑ Integrating knowledge of environmental issues into board nominating process
☑ Regular training for directors on environmental issues, industry best practice, and standards (e.g., TCFD, SBTi)
☑ Having at least one board member with expertise on this environmental issue

(4.2.3) Environmental expertise of the board member

Experience
☑ Executive-level experience in a role focused on environmental issues
☑ Management-level experience in a role focused on environmental issues

☑ Experience in an academic role focused on environmental issues
☑ Experience in the environmental department of a government (national or local)

Forests

(4.2.1) Board-level competency on this environmental issue

Select from:
☑ Yes

(4.2.2) Mechanisms to maintain an environmentally competent board

Select all that apply
☑ Consulting regularly with an internal, permanent, subject-expert working group
☑ Engaging regularly with external stakeholders and experts on environmental issues
☑ Integrating knowledge of environmental issues into board nominating process
☑ Regular training for directors on environmental issues, industry best practice, and standards (e.g., TCFD, SBTi)
☑ Having at least one board member with expertise on this environmental issue

(4.2.3) Environmental expertise of the board member

Experience
☑ Executive-level experience in a role focused on environmental issues
☑ Management-level experience in a role focused on environmental issues
☑ Experience in an academic role focused on environmental issues
☑ Experience in the environmental department of a government (national or local)

Water

(4.2.1) Board-level competency on this environmental issue

Select from:

☑ Yes

(4.2.2) Mechanisms to maintain an environmentally competent board

Select all that apply

☑ Consulting regularly with an internal, permanent, subject-expert working group

☑ Engaging regularly with external stakeholders and experts on environmental issues

☑ Integrating knowledge of environmental issues into board nominating process

☑ Regular training for directors on environmental issues, industry best practice, and standards (e.g., TCFD, SBTi)

☑ Having at least one board member with expertise on this environmental issue

(4.2.3) Environmental expertise of the board member

Experience

☑ Executive-level experience in a role focused on environmental issues

☑ Management-level experience in a role focused on environmental issues

☑ Experience in an academic role focused on environmental issues

☑ Experience in the environmental department of a government (national or local)

[Fixed row]

(4.3) Is there management-level responsibility for environmental issues within your organization?

	Management-level responsibility for this environmental issue
Climate change	*Select from:* ☑ Yes

	Management-level responsibility for this environmental issue
Forests	*Select from:* ☑ Yes
Water	*Select from:* ☑ Yes
Biodiversity	*Select from:* ☑ Yes

[Fixed row]

(4.3.1) Provide the highest senior management-level positions or committees with responsibility for environmental issues (do not include the names of individuals).

Climate change

(4.3.1.1) Position of individual or committee with responsibility

Executive level

☑ Chief Sustainability Officer (CSO)

(4.3.1.2) Environmental responsibilities of this position

Dependencies, impacts, risks and opportunities

☑ Assessing environmental dependencies, impacts, risks, and opportunities

☑ Assessing future trends in environmental dependencies, impacts, risks, and opportunities

☑ Managing environmental dependencies, impacts, risks, and opportunities

Engagement

☑ Managing public policy engagement related to environmental issues

☑ Managing value chain engagement related to environmental issues

Policies, commitments, and targets

☑ Monitoring compliance with corporate environmental policies and/or commitments

☑ Measuring progress towards environmental corporate targets

☑ Measuring progress towards environmental science-based targets

☑ Setting corporate environmental policies and/or commitments

☑ Setting corporate environmental targets

Strategy and financial planning

☑ Conducting environmental scenario analysis

☑ Implementing the business strategy related to environmental issues

☑ Managing acquisitions, mergers, and divestitures related to environmental issues

☑ Managing major capital and/or operational expenditures relating to environmental issues

Other

☑ Providing employee incentives related to environmental performance

(4.3.1.4) Reporting line

Select from:

☑ Reports to the board directly

(4.3.1.5) Frequency of reporting to the board on environmental issues

Select from:

☑ More frequently than quarterly

(4.3.1.6) Please explain

The highest level of the organization is responsible for the execution of the Board of Directors' deliberations and the day-to-day management of the business. Has the responsibility for Climate Change and its related studies on impacts and opportunities. Responsibilities for climate issues have been assigned to this position due to the importance of the theme when related to the organization's policy, goals and objectives.

Forests

(4.3.1.1) Position of individual or committee with responsibility

Executive level

☑ Chief Sustainability Officer (CSO)

(4.3.1.2) Environmental responsibilities of this position

Dependencies, impacts, risks and opportunities

☑ Assessing environmental dependencies, impacts, risks, and opportunities

☑ Assessing future trends in environmental dependencies, impacts, risks, and opportunities

Engagement

☑ Managing public policy engagement related to environmental issues

Policies, commitments, and targets

☑ Monitoring compliance with corporate environmental policies and/or commitments

☑ Measuring progress towards environmental corporate targets

☑ Measuring progress towards environmental science-based targets

☑ Setting corporate environmental policies and/or commitments

☑ Setting corporate environmental targets

Strategy and financial planning

☑ Conducting environmental scenario analysis

☑ Developing a business strategy which considers environmental issues

☑ Implementing the business strategy related to environmental issues

☑ Managing acquisitions, mergers, and divestitures related to environmental issues

☑ Managing major capital and/or operational expenditures relating to environmental issues

Other

☑ Providing employee incentives related to environmental performance

(4.3.1.4) Reporting line

Select from:

☑ Reports to the board directly

(4.3.1.5) Frequency of reporting to the board on environmental issues

Select from:

☑ More frequently than quarterly

(4.3.1.6) Please explain

The Executive Director of Industrial Technology and Sustainability, the CSO-Chief Sustainability Officer is the sponsor of the Sustainability Committee. The committee is also compound of directors from the following areas: (i) Industrial Paper; (ii) Forestry; (iii) Legal, (iv) Integrity and Risk Management, (v) People and Corporate Services. The CSO is responsible for ESG(Environmental-Social-Governance) matters, which includes Forests and its related studies, impacts and opportunities. Alongside him, the Environmental and Sustainability Corporate team, with over 70 employees, is also responsible for the day-to-day management of the issue with the responsibility of monitoring global and national biodiversity agendas and mapping their related risks and opportunities. It is worth mentioning that the CSO area and director works closely with the Forestry area, to maintain coherence between daily actions.

Water

(4.3.1.1) Position of individual or committee with responsibility

Executive level

☑ Chief Sustainability Officer (CSO)

(4.3.1.2) Environmental responsibilities of this position

Dependencies, impacts, risks and opportunities

☑ Assessing environmental dependencies, impacts, risks, and opportunities

☑ Assessing future trends in environmental dependencies, impacts, risks, and opportunities
☑ Managing environmental dependencies, impacts, risks, and opportunities

Engagement
☑ Managing engagement in landscapes and/or jurisdictions
☑ Managing public policy engagement related to environmental issues
☑ Managing supplier compliance with environmental requirements
☑ Managing value chain engagement related to environmental issues

Policies, commitments, and targets
☑ Monitoring compliance with corporate environmental policies and/or commitments
☑ Measuring progress towards environmental corporate targets
☑ Measuring progress towards environmental science-based targets
☑ Setting corporate environmental policies and/or commitments
☑ Setting corporate environmental targets

Strategy and financial planning
☑ Developing a climate transition plan
☑ Implementing a climate transition plan
☑ Conducting environmental scenario analysis
☑ Managing annual budgets related to environmental issues
☑ Implementing the business strategy related to environmental issues
☑ Developing a business strategy which considers environmental issues
☑ Managing environmental reporting, audit, and verification processes
☑ Managing acquisitions, mergers, and divestitures related to environmental issues
☑ Managing major capital and/or operational expenditures relating to environmental issues
☑ Managing priorities related to innovation/low-environmental impact products or services (including R&D)

Other
☑ Providing employee incentives related to environmental performance

(4.3.1.4) Reporting line

Select from:

☑ Reports to the board directly

(4.3.1.5) Frequency of reporting to the board on environmental issues

Select from:

☑ More frequently than quarterly

(4.3.1.6) Please explain

Director of Industrial Technology, Innovation and Sustainability is the highest level of the organization, responsible for the execution of the Board of Directors' deliberations and approvals of environmental-related issues, including water. He is the sponsor of the Sustainability Committee whose role is to define guidelines and assess the need for investments and prioritize initiatives, including water security and water-related impacts and opportunities. The frequency of reporting to the board on water-related issues is quarterly. Items related to water security and risks and opportunities are fixed agenda. The nature of the report to the board aims to disclose and update Klabin's directors and officers on: - the volumes of water withdrawal and discharged; - monitoring of short, medium and long term targets; - managing of water-related risks, opportunities, dependence and impacts and future trends; - value chain engagement; - the units located in areas of water stress and their action plans to reduce and mitigate these risks.

Biodiversity

(4.3.1.1) Position of individual or committee with responsibility

Executive level

☑ Chief Sustainability Officer (CSO)

(4.3.1.2) Environmental responsibilities of this position

Dependencies, impacts, risks and opportunities

☑ Assessing environmental dependencies, impacts, risks, and opportunities

☑ Assessing future trends in environmental dependencies, impacts, risks, and opportunities

☑ Managing environmental dependencies, impacts, risks, and opportunities

Engagement

☑ Managing engagement in landscapes and/or jurisdictions
☑ Managing public policy engagement related to environmental issues
☑ Managing supplier compliance with environmental requirements
☑ Managing value chain engagement related to environmental issues

Policies, commitments, and targets

☑ Monitoring compliance with corporate environmental policies and/or commitments
☑ Measuring progress towards environmental corporate targets
☑ Measuring progress towards environmental science-based targets
☑ Setting corporate environmental policies and/or commitments
☑ Setting corporate environmental targets

Strategy and financial planning

☑ Developing a climate transition plan
☑ Implementing a climate transition plan
☑ Conducting environmental scenario analysis
☑ Managing annual budgets related to environmental issues
☑ Implementing the business strategy related to environmental issues
☑ Developing a business strategy which considers environmental issues
☑ Managing environmental reporting, audit, and verification processes
☑ Managing acquisitions, mergers, and divestitures related to environmental issues
☑ Managing major capital and/or operational expenditures relating to environmental issues
☑ Managing priorities related to innovation/low-environmental impact products or services (including R&D)

Other

☑ Providing employee incentives related to environmental performance

(4.3.1.4) Reporting line

Select from:

☑ Reports to the board directly

(4.3.1.5) Frequency of reporting to the board on environmental issues

Select from:

☑ More frequently than quarterly

(4.3.1.6) Please explain

Director of Industrial Technology, Innovation and Sustainability is the highest level of the organization, responsible for the execution of the Board of Directors' deliberations and approvals of environmental-related issues, including biodiversity. He is the sponsor of the Sustainability Committee whose role is to define guidelines and assess the need for investments and prioritize initiatives, including biodiversity-related dependences, impacts, risks and opportunities.
[Add row]

(4.5) Do you provide monetary incentives for the management of environmental issues, including the attainment of targets?

Climate change

(4.5.1) Provision of monetary incentives related to this environmental issue

Select from:

☑ Yes

(4.5.2) % of total C-suite and board-level monetary incentives linked to the management of this environmental issue

100

(4.5.3) Please explain

From 2022, the variable remuneration of the CEO and all directors has depended on the achievement of sustainability goals, including the reduction of GHG emissions validated by SBTi. In 2024, this link was extended to 100% of Klabin's employees at all levels, with 20% of variable remuneration linked to the performance of sustainability targets (climate, water, forest, diversity and safety).

Forests

(4.5.1) Provision of monetary incentives related to this environmental issue

Select from:

☑ Yes

(4.5.2) % of total C-suite and board-level monetary incentives linked to the management of this environmental issue

100

(4.5.3) Please explain

Klabin has a monetary rewards program, named PGR, exclusive for leadership positions. To be eligible, leaders have to achieve the company's targets related to forest productivity, R&D findings, impact mitigation, market share's position, ESG assessments performance, and maintaining and improving the FSC and PEFC/Cerflor certifications (better practices in the sustainable management of forest and the supply chain are required), among others.

Water

(4.5.1) Provision of monetary incentives related to this environmental issue

Select from:

☑ Yes

(4.5.2) % of total C-suite and board-level monetary incentives linked to the management of this environmental issue

100

(4.5.3) Please explain

Since 2022, the variable remuneration of the CEO and all directors has depended on the achievement of sustainability goals, including the reduction of specific water withdrawal. In 2024, this link will extend to 100% of Klabin's employees at all levels, with 20% of variable remuneration tied to the sustainability index, which is composed of social targets (diversity and safety) and environmental targets (climate, water, forest).
[Fixed row]

(4.5.1) Provide further details on the monetary incentives provided for the management of environmental issues (do not include the names of individuals).

Climate change

(4.5.1.1) Position entitled to monetary incentive

Board or executive level

☑ Chief Executive Officer (CEO)

(4.5.1.2) Incentives

Select all that apply

☑ Bonus - % of salary

(4.5.1.3) Performance metrics

Targets

☑ Progress towards environmental targets

☑ Achievement of environmental targets

☑ Organization performance against an environmental sustainability index

Strategy and financial planning

☑ Achievement of climate transition plan

Emission reduction

☑ Reduction in emissions intensity

Resource use and efficiency

☑ Reduction of water withdrawals – direct operations

(4.5.1.4) Incentive plan the incentives are linked to

Select from:

☑ Both Short-Term and Long-Term Incentive Plan, or equivalent

(4.5.1.5) Further details of incentives

The variable remuneration of the CEO and other executives is made up of short and long-term incentives. In our short-term incentive program, we use financial indicators (such as EBITDA, Net Revenue, Working Capital) and individual targets (tied to the Klabin 2030 Agenda) as a parameter. The indicators are financial, operational, market and ESG related. Regarding the long-term incentive, we established two share-based programs with the objective of stimulating the achievement of results and also aligning the interests of the participants with those of the Company's shareholders: - Long-Term Incentive Performance: Its rules are approved by the Board of Directors of Klabin S/A. The purpose of this program is to achieve alignment with the Company's and Shareholders' strategy, conditioning its receipt to the achievement of a performance objective, namely, the TSR (Total Shareholder Return) X Cost of Equity (Ke). The target value corresponds to 25% of the short-term variable remuneration target, based on the fees in force in the month of January of the fiscal year. This target value is converted into "virtual units", considering the average quotation of the last 30 trading sessions of the year prior to the current plan. The plan has a duration of 5 years, and its receipt is subject to the achievement of performance goals after this 5-year period (vesting), in addition to remaining at Klabin. Once the performance objective is reached, in addition to the "virtual units", the executive will be entitled, as an additional income from ILP Performance, to the amount equivalent to dividends and/or interest on equity distributed by KLABIN S/A to shareholders throughout the vesting period. These values are converted into "virtual units" over these 5 years of the vesting period and accumulated in a graph account. After the period of 5 years, in addition to the determination of the achievement of the performance indicator, a discretionary assessment is made by the Board of Directors, which may be modulated, increased or reduced by up to 10% on the final result, in order to mitigate exogenous impacts.

(4.5.1.6) How the position's incentives contribute to the achievement of your environmental commitments and/or climate transition plan

Sustainability Director is response for Environmental, Climate and Social issues and has specific goals related: Klabin is continually investing to raise the use of renewable sources in our energy matrix and consequently develop products with lower carbon footprint. In recent years, it have progressively replaced fuel oil by biomass (vegetable matter from forestry operations) as fuel in our boilers, reaching, in 2014, 86.5% of renewable sources for energy generation – in 2023 we reached 92.6% of renewable sources for energy generation. With the creation of the company's 2030 Agenda, in 2020 the goal of achieving a 92% energy matrix from renewable sources by 2030 was announced. The result achieved in 2023 shows the company's commitment.. This percentage includes, as well as biomass, burning of black liquor (by-product generated in the industrial process) and our own hydraulic power. In addition, Klabin is looking for electricity from clean sources, such as the wind and sun.

Forests

(4.5.1.1) Position entitled to monetary incentive

Board or executive level

☑ Chief Executive Officer (CEO)

(4.5.1.2) Incentives

Select all that apply

☑ Bonus - % of salary

(4.5.1.3) Performance metrics

Targets

☑ Achievement of environmental targets

☑ Organization performance against an environmental sustainability index

Resource use and efficiency

☑ Eliminating deforestation and conversion of other natural ecosystems in direct operations and/or other parts of the value chain

Policies and commitments

☑ Increase in verified compliance with Deforestation and Conversion Free (DCF) policies and/or commitments

☑ Restoration and compensation to address past deforestation and conversion

(4.5.1.4) Incentive plan the incentives are linked to

Select from:

☑ Both Short-Term and Long-Term Incentive Plan, or equivalent

(4.5.1.5) Further details of incentives

Klabin sees in its remuneration practices a way to achieve the alignment of its employees with the company's strategy. Seeking to attract, retain and recognize the performance of each one. Main performance indicators taken into account when determining remuneration are the ICP - short-term incentive: 55% are linked to the EBITDA performance indicator; 15% are linked to the Net Revenue performance indicator; 10% are linked to the Working Capital performance indicator; 20% linked to individual goals contracted at the beginning of each year (PGR program). The payment of the short-term incentive can vary from 0% to 150%, with 100% of salary bonus if targets are on track to be met at the end of the reporting year. In 2023, 100% of the targets contracted c-suite then related to the performance of the Klabin Sustainability Index. In 2020, Klabin has announced its official set of public targets - company's Sustainability strategy aligned to 2030 Agenda, and the Sustainable Development Goals from United Nations, available on kods.klabin.com.br website. The targets are related to topics such as climate change, information security, local development and impact on communities, waste management, water use, biodiversity and socio-environmental performance of suppliers. For 2024, all directors have

as targets (I) biodiversity (restoration/reinforcement), (II) non-deforestation and/or conversion of other natural ecosystems, (III) certification and (IV) hydro-solidarity management.

(4.5.1.6) How the position's incentives contribute to the achievement of your environmental commitments and/or climate transition plan

PGR is a monetary reward program exclusive to leadership positions. To be eligible, the leaders have to achieve the company's targets. Klabin has developed guidelines for forest and climate management. Based on those guidelines, managers establish goals in accordance with its own projects. Targets are annually reassessed. One of the items that compose this index is the Klabin Sustainability Index's performance, composed of all Klabin 2030 targets' KPIs. These indicators include the 23 ESG material themes, regarding governance, social and environmental aspects that are directly linked to forest productivity; R&D findings; impact mitigation; market share position; ESG assessments performance; and maintaining and improving the FSC and Cerflor/PEFC certifications (better practices in the sustainable management of forest and the supply chain are required), community satisfaction rate, among others. In the long term, we strengthen the commitment and convergence of interest between the Company, shareholders and employees, through the ILP Matching programs (based on units (KLBN11) with 3-year vesting) and ILP (generating value for the Company using the indicator as an indicator). TSR (Total Shareholder Return) in relation to the cost of equity (KE). The value corresponds to 25% of the target of the executives' ICP and the vesting is for 5 years).

Water

(4.5.1.1) Position entitled to monetary incentive

Board or executive level

☑ Chief Executive Officer (CEO)

(4.5.1.2) Incentives

Select all that apply

☑ Bonus - % of salary

(4.5.1.3) Performance metrics

Targets

☑ Progress towards environmental targets

☑ Achievement of environmental targets

☑ Organization performance against an environmental sustainability index

Resource use and efficiency

☑ Reduction of water withdrawals – direct operations

(4.5.1.4) Incentive plan the incentives are linked to

Select from:

☑ Both Short-Term and Long-Term Incentive Plan, or equivalent

(4.5.1.5) Further details of incentives

Regarding short-term incentives, since 2022, all executive directors have included the Sustainability Index in their variable compensation. This index was created to prioritize the company's annual goals, including water use. A salary bonus is awarded if the Sustainability Index meets the targets set for the year. The indicators are monitored monthly. In 2024, this index was extended to 100% of Klabin's employees at all levels, with 20% of variable remuneration tied to the sustainability index, which is composed of social targets (diversity and safety) and environmental targets (climate, water, forest). Targets linked to monetary incentives are: - Reduce the specific use of industrial water by 20% by 2030 (base year 2018). - Ensure 100% of forest operations under its management implement hydrosolidarity management by 2030 (base year 2018). Bonus payments occur in March of the current year, reflecting the previous year's performance. Regarding long-term incentives, since 2021, all company managers have had the possibility of tying their variable remuneration to the company's performance in achieving Klabin's Sustainable Development Goals. Additionally, up to 10% of the variable remuneration can be converted into units, which are then doubled by the company, fostering a long-term commitment to achieving targets tied to the performance of Klabin's KODS targets. In 2022, this benefit was extended to all employees, providing 100% coverage of a long-term incentive linked to the company's ESG performance.

(4.5.1.6) How the position’s incentives contribute to the achievement of your environmental commitments and/or climate transition plan

Klabin has included reducing the impact on water resources in its strategy until 2030 through targets linked to water commitments. To achieve this, the targets were incorporated into incentives provided to C-suite executives, directors, managers, and coordinators. Among these targets are: - Reduce the specific use of industrial water by 20% (base year 2018). - Ensure 100% of forest operations under its management implement hydrosolidarity management (base year 2018). This short-term variable incentive policy establishes guidelines aligned with the company's sustainable strategy and policy. For C-suite employees, the variable incentive may vary according to the results and performance indicators. Since 2021, all company managers have had the possibility of tying their variable remuneration to the company's performance concerning Klabin's Sustainable Development Goals. As a result of this incentive, in 2023, we improved the specific water use by 9.8% compared to 2018. In 2024, this link will extend to 100% of Klabin's employees at all levels, with 20% of variable remuneration tied to the sustainability index, which is composed of social targets (diversity and safety) and environmental targets (climate, water, forest). For the future, we expect to continuously improve our water management, keeping it integrated into our business strategy and monetary incentives.

Water

(4.5.1.1) Position entitled to monetary incentive

Board or executive level

☑ Chief Operating Officer (COO)

(4.5.1.2) Incentives

Select all that apply

☑ Bonus - % of salary

(4.5.1.3) Performance metrics

Targets

☑ Progress towards environmental targets

☑ Achievement of environmental targets

☑ Organization performance against an environmental sustainability index

Resource use and efficiency

☑ Reduction of water withdrawals – direct operations

Pollution

☑ Improvements in wastewater quality – direct operations

(4.5.1.4) Incentive plan the incentives are linked to

Select from:

☑ Both Short-Term and Long-Term Incentive Plan, or equivalent

(4.5.1.5) Further details of incentives

Regarding short-term incentives, since 2022, all executive directors have included the Sustainability Index in their variable compensation. This index was created to prioritize the company's annual goals, including water use. A salary bonus is awarded if the Sustainability Index meets the targets set for the year. The indicators are monitored monthly. In 2024, this index was extended to 100% of Klabin's employees at all levels, with 20% of variable remuneration tied to the sustainability index,

which is composed of social targets (diversity and safety) and environmental targets (climate, water, forest). Targets linked to monetary incentives are: - Reduce the specific use of industrial water by 20% by 2030 (base year 2018). - Ensure 100% of forest operations under its management implement hydrosolidarity management by 2030 (base year 2018). Bonus payments occur in March of the current year, reflecting the previous year's performance. Regarding long-term incentives, since 2021, all company managers have had the possibility of tying their variable remuneration to the company's performance in achieving Klabin's Sustainable Development Goals. Additionally, up to 10% of the variable remuneration can be converted into units, which are then doubled by the company, fostering a long-term commitment to achieving targets tied to the performance of Klabin's KODS targets. In 2022, this benefit was extended to all employees, providing 100% coverage of a long-term incentive linked to the company's ESG performance. In addition, the COO also considers the environmental index of industrial operations in his/her variable compensation, considering the indicator of optimization/reduction of fiber loss and, consequently, improvement in the quality of the final treated effluent. This index is also applicable to 100% of operational employees for each industrial unit to which this index applies.

(4.5.1.6) How the position's incentives contribute to the achievement of your environmental commitments and/or climate transition plan

Klabin has included reducing the impact on water resources in its strategy until 2030 through targets linked to water commitments. To achieve this, the targets were incorporated into incentives provided to C-suite executives, directors, managers, and coordinators. Among these targets are: - Reduce the specific use of industrial water by 20% (base year 2018). - Ensure 100% of forest operations under its management implement hydrosolidarity management (base year 2018). This short-term variable incentive policy establishes guidelines aligned with the company's sustainable strategy and policy. For C-suite employees, the variable incentive may vary according to the results and performance indicators. Since 2021, all company managers have had the possibility of tying their variable remuneration to the company's performance concerning Klabin's Sustainable Development Goals. As a result of this incentive, in 2023, we improved the specific water use by 9.8% compared to 2018. In 2024, this link will extend to 100% of Klabin's employees at all levels, with 20% of variable remuneration tied to the sustainability index, which is composed of social targets (diversity and safety) and environmental targets (climate, water, forest). For the future, we expect to continuously improve our water management, keeping it integrated into our business strategy and monetary incentives.
[Add row]

(4.6) Does your organization have an environmental policy that addresses environmental issues?

	Does your organization have any environmental policies?
	Select from: ☑ Yes

[Fixed row]

(4.6.1) Provide details of your environmental policies.

Row 1

(4.6.1.1) Environmental issues covered

Select all that apply

☑ Climate change

☑ Forests

☑ Water

☑ Biodiversity

(4.6.1.2) Level of coverage

Select from:

☑ Organization-wide

(4.6.1.3) Value chain stages covered

Select all that apply

☑ Direct operations

☑ Upstream value chain

☑ Downstream value chain

(4.6.1.4) Explain the coverage

Klabin's Sustainability Policy consists of 19 items that support the commitment to sustainable development. It encompasses leadership and governance, environment (including risk assessment), human capital, social capital, and innovation. Defined as Top stakeholders: direct and indirect employees, shareholders, communities, biodiversity, business partners, public bodies, financial entities, and the third sector. Representatives are expected to adopt similar commitments and conduct to promote sustainability throughout the value chain. Sustain. Report and Forest Management Plan are updated annually and available on Klabin's website. These documents disclose efforts aligned with the Sustainability Policy, including compliance with Klabin's Agenda based on the UN SDGs (item 4), best practices in forest management (item 12), and supplier monitoring (item 16). Item 12 ensures the sustainable supply of planted wood for industrial units without harming associated natural ecosystems. Certified by FSC since 1998, Klabin is a pioneer in mosaic management based on "hidrosolidarity," ensuring operational efficiency while preserving water resources and biodiversity in the Atlantic Forest. Klabin is also committed to 100% FSC Chain of Custody, requiring suppliers to comply with its

principles. The Wood Purchase Policy complements the Sustainability Policy, enhancing supplier monitoring and prohibiting negotiations with non-compliant suppliers, particularly those involved in deforestation.

(4.6.1.5) Environmental policy content

Environmental commitments

☑ Commitment to a circular economy strategy

☑ Commitment to avoidance of negative impacts on threatened and protected species

☑ Commitment to comply with regulations and mandatory standards

☑ Commitment to take environmental action beyond regulatory compliance

☑ Commitment to stakeholder engagement and capacity building on environmental issues

Climate-specific commitments

☑ Commitment to net-zero emissions

☑ Commitment to not funding climate-denial or lobbying against climate regulations

Forests-specific commitments

☑ Commitment to best management practices for soils and peat

☑ Commitment to the use of the High Conservation Value (HCV) approach

☑ Commitment to facilitate the inclusion of smallholders into the value chain

☑ Commitment to conduct or support restoration and/or compensation to remedy for past deforestation or conversion

☑ Commitment to no deforestation, to no planting on peatlands, and to no exploitation (NDPE) by target date, please specify **:**Klabin is FSC® since 1998 (PR) and 2004 (SC). And acts in accordance with FSC guideline and this commit. Its public commitments disclosed in the Public Summary https://klabin.com.br/sustentabilidade/estrategia/resumo-publico and already implemented.

☑ Commitment to no-conversion of natural ecosystems by target date, please specify **:**Klabin is FSC® since 1998 (PR) and 2004 (SC). And acts in accordance with FSC guideline and this commit. Its public commitments disclosed in the Public Summary https://klabin.com.br/sustentabilidade/estrategia/resumo-publico and already implemented.

☑ Commitment to no-deforestation by target date, please specify **:**Klabin is FSC® since 1998 (PR) and 2004 (SC). And acts in accordance with FSC guideline and this commit. Its public commitments disclosed in the Public Summary https://klabin.com.br/sustentabilidade/estrategia/resumo-publico and already implemented.

Water-specific commitments

☑ Commitment to control/reduce/eliminate water pollution

☑ Commitment to reduce water consumption volumes
☑ Commitment to reduce water withdrawal volumes
☑ Commitment to safely managed WASH in local communities
☑ Commitment to the conservation of freshwater ecosystems

Social commitments
☑ Adoption of the UN International Labour Organization principles
☑ Commitment to respect internationally recognized human rights

(4.6.1.6) Indicate whether your environmental policy is in line with global environmental treaties or policy goals

Select all that apply
☑ Yes, in line with the Paris Agreement
☑ Yes, in line with the Kunming-Montreal Global Biodiversity Framework
☑ Yes, in line with Sustainable Development Goal 6 on Clean Water and Sanitation

(4.6.1.7) Public availability

Select from:
☑ Publicly available

(4.6.1.8) Attach the policy

Sustainability_Policy_R01_Abril_2022_EN.pdf
[Add row]

(4.10) Are you a signatory or member of any environmental collaborative frameworks or initiatives?

(4.10.1) Are you a signatory or member of any environmental collaborative frameworks or initiatives?

Select from:
☑ Yes

(4.10.2) Collaborative framework or initiative

Select all that apply

☑ UN Global Compact
☑ We Mean Business
☑ Race to Zero Campaign
☑ Transition Pathway Initiative
☑ Forest Stewardship Council (FSC)
☑ Science-Based Targets for Nature (SBTN)
☑ Science-Based Targets Initiative (SBTi)
☑ Task Force on Nature-related Financial Disclosures (TNFD)
☑ Task Force on Climate-related Financial Disclosures (TCFD)

(4.10.3) Describe your organization's role within each framework or initiative

The company was the first in the pulp and paper sector in the Southern Hemisphere to obtain, in 1998, the FSC (Forest Stewardship Council) certification, which attests management that conserves natural resources, provides fair working conditions and encourages good relations with the community. FSC is a credible forest certification scheme and widely used in forest sector; recognized by stakeholders as a standard of sustainable management. Beside that, FSC Chain of custody (CoC) certification guarantees traceability of the raw material in the value chain.
[Fixed row]

(4.11) In the reporting year, did your organization engage in activities that could directly or indirectly influence policy, law, or regulation that may (positively or negatively) impact the environment?

(4.11.1) External engagement activities that could directly or indirectly influence policy, law, or regulation that may impact the environment

Select all that apply

☑ Yes, we engaged directly with policy makers

☑ Yes, we engaged indirectly through, and/or provided financial or in-kind support to a trade association or other intermediary organization or individual whose activities could influence policy, law, or regulation

(4.11.2) Indicate whether your organization has a public commitment or position statement to conduct your engagement activities in line with global environmental treaties or policy goals

Select from:

☑ Yes, we have a public commitment or position statement in line with global environmental treaties or policy goals

(4.11.3) Global environmental treaties or policy goals in line with public commitment or position statement

Select all that apply

☑ Paris Agreement

☑ Kunming-Montreal Global Biodiversity Framework

☑ Sustainable Development Goal 6 on Clean Water and Sanitation

☑ Another global environmental treaty or policy goal, please specify **:**Others Sustainable Development Goals, in particular 10 - Reduce inequality, 11 - Sustainable Cities and Communities, 12 - Responsible Consumption and Production, 13 - Climate Action and 15 - Life on Land.

(4.11.4) Attach commitment or position statement

Sustainability_Policy_R01_Abril_2022_EN.pdf

(4.11.5) Indicate whether your organization is registered on a transparency register

Select from:

☑ Yes

(4.11.6) Types of transparency register your organization is registered on

Select all that apply

☑ Voluntary government register

(4.11.7) Disclose the transparency registers on which your organization is registered & the relevant ID numbers for your organization

In order to contribute to the development of a sustainable economy and inspire final consumer choices, Klabin is a voluntary supporter of the United Nations Sustainable Development Goals (SDGs), since 2016. In 2020, Klabin has announced its official set of public targets - company's Sustainability strategy aligned to 2030 Agenda, available on esg.klabin.com.br/agenda-2030-desempenho-2020-das-metas website.

(4.11.8) Describe the process your organization has in place to ensure that your external engagement activities are consistent with your environmental commitments and/or transition plan

In 2020, Klabin further strengthened its sustainable development path by launching the KODs – Klabin Sustainable Development Goals, in line with the 2030 agenda of the United Nations Organization. The KODs Goals are part of a number of short, medium and long-term goals, which organize and guide the Company's priority Environmental, Social and Corporate Governance (ESG) milestones and adhere to its strategic growth plan. Based on the SDG Compass methodology, the Klabin 2030 Agenda materializes and gives substance to the Klabin Aspiration, prioritizing ESG (Environment, Social and Corporate Governance) themes in line with the milestones of the Company growth plan. The KODs are a number of short (2021), medium (2025) and long-term (2030) goals, which guides the Klabin 2030 Agenda towards sustainable development, prioritizing 14 of the 17 SDGs. The result of this work counts on the responsibility of all departments and industrial units to generate value for society and stakeholders (biodiversity, communities, employees and business partners). Learn more about the topics covered, the established goals, the related SDGs and the value proposition shared by Klabin for each one of them: esg.klabin.com.br/agenda-2030-desempenho-2020-das-metas Since 2015, Klabin is in Brazil's B3 Corporate Sustainability Index (ISE) and has recently been included in the Dow Jones Sustainability Indices World and Emerging Markets. The company has a strong performance in the WWF Environmental Paper Company Index with a 90.5% score and is also listed in the ranking of the best performances in emerging markets by Vigeo Eiris. The company is a Task Force on Climate-related Financial Disclosures (TCFD) supporter and it is gradually implementing its recommendations in order to provide secure and transparent information on climate risks and opportunities. In addition, Klabin has joined the UN's global campaign Business Ambition for 1.5C – Our Only Future, and has emissions reduction targets approved by the Science Based Targets Initiative (SBTi).
[Fixed row]

(4.11.1) On what policies, laws, or regulations that may (positively or negatively) impact the environment has your organization been engaging directly with policy makers in the reporting year?

Row 1

(4.11.1.1) Specify the policy, law, or regulation on which your organization is engaging with policy makers

Decree No. 11 075, of May 19, 2022, establishes the procedures for the preparation of Sectoral Plans for Mitigating Climate Change and creates the Emissions Trading System (ETS) for the reduction of GHG emissions.

(4.11.1.2) Environmental issues the policy, law, or regulation relates to

Select all that apply
☑ Climate change

(4.11.1.3) Focus area of policy, law, or regulation that may impact the environment

Financial mechanisms (e.g., taxes, subsidies, etc.)
☑ Emissions trading schemes

(4.11.1.4) Geographic coverage of policy, law, or regulation

Select from:

☑ National

(4.11.1.5) Country/area/region the policy, law, or regulation applies to

Select all that apply

☑ Brazil

(4.11.1.6) Your organization’s position on the policy, law, or regulation

Select from:

☑ Support with no exceptions

(4.11.1.8) Type of direct engagement with policy makers on this policy, law, or regulation

Select all that apply

☑ Responding to consultations

(4.11.1.9) Funding figure your organization provided to policy makers in the reporting year relevant to this policy, law, or regulation (currency)

0

(4.11.1.10) Explain the relevance of this policy, law, or regulation to the achievement of your environmental commitments and/or transition plan, how this has informed your engagement, and how you measure the success of your engagement

The regulated carbon market establishes a maximum emissions limit per sector and defines the value of emission allowances. In this way, this regulation incentivizes the implementation of greenhouse gas reduction projects, making them more economically viable and supporting Klabin in achieving its science-based targets, aligned with the goal of limiting global warming to 1.5C, as set out in its climate transition plan. However, the risk of regulation for companies that fall below the limits, does not effectively incentivize GHG reduction. For this reason, Klabin has been working together with our suppliers through the engagement plan, encouraging their commitment to reducing emissions. In addition, we have a knowledge trail and technical support so that they can set science-based targets and develop adequate planning to monitor the evolution of these targets over time.

(4.11.1.11) Indicate if you have evaluated whether your organization’s engagement on this policy, law, or regulation is aligned with global environmental treaties or policy goals

Select from:

☑ Yes, we have evaluated, and it is aligned

(4.11.1.12) Global environmental treaties or policy goals aligned with your organization's engagement on this policy, law or regulation

Select all that apply

☑ Paris Agreement

Row 2

(4.11.1.1) Specify the policy, law, or regulation on which your organization is engaging with policy makers

Klabin has participated on the Mitigation section from Brazilian Climate Plan, conducted by Environment Ministery.

(4.11.1.2) Environmental issues the policy, law, or regulation relates to

Select all that apply

☑ Climate change

(4.11.1.3) Focus area of policy, law, or regulation that may impact the environment

Energy and renewables

☑ Low-carbon, non-renewable energy generation

(4.11.1.4) Geographic coverage of policy, law, or regulation

Select from:

☑ National

(4.11.1.5) Country/area/region the policy, law, or regulation applies to

Select all that apply

☑ Brazil

(4.11.1.6) Your organization’s position on the policy, law, or regulation

Select from:

☑ Support with no exceptions

(4.11.1.8) Type of direct engagement with policy makers on this policy, law, or regulation

Select all that apply

☑ Ad-hoc meetings

☑ Discussion in public forums

☑ Participation in voluntary government programs

(4.11.1.9) Funding figure your organization provided to policy makers in the reporting year relevant to this policy, law, or regulation (currency)

0

(4.11.1.10) Explain the relevance of this policy, law, or regulation to the achievement of your environmental commitments and/or transition plan, how this has informed your engagement, and how you measure the success of your engagement

Klabin's objective in supporting the Climate Plan is to provide relevant information on the sector and the company for the development of decarbonization strategies and to support the implementation of a regulated carbon market in Brazil.

(4.11.1.11) Indicate if you have evaluated whether your organization’s engagement on this policy, law, or regulation is aligned with global environmental treaties or policy goals

Select from:

☑ Yes, we have evaluated, and it is aligned

(4.11.1.12) Global environmental treaties or policy goals aligned with your organization's engagement on this policy, law or regulation

Select all that apply

☑ Paris Agreement

Row 3

(4.11.1.1) Specify the policy, law, or regulation on which your organization is engaging with policy makers

National Water Agency (ANA) Resolution No. 188/2024 defines the criteria for mandatory self-monitoring of water use by authorized users in bodies of water under the Union's jurisdiction.

(4.11.1.2) Environmental issues the policy, law, or regulation relates to

Select all that apply

☑ Water

(4.11.1.3) Focus area of policy, law, or regulation that may impact the environment

Environmental impacts and pressures

☑ Water availability

(4.11.1.4) Geographic coverage of policy, law, or regulation

Select from:

☑ National

(4.11.1.5) Country/area/region the policy, law, or regulation applies to

Select all that apply

☑ Brazil

(4.11.1.6) Your organization’s position on the policy, law, or regulation

Select from:

☑ Support with no exceptions

(4.11.1.8) Type of direct engagement with policy makers on this policy, law, or regulation

Select all that apply

☑ Responding to consultations

(4.11.1.9) Funding figure your organization provided to policy makers in the reporting year relevant to this policy, law, or regulation (currency)

0

(4.11.1.10) Explain the relevance of this policy, law, or regulation to the achievement of your environmental commitments and/or transition plan, how this has informed your engagement, and how you measure the success of your engagement

Klabin participated in the consultation on the new legislation through the Brazilian Tree Industry (Ibá), the association responsible for the institutional representation of the planted tree production chain, from the field to the industry, with its main stakeholders. The consultation on Resolution No. 188/2024 of the National Water Agency (ANA) took place in December 2023. The resolution defines the criteria for mandatory self-monitoring of water use by authorized users in federal water bodies. Self-monitoring is the complete monitoring cycle carried out by authorized users, which includes measuring, recording, and storing water consumption data. The consultation was important because the new legislation applies to 2 of Klabin's 23 units. Both units are located in the state of Santa Catarina and are part of the pulp and paper business. The impact of the new legislation is positive, as all Klabin units already self-monitor their water use and consumption.

(4.11.1.11) Indicate if you have evaluated whether your organization’s engagement on this policy, law, or regulation is aligned with global environmental treaties or policy goals

Select from:

☑ Yes, we have evaluated, and it is not aligned

[Add row]

(4.11.2) Provide details of your indirect engagement on policy, law, or regulation that may (positively or negatively) impact the environment through trade associations or other intermediary organizations or individuals in the reporting year.

Row 1

(4.11.2.1) Type of indirect engagement

Select from:

☑ Indirect engagement via a trade association

(4.11.2.4) Trade association

South America

☑ Other trade association in South America, please specify :Brazilian Tree Industry (Ibá)

(4.11.2.5) Environmental issues relevant to the policies, laws, or regulations on which the organization or individual has taken a position

Select all that apply

☑ Climate change

☑ Forests

☑ Water

(4.11.2.6) Indicate whether your organization's position is consistent with the organization or individual you engage with

Select from:

☑ Consistent

(4.11.2.7) Indicate whether your organization attempted to influence the organization or individual's position in the reporting year

Select from:

☑ Yes, we publicly promoted their current position

(4.11.2.8) Describe how your organization's position is consistent with or differs from the organization or individual's position, and any actions taken to influence their position

Klabin is an active member of The Brazilian Tree Industry (Ibá), which works in a structured way to represent the industry to governmental bodies, entities within the planted tree productive chain, important sectors of the economy, environmental organizations, universities, schools, consumers, and the press. The association maintains active participation in the most important national and international forums and councils, with manufacturing and the forest base, as well as debates, meetings, and public consultations. The main topics of discussion are best practices in forest management, environmental services, technology and innovation, sustainability in the industry's production chain, and engagement with civil society in decision making. Ibá participates in technical groups and prepares documents to define a common agenda and represent the interests of the sector. Since 2016, Brazilian companies are not allowed to contribute to political campaigns or organizations (Law 13165/2015). It is important to emphasize that since 2014 Klabin's Anticorruption Manual also presents impediments to donations to politicians and political parties. Klabin's contributes, however, to the two main Industry Associations in Brazil that advocate for the importance and potential of its sector to the consolidation of a more sustainable economy. Such associations generate knowledge in order to substantiate public debates and politically influence the agendas on climate change and planted forests, forest certification standards, carbon trade/market and paper packaging products. Information on the nature of such contributions are publicly disclosed on Klabin's ESG Panel and Sustainability report.

(4.11.2.9) Funding figure your organization provided to this organization or individual in the reporting year (currency)

582244.62

(4.11.2.10) Describe the aim of this funding and how it could influence policy, law or regulation that may impact the environment

Klabin is an active member of The Brazilian Tree Industry (Ibá), which works in a structured way to represent the industry to governmental bodies, entities within the planted tree productive chain, important sectors of the economy, environmental organizations, universities, schools, consumers, and the press. The association maintains active participation in the most important national and international forums and councils, with manufacturing and the forest base, as well as debates, meetings, and public consultations. The main topics of discussion are best practices in forest management, environmental services, technology and innovation, sustainability in the industry's production chain, and engagement with civil society in decision making. Ibá participates in technical groups and prepares documents to define a common agenda and represent the interests of the sector. Since 2016, Brazilian companies are not allowed to contribute to political campaigns or organizations (Law 13165/2015). It is important to emphasize that since 2014 Klabin's Anticorruption Manual also presents impediments to donations to politicians and political parties. Klabin's contributes, however, to the two main Industry Associations in Brazil that advocate for the importance and potential of its sector to the consolidation of a more sustainable economy. Such associations generate knowledge in order to substantiate public debates and politically influence the agendas on climate change and planted forests, forest certification standards, carbon trade/market and paper packaging products. Information on the nature of such contributions are publicly disclosed on Klabin's ESG Panel and Sustainability report. The contribution to industry associations is in accordance with the legal provisions and compliance instruments adopted by the company. BRL 2911223.09

(4.11.2.11) Indicate if you have evaluated whether your organization's engagement is aligned with global environmental treaties or policy goals

Select from:

☑ Yes, we have evaluated, and it is aligned

(4.11.2.12) Global environmental treaties or policy goals aligned with your organization's engagement on policy, law or regulation

Select all that apply

☑ Paris Agreement

☑ Kunming-Montreal Global Biodiversity Framework

☑ Sustainable Development Goal 6 on Clean Water and Sanitation

[Add row]

(4.12) Have you published information about your organization's response to environmental issues for this reporting year in places other than your CDP response?

Select from:

☑ Yes

(4.12.1) Provide details on the information published about your organization's response to environmental issues for this reporting year in places other than your CDP response. Please attach the publication.

Row 1

(4.12.1.1) Publication

Select from:

☑ In mainstream reports, in line with environmental disclosure standards or frameworks

(4.12.1.2) Standard or framework the report is in line with

Select all that apply

☑ GRI

☑ TCFD

(4.12.1.3) Environmental issues covered in publication

Select all that apply

☑ Climate change
☑ Forests
☑ Water
☑ Biodiversity

(4.12.1.4) Status of the publication

Select from:

☑ Complete

(4.12.1.5) Content elements

Select all that apply

☑ Strategy
☑ Governance
☑ Emission targets
☑ Emissions figures
☑ Commodity volumes
☑ Water accounting figures
☑ Water pollution indicators
☑ Content of environmental policies
☑ Deforestation and conversion footprint
☑ Deforestation- and conversion-free (DCF) status metrics
☑ Risks & Opportunities
☑ Value chain engagement
☑ Dependencies & Impacts
☑ Biodiversity indicators
☑ Public policy engagement

(4.12.1.6) Page/section reference

All the sections of 2023 Sustainability Report.

(4.12.1.7) Attach the relevant publication

RS_KLABIN_15_07.pdf

(4.12.1.8) Comment

This is the organization's sustainability report. The document presents the main information on the performance and management practices of the company in the environmental, social and economic fields in the last year. The content was organized based on the correspondence between the nine most relevant themes for the business, pointed out in a materiality study conducted with Klabin's stakeholders and subsequently related to the Sustainable Development Goals (SDG) of the United Nations (UN). Since 2016, Klabin has voluntarily joined the SDG. In order to implement its commitment to the SDGs, Klabin complemented its sustainability policy and assumptions to cover all these issues, creating its own agenda, which was called Klabin Goals for sustainable development. In it, objectives and goals were outlined to guide the company's strategic planning for the next 10 years.
[Add row]

C5. Business strategy

(5.1) Does your organization use scenario analysis to identify environmental outcomes?

Climate change

(5.1.1) Use of scenario analysis

Select from:
☑ Yes

(5.1.2) Frequency of analysis

Select from:
☑ Every two years

Forests

(5.1.1) Use of scenario analysis

Select from:
☑ Yes

(5.1.2) Frequency of analysis

Select from:
☑ Every two years

Water

(5.1.1) Use of scenario analysis

Select from:

☑ Yes

(5.1.2) Frequency of analysis

Select from:
☑ Every two years
[Fixed row]

(5.1.1) Provide details of the scenarios used in your organization’s scenario analysis.

Climate change

(5.1.1.1) Scenario used

Climate transition scenarios
☑ IEA NZE 2050

(5.1.1.3) Approach to scenario

Select from:
☑ Qualitative and quantitative

(5.1.1.4) Scenario coverage

Select from:
☑ Organization-wide

(5.1.1.5) Risk types considered in scenario

Select all that apply
☑ Policy
☑ Market

☑ Reputation
☑ Technology

(5.1.1.6) Temperature alignment of scenario

Select from:
☑ 1.5°C or lower

(5.1.1.7) Reference year

1994

(5.1.1.8) Timeframes covered

Select all that apply
☑ 2030
☑ 2050

(5.1.1.9) Driving forces in scenario

Regulators, legal and policy regimes
☑ Methodologies and expectations for science-based targets

Direct interaction with climate
☑ On asset values, on the corporate

(5.1.1.10) Assumptions, uncertainties and constraints in scenario

Klabin has a complete study on: (i) current and future climate conditions (ii) and the impact of climate change for the business, including about water-related risks. Thus, defining the relevant climate risks and its mitigation plans, integrating the Klabin risk management. The climate risk analysis was divided into physical risks and transition risks, covering all Klabin assets. For physical risks, two IPCC AR6 (2022) scenarios were used: SSP1-2.6 and SSP3-7.0. The SSP1-2.6 scenario assumes gradual implementation of sustainable development policies, achieving CO2 neutrality between 2070 and 2080, and keeping the global temperature below 2.0 ºC by 2100. The SSP3-7.0 scenario reflects increasing CO2 emissions throughout the 21st century, resulting in a temperature rise close to 4º C by 2100. For transition risks, the Announced Pledges Scenario (APS) and Net-Zero Emissions by 2050 (NZE) scenarios were considered. The APS assumes that all climate commitments

made by governments around the world, including Nationally Determined Contributions (NDCs) and long-term Net Zero targets, will be fully met within the promised timeframe. The NZE is a scenario that focuses on the global energy sector reaching net-zero CO2 emissions by 2050, with advanced economies achieving net-zero emissions before others. The Net-Zero Emissions by 2050 scenario is consistent with limiting the global temperature increase to 1.5C (with at least a 50% probability). Each scenario reflects different trend behaviors based on various radiative forcings from the SSP scenarios. These models have inherent uncertainties as they project future event intensity, duration, and frequency. Despite these limitations, the data comes from the latest and most accurate global models, with additional calibration for more specific and reliable projections for the analyzed asset area. It is important to highlight that longer time horizons add more uncertainty to the analysis, the further the temporal horizon, the greater the uncertainties regarding the data assumptions.

(5.1.1.11) Rationale for choice of scenario

For transition risks, the Announced Pledges Scenario (APS) and Net-Zero Emissions by 2050 (NZE) scenarios were considered. The APS assumes that all climate commitments made by governments around the world, including Nationally Determined Contributions (NDCs) and long-term Net Zero targets, will be fully met within the promised timeframe. The NZE is a scenario that focuses on the global energy sector reaching net-zero CO2 emissions by 2050, with advanced economies achieving net-zero emissions before others. The Net-Zero Emissions by 2050 scenario is consistent with limiting the global temperature increase to 1.5C (with at least a 50% probability). Each scenario reflects different trend behaviors based on various radiative forcings from the SSP scenarios. These models have inherent uncertainties as they project future event intensity, duration, and frequency. Despite these limitations, the data comes from the latest and most accurate global models, with additional calibration for more specific and reliable projections for the analyzed asset area.

Forests

(5.1.1.1) Scenario used

Climate transition scenarios

☑ IEA NZE 2050

(5.1.1.3) Approach to scenario

Select from:

☑ Qualitative and quantitative

(5.1.1.4) Scenario coverage

Select from:

☑ Organization-wide

(5.1.1.5) Risk types considered in scenario

Select all that apply

☑ Policy

☑ Market

☑ Reputation

☑ Technology

(5.1.1.6) Temperature alignment of scenario

Select from:

☑ 1.5°C or lower

(5.1.1.7) Reference year

1994

(5.1.1.8) Timeframes covered

Select all that apply

☑ 2030

☑ 2050

(5.1.1.9) Driving forces in scenario

Regulators, legal and policy regimes

☑ Methodologies and expectations for science-based targets

Direct interaction with climate

☑ On asset values, on the corporate

(5.1.1.10) Assumptions, uncertainties and constraints in scenario

Klabin has a complete study on: (i) current and future climate conditions (ii) and the impact of climate change for the business, including about water-related risks. Thus, defining the relevant climate risks and its mitigation plans, integrating the Klabin risk management. The climate risk analysis was divided into physical risks and transition risks, covering all Klabin assets. For physical risks, two IPCC AR6 (2022) scenarios were used: SSP1-2.6 and SSP3-7.0. The SSP1-2.6 scenario assumes gradual implementation of sustainable development policies, achieving CO2 neutrality between 2070 and 2080, and keeping the global temperature below 2.0 ºC by 2100. The SSP3-7.0 scenario reflects increasing CO2 emissions throughout the 21st century, resulting in a temperature rise close to 4º C by 2100. For transition risks, the Announced Pledges Scenario (APS) and Net-Zero Emissions by 2050 (NZE) scenarios were considered. The APS assumes that all climate commitments made by governments around the world, including Nationally Determined Contributions (NDCs) and long-term Net Zero targets, will be fully met within the promised timeframe. The NZE is a scenario that focuses on the global energy sector reaching net-zero CO2 emissions by 2050, with advanced economies achieving net-zero emissions before others. The Net-Zero Emissions by 2050 scenario is consistent with limiting the global temperature increase to 1.5C (with at least a 50% probability). Each scenario reflects different trend behaviors based on various radiative forcings from the SSP scenarios. These models have inherent uncertainties as they project future event intensity, duration, and frequency. Despite these limitations, the data comes from the latest and most accurate global models, with additional calibration for more specific and reliable projections for the analyzed asset area. It is important to highlight that longer time horizons add more uncertainty to the analysis, the further the temporal horizon, the greater the uncertainties regarding the data assumptions.

(5.1.1.11) Rationale for choice of scenario

For Klabin, it is relevant to analyze the SSP1-2.6 (optimistic) and SSP3-7.0 (pessimistic) scenarios because climate changes affect its forestry and industrial operations. For example, in Brazil, it was projected the changes of the main climatic factors for eucalyptus and pinus growth - precipitation, evapotranspiration and deficit / surplus water. However, 100% of forest areas of Klabin (SP, PR and SC states) are concentrated in little affected areas because in there have a good water availability and good precipitation. Increase of more intensive rains also was identified, although it does not affect forest productivity, but can affect the logistic and transportation due to access to Klabin's harvest areas is not possible in time of intensive rains. In Paraná and Santa Catarina, the Klabin's forest operations are impacted and do not work in time of intensive rains. Therefore, these events cause an increase of operational costs to Klabin. Other example is the Forest Fires. The risk of forest fire is one of the most relevant risks for Klabin, as it can affect the company's main raw material, the availability of wood. Specific studies developed by Klabin based on projection of historical data - humidity, temp. and observing the trend of temp. increase, revealed that, in 2035, 51% of the days of the year would be at high or very high risk of fire, according to the standardization of risk classes in the Monte Alegre Formula. Furthermore, the probability of heat waves intensifying and becoming more frequent increases across climate scenarios (SSP1-2.6 and SSP3-7.0) and time horizons (2030 and 2050). Temp. increase with low change in the rain distribution regime may imply an increase of evapotranspiration/risk of water deficit. This is related to decrease in wood production explained by the SPPA (System soil-plant-atmosphere): under water stress, plants reduce the stoma opening to reduce transpiration, however, photosynthesis is interrupted and impacts tree growth. The annual average loss of productivity (ton of wood) predicted until 2035 is 3% for eucalyptus and 5% for pine, if no measures are taken.

Water

(5.1.1.1) Scenario used

Climate transition scenarios

☑ IEA NZE 2050

(5.1.1.3) Approach to scenario

Select from:

☑ Qualitative and quantitative

(5.1.1.4) Scenario coverage

Select from:

☑ Organization-wide

(5.1.1.5) Risk types considered in scenario

Select all that apply

☑ Policy

☑ Market

☑ Reputation

☑ Technology

(5.1.1.6) Temperature alignment of scenario

Select from:

☑ 1.5°C or lower

(5.1.1.7) Reference year

1994

(5.1.1.8) Timeframes covered

Select all that apply

☑ 2030

☑ 2050

(5.1.1.9) Driving forces in scenario

Regulators, legal and policy regimes

☑ Methodologies and expectations for science-based targets

Direct interaction with climate

☑ On asset values, on the corporate

(5.1.1.10) Assumptions, uncertainties and constraints in scenario

Klabin has a complete study on: (i) current and future climate conditions (ii) and the impact of climate change for the business, including about water-related risks. Thus, defining the relevant climate risks and its mitigation plans, integrating the Klabin risk management. The climate risk analysis was divided into physical risks and transition risks, covering all Klabin assets. For physical risks, two IPCC AR6 (2022) scenarios were used: SSP1-2.6 and SSP3-7.0. The SSP1-2.6 scenario assumes gradual implementation of sustainable development policies, achieving CO2 neutrality between 2070 and 2080, and keeping the global temperature below 2.0 ºC by 2100. The SSP3-7.0 scenario reflects increasing CO2 emissions throughout the 21st century, resulting in a temperature rise close to 4º C by 2100. For transition risks, the Announced Pledges Scenario (APS) and Net-Zero Emissions by 2050 (NZE) scenarios were considered. The APS assumes that all climate commitments made by governments around the world, including Nationally Determined Contributions (NDCs) and long-term Net Zero targets, will be fully met within the promised timeframe. The NZE is a scenario that focuses on the global energy sector reaching net-zero CO2 emissions by 2050, with advanced economies achieving net-zero emissions before others. The Net-Zero Emissions by 2050 scenario is consistent with limiting the global temperature increase to 1.5C (with at least a 50% probability). Each scenario reflects different trend behaviors based on various radiative forcings from the SSP scenarios. These models have inherent uncertainties as they project future event intensity, duration, and frequency. Despite these limitations, the data comes from the latest and most accurate global models, with additional calibration for more specific and reliable projections for the analyzed asset area. It is important to highlight that longer time horizons add more uncertainty to the analysis, the further the temporal horizon, the greater the uncertainties regarding the data assumptions.

(5.1.1.11) Rationale for choice of scenario

Klabin has a complete study on: (i) current and future climate conditions (ii) and the impact of climate change for the business. Thus, defining the relevant climate risks and its mitigation plans, integrating the Klabin risk management. For Klabin, it is relevant to analyze the SSP1-2.6 (optimistic) and SSP3-7.0 (pessimistic) scenarios because climate changes affect its forestry and industrial operations. For example, the physical risk of factory flooding was identified. This risk has a trend to become more frequent because of climate change and it could impact on Klabin's production, whether pluvial, caused by intense rain, or riverine, caused by the overflow of rivers close to the factories. Example of studied climatic variables: amount and frequency of intense drought, minimum temperature, average temperature, potential evapotranspiration and water deficit. The analyses of climate scenarios, SSP1-2.6 and SSP3-7.0, was based on historical climate data in the region (1994-2014), and the time horizons of 2030 and 2050. The results were generated through an ensemble that considers six climate models that have better representation in Klabin's areas (NorESM2-MM, GFDL-ESM4, MRI-ESM2-0, MIROC6, IPSL-CM6A-LR, ACCESS-ESM1- 5). For some industrial units we also use the Aqueduct Water Risk.

Climate change

(5.1.1.1) Scenario used

Physical climate scenarios

☑ RCP 7.0

(5.1.1.2) Scenario used SSPs used in conjunction with scenario

Select from:

☑ SSP3

(5.1.1.3) Approach to scenario

Select from:

☑ Qualitative and quantitative

(5.1.1.4) Scenario coverage

Select from:

☑ Organization-wide

(5.1.1.5) Risk types considered in scenario

Select all that apply

☑ Policy

☑ Market

☑ Reputation

☑ Technology

(5.1.1.6) Temperature alignment of scenario

Select from:

☑ 2.0°C - 2.4°C

(5.1.1.7) Reference year

1994

(5.1.1.8) Timeframes covered

Select all that apply

☑ 2030

☑ 2050

(5.1.1.9) Driving forces in scenario

Regulators, legal and policy regimes

☑ Methodologies and expectations for science-based targets

Direct interaction with climate

☑ On asset values, on the corporate

(5.1.1.10) Assumptions, uncertainties and constraints in scenario

Klabin has a complete study on: (i) current and future climate conditions (ii) and the impact of climate change for the business, including about water-related risks. Thus, defining the relevant climate risks and its mitigation plans, integrating the Klabin risk management. The climate risk analysis was divided into physical risks and transition risks, covering all Klabin assets. For physical risks, two IPCC AR6 (2022) scenarios were used: SSP1-2.6 and SSP3-7.0. The SSP1-2.6 scenario assumes gradual implementation of sustainable development policies, achieving CO2 neutrality between 2070 and 2080, and keeping the global temperature below 2.0 ºC by 2100. The SSP3-7.0 scenario reflects increasing CO2 emissions throughout the 21st century, resulting in a temperature rise close to 4º C by 2100. For transition risks, the Announced Pledges Scenario (APS) and Net-Zero Emissions by 2050 (NZE) scenarios were considered. The APS assumes that all climate commitments made by governments around the world, including Nationally Determined Contributions (NDCs) and long-term Net Zero targets, will be fully met within the promised timeframe. The NZE is a scenario that focuses on the global energy sector reaching net-zero CO2 emissions by 2050, with advanced economies achieving net-zero emissions before others. The Net-Zero Emissions by 2050 scenario is consistent with limiting the global temperature increase to 1.5C (with at least a 50% probability). Each scenario reflects different trend behaviors based on various radiative forcings from the SSP scenarios. These models have inherent uncertainties as they project future event intensity, duration, and frequency. Despite these limitations, the data comes from the latest and most accurate global models, with additional calibration for more specific and reliable projections for the analyzed asset area. It is important to highlight that longer time horizons add more uncertainty to the analysis, the further the temporal horizon, the greater the uncertainties regarding the data assumptions.

(5.1.1.11) Rationale for choice of scenario

The SSP1-2.6 scenario considers that sustainable development policies take place gradually, reaching CO2 emissions neutrality between 2070 and 2080 and keeping the average global temperature below 2.0 ºC in 2100. The SSP3-7.0 scenario, on the other hand, reflects the growth of CO2 emissions throughout the 21st century, reaching levels of average temperature increase close to 4C by 2100. For Klabin, it is relevant to analyze the SSP1-2.6 (optimistic) and SSP3-7.0 (pessimistic) scenarios because climate changes affect its forestry and industrial operations. For example, the physical risk of landslides in operational areas was identified. This risk is likely to become more frequent due to climate change and could affect Klabin's production, caused by intense rains. Example of studied climatic variables: amount and frequency of intense drought, minimum temperature, average temperature, potential evapotranspiration and water deficit. The analyses of climate scenarios, SSP1-2.6 and SSP3-7.0, was based on historical climate data in the region (1994-2014), and the time horizons of 2030 and 2050. The results were generated through an ensemble that considers six climate models that have better representation in Klabin's areas (NorESM2-MM, GFDL-ESM4, MRI-ESM2-0, MIROC6, IPSL-CM6A-LR, ACCESS-ESM1- 5). For some industrial units we also use the Aqueduct Water Risk.
[Add row]

(5.1.2) Provide details of the outcomes of your organization’s scenario analysis.

Climate change

(5.1.2.1) Business processes influenced by your analysis of the reported scenarios

Select all that apply

☑ Risk and opportunities identification, assessment and management

☑ Strategy and financial planning

☑ Resilience of business model and strategy

☑ Target setting and transition planning

(5.1.2.2) Coverage of analysis

Select from:

☑ Organization-wide

(5.1.2.3) Summarize the outcomes of the scenario analysis and any implications for other environmental issues

The company has implemented the Task Force on Climate-Related Financial Disclosure methodology. Therefore, scenarios for the main drivers of change in the economy contemplated by the TCFD. The use of scenario analysis in TCFD are also studied and considered. The climate risk analysis was divided into physical risks and transition risks, encompassing all Klabin assets. For physical risks, two IPCC scenarios were employed: SSP1-2.6 and SSP3-7.0. The SSP1-2.6 scenario anticipates the gradual implementation of sustainable development policies, achieving CO2 neutrality between 2070 and 2080, and keeping the global temperature rise below 2.0ºC by 2100. The SSP3-7.0 scenario envisions increasing CO2 emissions throughout the 21st century, leading to a temperature increase close to 4ºC by

2100. For transition risks, the Announced Pledges Scenario (APS) and Net-Zero Emissions by 2050 (NZE) scenarios were considered. The APS assumes that all climate commitments made by governments globally, including Nationally Determined Contributions (NDCs) and long-term Net Zero targets, will be fully achieved within the promised timeframe. The NZE scenario, lined up the Paris Agreement, focuses on the global energy sector reaching net-zero CO2 emissions by 2050, with advanced economies achieving net-zero emissions sooner. The Net-Zero Emissions by 2050 scenario aligns with limiting the global temperature increase to 1.5ºC (with at least a 50% probability). The analyses of climate scenarios were based on historical climate data in the region (1994-2014), and the time horizons of 2030 and 2050. Besides transition scenarios, the establishment of carbon pricing - a cap and trade system - by regulatory means in Brazil, the financial impact calculated for this risk is more than BRL 33,406,046. For this financial impact valuation, we considered: - Only units with GHG emissions above 25,000 tCO2eq/year were considered (Monte Alegre, Puma, Otacílio Costa and Goiana). - Start year of the regulated market in Brazil: 2027. - Allowance price: 10/tCO2eq (PMR, 2016). - Allowance prices in the scenarios and horizons consider projections based on emerging markets. Given this scenario of regulatory risk and the financial impact, a series of actions were taken by Klabin: (i) inclusion of carbon pricing risk in the analysis and, subsequently, the company's risk matrix (ii) internal carbon pricing studies to identify the cost of the financial impact for the company (iii) study of a pipeline of low carbon technologies that should be implemented in the medium and long term to reduce carbon emissions. To identify and prioritize technologies, the company developed a Marginal Abatement Cost Curve that makes it possible to evaluate the most cost-effective technologies Example of technologies: that turns wood waste into gas. This gas can be used in the industrial process, increasing the use of renewable energy. (iv) development of a robust, science-based carbon reduction target. The lower the emission the less exposed to the impact of carbon pricing the company will be. Klabin S.A commits to reduce scope 1 and 2 GHG emissions 25% per ton of pulp, paper and packaging by 2025 from a 2019 base year; and 49% until 2035 Considering all the above actions, Klabin results in the internal approval of a series of technologies that will be implemented to reduce emissions and the financial impact of a possible carbon pricing. And the approval of a science-based carbon reduction target. It is important to mention that these risks are included in the company's risk matrix, with the risk management and financial area accompanying the mitigation actions.

Forests

(5.1.2.1) Business processes influenced by your analysis of the reported scenarios

Select all that apply

☑ Risk and opportunities identification, assessment and management

☑ Strategy and financial planning

☑ Resilience of business model and strategy

(5.1.2.2) Coverage of analysis

Select from:

☑ Organization-wide

(5.1.2.3) Summarize the outcomes of the scenario analysis and any implications for other environmental issues

The company has implemented the Task Force on Climate-Related Financial Disclosure methodology. Therefore, scenarios for the main drivers of change in the economy contemplated by the TFCD. The use of scenario analysis in TCFD are also studied and considered. The climate risk analysis was divided into physical risks

and transition risks, encompassing all Klabin assets. For physical risks, two IPCC scenarios were employed: SSP1-2.6 and SSP3-7.0. The SSP1-2.6 scenario anticipates the gradual implementation of sustainable development policies, achieving CO2 neutrality between 2070 and 2080, and keeping the global temperature rise below 2.0ºC by 2100. The SSP3-7.0 scenario envisions increasing CO2 emissions throughout the 21st century, leading to a temperature increase close to 4ºC by 2100. For transition risks, the Announced Pledges Scenario (APS) and Net-Zero Emissions by 2050 (NZE) scenarios were considered. The APS assumes that all climate commitments made by governments globally, including Nationally Determined Contributions (NDCs) and long-term Net Zero targets, will be fully achieved within the promised timeframe. The NZE scenario, lined up the Paris Agreement, focuses on the global energy sector reaching net-zero CO2 emissions by 2050, with advanced economies achieving net-zero emissions sooner. The Net-Zero Emissions by 2050 scenario aligns with limiting the global temperature increase to 1.5ºC (with at least a 50% probability). The analyses of climate scenarios were based on historical climate data in the region (1994-2014), and the time horizons of 2030 and 2050. Klabin has a complete study on current and future climate conditions and the impact of climate change in it forestry operation regions. The increase in average temp. and changes in the frost regime can cause hot and dry conditions sufficient to favor the occurrence and protection of fires and forest fires. The risk of forest fire is one of the most relevant risks for Klabin, as it can affect the company's main raw material, the availability of wood. Specific studies developed by Klabin based on projection of historical data - humidity, temp. and observing the trend of temp. increase, revealed that, in 2035, 51% of the days of the year would be at high or very high risk of fire, according to the standardization of risk classes in the Monte Alegre Formula. Furthermore, the probability of heat waves intensifying and becoming more frequent increases across climate scenarios (SSP1-2.6 and SSP3-7.0) and time horizons (2030 and 2050). Temp. increase with low change in the rain distribution regime may imply an increase of evapotranspiration/risk of water deficit. This is related to decrease in wood production explained by the SPPA (System soil-plant-atmosphere): under water stress, plants reduce the stoma opening to reduce transpiration, however, photosynthesis is interrupted and impacts tree growth. The annual average loss of productivity (ton of wood) predicted until 2035 is 3% for eucalyptus and 5% for pine, if no measures are taken.

Water

(5.1.2.1) Business processes influenced by your analysis of the reported scenarios

Select all that apply

☑ Risk and opportunities identification, assessment and management

☑ Strategy and financial planning

☑ Resilience of business model and strategy

☑ Capacity building

☑ Target setting and transition planning

(5.1.2.2) Coverage of analysis

Select from:

☑ Organization-wide

(5.1.2.3) Summarize the outcomes of the scenario analysis and any implications for other environmental issues

The company has implemented the Task Force on Climate-Related Financial Disclosure methodology. Therefore, scenarios for the main drivers of change in the economy contemplated by the TCFD. The use of scenario analysis in TCFD are also studied and considered. The climate risk analysis was divided into physical risks and transition risks, encompassing all Klabin assets. For physical risks, two IPCC scenarios were employed: SSP1-2.6 and SSP3-7.0. The SSP1-2.6 scenario anticipates the gradual implementation of sustainable development policies, achieving CO2 neutrality between 2070 and 2080, and keeping the global temperature rise below 2.0ºC by 2100. The SSP3-7.0 scenario envisions increasing CO2 emissions throughout the 21st century, leading to a temperature increase close to 4ºC by 2100. For transition risks, the Announced Pledges Scenario (APS) and Net-Zero Emissions by 2050 (NZE) scenarios were considered. The APS assumes that all climate commitments made by governments globally, including Nationally Determined Contributions (NDCs) and long-term Net Zero targets, will be fully achieved within the promised timeframe. The NZE scenario, lined up the Paris Agreement, focuses on the global energy sector reaching net-zero CO2 emissions by 2050, with advanced economies achieving net-zero emissions sooner. The Net-Zero Emissions by 2050 scenario aligns with limiting the global temperature increase to 1.5ºC (with at least a 50% probability). The analyses of climate scenarios were based on historical climate data in the region (1994-2014), and the time horizons of 2030 and 2050. Besides physical and transition scenarios, the water stressed through WRI Aqueduct tool and relevance of units in company's financial and business strategic were used in unit's prioritization to water-related climate scenarios analysis. For example, after prioritization, 12 units were considered relevant in company's financial and business strategic, considering risk of reduced water availability: PUMA, Monte Alegre, Goiana, Franco da Rocha, Horizonte, Jundiai-DI, Jundiai-TP, Rio Verde, Feira de Santana, Piracicaba, São Leopoldo and Suzano. The financial impact calculated for this risk is more than BRL 191,000,000. For this financial impact valuation, we considered some assumptions: -A 20% reduction in water withdrawal for 20 days due to meteorological droughts, based on a 2021 decree from Paraná's environmental agency during an intense drought in the region. The 20-day period is based on the historical average number of days with river flows that supply the factories below the limit flow. -The occurrence of a water reduction event every 2 years, given historical records of water reduction or unavailability events and the increasing frequency of extreme weather events. -Revenues for the calculation of the current impact and multi-annual revenues maintained over time (2030 and 2050), considering a real discount rate to bring it to present value. Klabin has mitigation, resilience and adaptation strategies for the impacts caused by climate change, which include actions aimed at water resource management. To address water scarcity, Klabin is working to reduce water withdrawal in all its industrial units through its Water Management Working Group. This group aims to identify opportunities to reduce water withdrawal and consumption across all operations. They are also studding alternatives for unit's dependent on a single water source to avoid production impacts. Additionally, Klabin has the internal pricing of water to reinforce its commitment to reducing water usage across all operations. In its forest areas, Klabin operates with the concept of Solidary Hydro Management, a strategy that balances forest and water production. This approach integrates the water needs of neighboring communities and ecological processes, starting from the forestry planning stage, which considers watersheds and neighboring water catchment points. Regarding mitigation measures, Klabin conducts daily monitoring of the river flow and rainfall volumes at all its units, linking this data to the National Water and Basic Sanitation Agency (ANA) database. The units also have an action plan for scenarios involving 10%, 20%, and 30% reductions in water catchment, anticipating potential requests from environmental agencies due to the ongoing water crisis. These plans include temporary reductions in catchment, which may or may not impact production, and long-term actions prioritizing the identification of alternative water sources.
[Fixed row]

(5.2) Does your organization's strategy include a climate transition plan?

(5.2.1) Transition plan

Select from:

☑ Yes, we have a climate transition plan which aligns with a 1.5°C world

(5.2.3) Publicly available climate transition plan

Select from:

☑ Yes

(5.2.4) Plan explicitly commits to cease all spending on, and revenue generation from, activities that contribute to fossil fuel expansion

Select from:

☑ No, and we do not plan to add an explicit commitment within the next two years

(5.2.6) Explain why your organization does not explicitly commit to cease all spending on and revenue generation from activities that contribute to fossil fuel expansion

Klabin's decarbonization plan includes setting short-term science-based targets and the goal of achieving carbon neutrality (net zero). The company is committed to replacing fossil fuels with renewable sources, with the expectation that, with technological advancements and the increased availability of renewable alternatives, it will be possible to completely eliminate the use of fossil fuels. In the interim, Klabin uses fuels with lower emission factors, such as natural gas, which serves as a transitional alternative.

(5.2.7) Mechanism by which feedback is collected from shareholders on your climate transition plan

Select from:

☑ We have a different feedback mechanism in place

(5.2.8) Description of feedback mechanism

This document aims to inform stakeholders of Klabin's ambition, actions and responsibilities in addressing the impacts of climate change, through scenario analysis as a central element to base the company's financial planning and decision-making. In addition, it informs the identification and assessment of climate-related risks and opportunities and respective resilience, adaptation and mitigation strategies, in line with TCFD recommendations. The climate transition plan is available on the KLABIN ESG PANEL (https://esg.klabin.com.br/web/guest/mudancas-do-clima). In this document there is a paragraph on the feedback mechanism, with the email of complaint mechanism of climate-related matters and phone for contact. All demands received by the feedback mechanism are analyzed and answered. In the ESG panel there is a Contact Us - Sustainability channel, where the Governance for Sustainability area receives questions, suggestions and complaints, collects the requested information with the responsible areas and returns the demand to the requester.

(5.2.9) Frequency of feedback collection

Select from:

☑ Annually

(5.2.10) Description of key assumptions and dependencies on which the transition plan relies

Our Climate Transition Plan, based on the pillars of the TCFD, is composed of Governance, which addresses the supervision of the Board of Directors and the Structure and responsibilities of Klabin's Climate and Carbon area; the metrics and targets in the context of mitigation, bringing data from the GHG emissions inventory, the history of GHG emissions intensity results and science-based targets; the Management of climate risks and opportunities, including climate scenario analysis, risk assessment and opportunities, the processes for managing climate risks and the identification, assessment and monitoring of risks and impacts are presented; the Climate mitigation, resilience, and adaptation strategies, with the decarbonization plan and financial planning, the engagement of the value chain, the carbon offsetting and removal strategy and the climate resilience and adaptation strategy. The dependencies that are part of the Climate Transition Plan are the company's assets, water availability and forests. Klabin prepares a MACC to identify and prioritize mitigation measures/low carbon technologies, as well as to stimulate business opportunities. It is possible to assess/compare the (i) cost of regulation x (ii) the cost of investing in low carbon technology – BRL/tCO2 both. As the MACC presents the marginal cost of carbon, which facilitates the company in decisions such as investing in low carbon technologies or paying the fee or allowance. Serving as a basis for comparing the price of carbon when it is regulated in Brazil. Thus, by prioritizing technologies, Klabin has a pipeline of technologies that will be implemented in the short and medium term to achieve its carbon reduction target and take advantage of opportunities to increase resource efficiency. To improve internal carbon pricing analyzes, Klabin extended the study considering the impact of carbon pricing on the chain, especially in the purchase of inputs that may pass on the cost of carbon pricing.

(5.2.11) Description of progress against transition plan disclosed in current or previous reporting period

The company has already invested more than US 630 million in low-carbon equipment with the aim of expanding its energy matrix from renewable sources and reducing GHG emissions. These actions are directly linked to the risk related to carbon pricing. The main advances in relation to the transition plan are related to the implementation of projects to replace fossil fuels with renewable fuels. The main projects to reduce emissions include the Tall Oil plant, using Crude Tall Oil (CTO), which is a biofuel made from the resin contained in pine wood, used in the production of softwood pulp; the biomass boiler, which consists of generating steam from bark and chips for internal use or to generate electricity; biomass gasification, which is the generation of synthesis gas (Syngas) from biomass (chips) used in the lime kilns of the pulp and paper mills and the start of the project to replace fuel oil with bio-oil in the lime kilns of the Monte Alegre unit. In addition, other progress is related to value chain engagement, where in 2023 we made significant progress in implementing an engagement program with our suppliers and customers aimed at capacity building, training, and improving data quality. These actions are fundamental to the company's decarbonization plan.

(5.2.12) Attach any relevant documents which detail your climate transition plan (optional)

Klabin_CTP_2024 - English.pdf

(5.2.13) Other environmental issues that your climate transition plan considers

Select all that apply

☑ Forests

☑ Water

(5.2.14) Explain how the other environmental issues are considered in your climate transition plan

The assessment following TCFD recommendations considered dependencies and impacts related to water. For example, the analysis of physical variables identified the threat of meteorological droughts. In such cases, there is a risk of reduced water availability, impacting Klabin's direct operations. Water use is a dependency for both the company's forestry and industrial operations. Klabin's main raw material is wood from planted forest to attend the demand for pulp and paper production. Due to the relevance for the organization, forest-related issues are integrated into a companywide risk assessment framework. In this way, risks and opportunities also related to water and forests are directly covered in our transition plan.
[Fixed row]

(5.3) Have environmental risks and opportunities affected your strategy and/or financial planning?

(5.3.1) Environmental risks and/or opportunities have affected your strategy and/or financial planning

Select from:

☑ Yes, both strategy and financial planning

(5.3.2) Business areas where environmental risks and/or opportunities have affected your strategy

Select all that apply

☑ Products and services

☑ Upstream/downstream value chain

☑ Investment in R&D

☑ Operations

[Fixed row]

(5.3.1) Describe where and how environmental risks and opportunities have affected your strategy.

Products and services

(5.3.1.1) Effect type

Select all that apply

☑ Risks

☑ Opportunities

(5.3.1.2) Environmental issues relevant to the risks and/or opportunities that have affected your strategy in this area

Select all that apply

☑ Climate change

☑ Forests

☑ Water

(5.3.1.3) Describe how environmental risks and/or opportunities have affected your strategy in this area

Klabin offers to the market renewable products with low carbon footprint – paper for packaging and its own packaging (sacks and cardboard boxes). The raw material is wood from planted forest with sustainable management. The trend is the market increases even more the demand for these materials replacing fossil packaging (ex. plastic). Thus, the company is increasingly developing commercial strategies linked to carbon. In addition to the commercial strategy of adding value through the products' carbon footprint performance, the company also invests in research and development to replace carbon intensive products. Klabin is conducting carbon footprint studies with results that are being shared with customers, and which can be incorporated into the packaging produced with Klabin's paper. The company included in its planning for 2020 and 2030, in Klabin Sustainable Development Goals, the expansion of the carbon footprint studies of its products to demonstrate to the market its competitive advantage: low-carbon products. Around three projects for labeling the carbon footprint of packaging made from Klabin's paper are being studied together with customers. We have a real case study that it considers the research and development area advances in the portfolio of the other biobased materials replacing fossil-based raw materials such as microfibrillated cellulose (MFC). MFC is an example of the oppportunity to replacing fossil based material in a variety of applications in the packaging. The strategic planning of the company that considers the period of 2020 and 2030 includes expansion of the production and negotiation of products to replacing fossil based material, being a differential for the company's growth. As a result of this work, the company implemented in 2019 a pilot plant that simulates a plant to carry out studies and industrial tests in research fronts related to lignin and microfibrillated cellulose (MFC), enabling the production of these materials that may guide future opportunities of business for the company.

Upstream/downstream value chain

(5.3.1.1) Effect type

Select all that apply

☑ Risks

☑ Opportunities

(5.3.1.2) Environmental issues relevant to the risks and/or opportunities that have affected your strategy in this area

Select all that apply

☑ Climate change

☑ Forests

☑ Water

(5.3.1.3) Describe how environmental risks and/or opportunities have affected your strategy in this area

Supplier management is part of the strategy of the company's sustainability and supply areas. In recent years, the company has evolved in this agenda to mitigate risks related to the supply chain and due to its socio-environmental responsibility. The company adopts the Ecovadis platform to assess suppliers as well as their demand. In addition, Klabin is preparing to incorporate elements related to climate management in its supplier assessment - emission reduction and adaptation - considering the Klabin Sustainable Development Goals with targets and actions for 2020-2030. As a real result of this Program, 15% of evaluated suppliers already set a science-based target and more than 30% has actions to reduce their GHG emissions. The suppliers are also assessing their location in water-stressed areas. Further, Klabin has a technical assistance and technology transfer partnership for the wood suppliers. Result of the forestry research is the development of pine and eucalyptus seedlings that are more resistant to changes in the local climate, such as, for example, temperature increase. These seedlings and management are shared with suppliers, maintaining the supply of wood, and can also increase productivity. Klabin is also committed to 100% FSC Chain of Custody, requiring suppliers to comply with its principles. The Wood Purchase Policy complements the Sustainability Policy, enhancing supplier monitoring and prohibiting negotiations with non-compliant suppliers, particularly those involved in deforestation.

Investment in R&D

(5.3.1.1) Effect type

Select all that apply

☑ Risks

☑ Opportunities

(5.3.1.2) Environmental issues relevant to the risks and/or opportunities that have affected your strategy in this area

Select all that apply

☑ Climate change

☑ Forests

☑ Water

(5.3.1.3) Describe how environmental risks and/or opportunities have affected your strategy in this area

In addition to the production of cellulose, packaging paper and packaging, such as bags and cardboard boxes, the company operates in the development of materials for the bioeconomy. The company believes in a "renewable future", which is why, in recent years, it has expanded its focus on innovation and high technology to respond to market demands and seek new growth cycles, aiming to develop initiatives aimed at sustainable management and operational excellence. Investments in the bioeconomy is one of the elements of the Klabin Sustainable Development Goals with targets and actions for 2020 -2030. Klabin issued US 500 million of green bonds to the market, part of this money raised will be used to invest in the development of projects within the scope of the bioeconomy and in low carbon technologies. This is described in the green bond issuance framework. The company has a technology center for the development and testing of new products from wood, which are renewable and low carbon products. These producers are important options for consumers in a low carbon economy. Lignin is an example. It is a polymer found in tree/wood. This material has variety applications can replace fossil based phenols. In addition, the company is researching other derivatives such as carbon fiber. Another example/result is MFC to replacing fossil based material in a variety of applications in the packaging. The strategic planning of the company that considers the period of 2020 and 2030 includes expansion of the production and negotiation of products to replacing fossil based material, being a differential for the company's growth. As a result of this work, the company implemented a pilot plant that simulates a plant to carry out studies and industrial tests in research fronts related to lignin and microfibrillated cellulose (MFC), enabling the production of these materials that may guide future opportunities of business for the company.

Operations

(5.3.1.1) Effect type

Select all that apply

☑ Risks

☑ Opportunities

(5.3.1.2) Environmental issues relevant to the risks and/or opportunities that have affected your strategy in this area

Select all that apply

☑ Climate change

☑ Forests

☑ Water

(5.3.1.3) Describe how environmental risks and/or opportunities have affected your strategy in this area

The strategy of implementing low carbon technologies is fundamental for the company to consolidate its business strategy of being part of the low carbon economy. Klabin has a strong history of developing actions and implementing technologies that allow for the reduction of emissions. Reducing emissions allows the company to

continue to be recognized by the market as a company that delivers sustainable products, with a low carbon footprint, for example. In addition, it is resource efficient, as it allows greater use of forest biomass from its own operation in detriment of fossil fuel. In recent years, Klabin has incorporated new low carbon technologies into its operations. These technologies bring financial returns to the company, with a reduction in operating costs, in addition to reducing carbon. The company prepared a marginal abatement cost curve (MACC) to identify the cost or avoided cost x potential for carbon reduction per technology. All the projects evaluated so far have brought economic benefits. Example, the technology of tail oil (originated from the production of cellulose can be used as biofuel) which for each ton of reduced carbon brings an avoided cost of BRL 217. Therefore, the operations (with low carbon technologies) are an important opportunity. On the company's sustainable development agenda, Klabin Sustainable Development Goals, with targets and actions for 2020 -2030 includes the expansion of technologies that reduce emissions for the company and avoid costs, such as the implementation of biomass gasification in other units. This technology expands the company's renewable energy generation with a reduction in fossil fuel consumption. Thus, because of this work three technologies were implemented: tail and biomass gasification in Puma Unit, and boiler exchange in Piracicaba unit. Klabin also has a Water Management Working Group made up of a multidisciplinary team, including representatives from the Pulp, Paper, and Packaging businesses, Research and Development, Innovation, and Environmental Responsibility areas. The group's goal is to identify risks and opportunities relation to water, including reduction in water withdrawal and consumption across all Klabin's operations, focused on transition to water efficient and low water intensity technologies and products. These integrated initiatives ensure operational sustainability and strengthen Klabin's position as a leader in environmentally responsible practices within the industrial sector. Forest surveillance plays a fundamental role in environmental protection, public safety, economic stability and combating climate change. In terms of prevention and early detection of fires, continuous surveillance allows for early detection of fires, enabling a rapid response to prevent their spread. Klabin invests more than 33 MM per year in forest surveillance.
[Add row]

(5.3.2) Describe where and how environmental risks and opportunities have affected your financial planning.

Row 1

(5.3.2.1) Financial planning elements that have been affected

Select all that apply

☑ Revenues

☑ Assets

(5.3.2.2) Effect type

Select all that apply

☑ Risks

☑ Opportunities

(5.3.2.3) Environmental issues relevant to the risks and/or opportunities that have affected these financial planning elements

Select all that apply

☑ Climate change

(5.3.2.4) Describe how environmental risks and/or opportunities have affected these financial planning elements

Since 2022, the variable remuneration of the CEO and all directors has depended on meeting sustainability targets, including the reduction of GHG emissions validated by SBTi. These measures show the relevance of sustainability, including climate objectives, in the routine of top management and employees and in financial planning. Between 2003 and 2023, Klabin reduced 69% of its specific GHG emissions (scope 1 and 2), driven by the replacement of non-renewable fuel consumption with renewable fuels, contributing to the transition to a low-carbon economy. The company has already invested more than US 630 million in low-carbon equipment with the aim of expanding its energy matrix from renewable sources and reducing GHG emissions. These actions are directly linked to the risk related to carbon pricing. The 100% clean energy matrix, carbon credits, and renewable energy certificates offer significant benefits. Post-COP21 and a new Brazilian Environmental Payment Law may provide financial opportunities for Klabin's native and preserved forests. The company has 316 thousand hectares of native forests preserved in the Atlantic Forest. In 2018, the PUMA unit became the first in Brazil's pulp sector to achieve ISO 50001 certification, enhancing its energy efficiency. We rely on the involvement of our employees, through the Internal Energy Conservation Committee (CICE). Through this committee, professionals look for opportunities to reduce consumption of energy, steam, compressed air and eliminate waste. Klabin is also committed to energy production and progressively increasing its renewable energy matrix, produced from biomass and black liquor. 68% of the total electricity consumed comes from thermal and hydraulic energy generated by the company itself. The rest of the electricity is purchased from the system, 100% of which comes from renewable sources, with the purchase of IRECs. In 2023, the Puma Unit sold 491,747.60 MWh to the National Electric System, representing 14% of the total electricity produced by Klabin. The company aims, until 2030, is to zero its Scope 2 emissions, with the use of part of the IRECs as one of the scenarios considered, the remaining part would be sold, generating revenue for the company. Klabin has a specific Climate and Carbon area, which is part of the company's Sustainability area. The structure has a cost center dedicated to projects linked to climate change and carbon management.

Row 2

(5.3.2.1) Financial planning elements that have been affected

Select all that apply

☑ Revenues

☑ Assets

(5.3.2.2) Effect type

Select all that apply

☑ Risks

☑ Opportunities

(5.3.2.3) Environmental issues relevant to the risks and/or opportunities that have affected these financial planning elements

Select all that apply

☑ Forests

(5.3.2.4) Describe how environmental risks and/or opportunities have affected these financial planning elements

Klabin is a pulp and paper company focused on innovation to meet the global demand for sustainable products, reducing reliance on fossil fuels. With over 374k hectares of planted forests, Klabin's Strategic Forestry Planning Prog. optimize wood production processes for minimal operating costs and sustainable management. This long-term planning, spanning 30 years, is crucial for the company's sustainability strategy, which involves expanding production areas and studying wood purchase vol. Klabin uses Remsoft soft. for long-term wood supply planning, determining production area expansion and wood purchase needs. The issues related to forests in the business objectives are to meet the demand for wood to supply the factory. The strategic timber supply plan was prepared based on a supply and demand study conducted every two years; in 2020 and 2022, it was conducted, and the raw material stock for another 15 years was analysed, presenting a positive result for the company. The strategy adopted was to invest in the expansion with a forestry develop. program "Plant with Klabin". It is a program for small, medium and large rural producers. They are invited to particip. Klabin's forestry expan. process through the cult. of pine and eucalyptus, and receive free technical assistance and a guarantee of a minimum purchase price per ton, provided that they certify their properties, as provided for in the contract. Approximately R15.2 MM was invested in Plant with Klabin in 2023; 1,797 ha were established; and 26 new partnerships were signed. All "Plante with Klabin" partners receive the benefit of participating in 2 other Klabin initiatives: the Legal Forest (help partners adapt their properties in accordance with the Brazil Forest Code) and Forest Supplier Certif. (help partners obtain FSC certify. for their forest managt.). In addition to the wood supply strategy, Klabin also considers develop. strategies for responsible land use. Since 2015, Klabin has supported the certific. of its suppliers to ensure a sustainable source of raw material and add value to regional production. In 2023, there were approximately 240 certified suppliers, equivalent to 106,993 certified ha. Klabin invested R1.8 million in the Supplier Certific. Program. Klabin is committed to long-term sustainable development, ensuring a steady supply of FSC certified wood through the Forest Supplier Certif. Program and aligning with Corporate Sust. Goals, and the Non-Conversion of the Natural Ecosys

Row 3

(5.3.2.1) Financial planning elements that have been affected

Select all that apply

☑ Revenues

☑ Assets

(5.3.2.2) Effect type

Select all that apply

☑ Risks

☑ Opportunities

(5.3.2.3) Environmental issues relevant to the risks and/or opportunities that have affected these financial planning elements

Select all that apply

☑ Water

(5.3.2.4) Describe how environmental risks and/or opportunities have affected these financial planning elements

Klabin implemented the TCFD methodology, including scenarios for the main drivers of change in the economy. Due to the nature of the business, Klabin uses scenario analysis to identify, assess, and price the impacts of risks and opportunities related to climate changes in its operations and value chain (upstream and downstream). The analyzed scenarios consider physical and transition variables, based on IPCC (SSP1-2.6 and SSP3-7.0) and WRI Aqueduct scenarios. Meteorological droughts are a physical risk identified with a significant impact on our operations and value chain. In such cases, there is a risk of reduced water availability, impacting Klabin's direct operations. Identifying physical risks with mitigation plans helps the company prepare to support the intensification of climate change impacts without prejudice. The actions are considered medium-term, with a time horizon of 10 to 20 years. This time horizon was selected because the growth periods for eucalyptus and pine wood are 7 and 15 years, respectively. Further, the company aligns its financial strategy with its sustainability strategy. For example, Klabin priced the issuance of US500 million in senior debt securities with full guarantee linked to sustainability performance targets with a final term for 2030, with 2025 as the trigger for pricing the interest rate. The Key Performance Indicators (KPIs) are aligned with three of the Klabin Sustainable Development Goals (KODS), which, in turn, are linked to the Company's growth plan. The securities related to this issue are subject to coupon readjustments (interest) in the event of reaching or not the goals established by the Company in 2025, as defined by the Sustainability Performance Trigger (SPT). The water 2030 target defined in Sustainability Linked Bond (SLB) is "reduce by 20% the specific consumption of industrial water (compared to 2018)" and SPT defined to reach in 2025, is "water consumption equal to or below 3.68 m³ per ton of production. As a result of this target, Klabin reduced its unit's water consumption by 29.8% from 2018 to 2023 (from 4.42 m³/ton in 2018 to 3.10 m³/ton in 2023). The challenge now is to keep these results and continue improving this target through actions to optimize water consumption in all company.
[Add row]

(5.4) In your organization's financial accounting, do you identify spending/revenue that is aligned with your organization's climate transition?

	Identification of spending/revenue that is aligned with your organization's climate transition	Methodology or framework used to assess alignment with your organization's climate transition
	Select from: ☑ Yes	*Select all that apply* ☑ Other methodology or framework

[Fixed row]

(5.4.1) Quantify the amount and percentage share of your spending/revenue that is aligned with your organization's climate transition.

Row 1

(5.4.1.1) Methodology or framework used to assess alignment

Select from:

☑ Other, please specify :OPEX

(5.4.1.5) Financial metric

Select from:

☑ OPEX

(5.4.1.6) Amount of selected financial metric that is aligned in the reporting year (currency)

1600000

(5.4.1.7) Percentage share of selected financial metric aligned in the reporting year (%)

0.28

(5.4.1.8) Percentage share of selected financial metric planned to align in 2025 (%)

0.5

(5.4.1.9) Percentage share of selected financial metric planned to align in 2030 (%)

1

(5.4.1.12) Details of the methodology or framework used to assess alignment with your organization’s climate transition

Since 2022, Klabin has had a specific climate operating expense to develop and manage climate change issues, such as: (i) developing and executing climate transition and decarbonization plans; (ii) managing internal carbon credit projects; (iii) developing and disseminating the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD); (iv) organizing and consolidating GHG reduction projects; (iv) organize and consolidate GHG reduction projects; (v) manage GHG emissions and the GHG inventory; (vi) prepare Klabin's value chain engagement strategy, with a focus on reducing GHG emissions throughout the value chain; and (vii) execute the value chain engagement strategy with relevant suppliers and customers. Klabin intends to increase climate OPEX to achieve its climate transition plan in the coming years. OPEX in relation to the OPEX of the corporate administrative areas.
[Add row]

(5.9) What is the trend in your organization’s water-related capital expenditure (CAPEX) and operating expenditure (OPEX) for the reporting year, and the anticipated trend for the next reporting year?

(5.9.1) Water-related CAPEX (+/- % change)

89

(5.9.2) Anticipated forward trend for CAPEX (+/- % change)

15

(5.9.3) Water-related OPEX (+/- % change)

-51

(5.9.4) Anticipated forward trend for OPEX (+/- % change)

-10

(5.9.5) Please explain

MM Million CAPEX: 2022: BRL 12.7 MM 2023: BRL 24.0 MM 2024 estimated: BRL 27.6 MM In 2023, Klabin increased water-related investments (CAPEX) by 89% due to improvements made to the water and wastewater treatment plants in Klabin units, such as Angatuba, Correia Pinto, Monte Alegre, Otacílio Costa, Goiana, and Horizonte, as well as the completion of the PUMA unit expansion (phase II). In next year, we expect to increase the CAPEX due improvements in Angatuba and Monte Alegre wastewater plants and investments in manufacturing technology upgrades focused on optimizing in water use. OPEX: 2022: BRL 170.4 MM 2023: BRL 82.9 MM 2024 estimated: BRL 74.6 MM In 2023, Klabin decreased its operating costs (OPEX) for water and wastewater by 51%, mainly influenced by the completion of the PUMA unit expansion (phase II) in mid-2023. In next year, we expect to decrease the OPEX due to changes in strategic planning and operations of the Packaging Business.
[Fixed row]

(5.10) Does your organization use an internal price on environmental externalities?

	Use of internal pricing of environmental externalities	Environmental externality priced
	Select from: ☑ Yes	*Select all that apply* ☑ Carbon ☑ Water

[Fixed row]

(5.10.1) Provide details of your organization's internal price on carbon.

Row 1

(5.10.1.1) Type of pricing scheme

Select from:
☑ Shadow price

(5.10.1.2) Objectives for implementing internal price

Select all that apply

☑ Drive energy efficiency

☑ Drive low-carbon investment

☑ Identify and seize low-carbon opportunities

☑ Navigate regulations

☑ Stress test investments

(5.10.1.3) Factors considered when determining the price

Select all that apply

☑ Alignment with the price of a carbon tax

☑ Alignment with the price of allowances under an Emissions Trading Scheme

(5.10.1.4) Calculation methodology and assumptions made in determining the price

We simulate that emissions from stationary sources (of our industrial units with annual emissions more higher than 200,000 tonneCO2e) are regulated and needs to pay a carbon tax or allowance (BRL 40/tonneCO2e). In this case, the Klabin units apply the carbon pricing for the Monte Alegre and PUMA units, both located in the state of Parana.

(5.10.1.5) Scopes covered

Select all that apply

☑ Scope 1

☑ Scope 2

(5.10.1.6) Pricing approach used – spatial variance

Select from:

☑ Uniform

(5.10.1.8) Pricing approach used – temporal variance

Select from:

☑ Static

(5.10.1.10) Minimum actual price used (currency per metric ton CO2e)

40

(5.10.1.11) Maximum actual price used (currency per metric ton CO2e)

40

(5.10.1.12) Business decision-making processes the internal price is applied to

Select all that apply

☑ Capital expenditure

☑ Operations

☑ Product and R&D

☑ Risk management

☑ Opportunity management

(5.10.1.13) Internal price is mandatory within business decision-making processes

Select from:

☑ Yes, for all decision-making processes

(5.10.1.14) % total emissions in the reporting year in selected scopes this internal price covers

100

(5.10.1.15) Pricing approach is monitored and evaluated to achieve objectives

Select from:

☑ Yes

(5.10.1.16) Details of how the pricing approach is monitored and evaluated to achieve your objectives

We simulate that emissions from stationary sources (of our industrial units with annual emissions more higher than 200,000 tonneCO2e) are regulated and needs to pay a carbon tax or allowance (BRL 40/tonneCO2e). In this case, the Klabin units apply the carbon pricing for the Monte Alegre and PUMA units, both located in the

state of Parana. Due the possible impacts of the carbon regulation, for example carbon tax or ETS, Klabin use a shadow price to understand the financial impact on the business revenue and EBITDA. We simulate that emissions from stationary sources (of our industrial units with annual emissions 200,000 tonCO2e) are regulated. We conducted 'sensitivity analysis' based on: average carbon tax in Latin America – USD 7.0 and considering the PMR study from 2016. The carbon price is converted to BRL. Our stationary emissions (578,437 tCO2e) X carbon tax or allowance (BRL 40.00) BRL 23,137,480. Less than 1% of the 2022 Adjusted Ebitda (R 7,931 millions).

Row 2

(5.10.1.1) Type of pricing scheme

Select from:

☑ Implicit price

(5.10.1.2) Objectives for implementing internal price

Select all that apply

☑ Navigate regulations

☑ Drive energy efficiency

☑ Stress test investments

☑ Drive low-carbon investment

☑ Conduct cost-benefit analysis

☑ Identify and seize low-carbon opportunities

☑ Incentivize consideration of climate-related issues in decision making

☑ Incentivize consideration of climate-related issues in risk assessment

(5.10.1.3) Factors considered when determining the price

Select all that apply

☑ Alignment with the price of a carbon tax

☑ Alignment with the price of allowances under an Emissions Trading Scheme

(5.10.1.4) Calculation methodology and assumptions made in determining the price

The Marginal Abatement Cost Curve (MACC) contributes to understand better the cost-effective emission abatement of the company, contributing to identify and prioritize the emission reduction measures. The MACC permits an easy-to-read visualization of various mitigation options or measures organized by a single, understandable metric: economic cost of emissions abatement. It is possible to assess/compare the (i) cost of regulation x (ii) the cost of investing in low carbon technology – BRL/tCO2 both. The MACC presents the marginal cost of carbon, which facilitates the company in decisions such as investing in low carbon technologies or paying the fee or allowance. Also, to serve as a basis for comparing the price of carbon when it will be regulated in Brazil. Klabin considers this

carbon price in the new project analysis with more than BRL 500 thousand CAPEX. In some cases, the cost of possible carbon regulation (in Brazil) will enable some investments. In additional, some technologies measures offer economic gains.

(5.10.1.5) Scopes covered

Select all that apply

☑ Scope 1

☑ Scope 2

☑ Scope 3, Category 4 - Upstream transportation and distribution

☑ Scope 3, Category 9 - Downstream transportation and distribution

(5.10.1.6) Pricing approach used – spatial variance

Select from:

☑ Uniform

(5.10.1.8) Pricing approach used – temporal variance

Select from:

☑ Static

(5.10.1.10) Minimum actual price used (currency per metric ton CO2e)

40

(5.10.1.11) Maximum actual price used (currency per metric ton CO2e)

40

(5.10.1.12) Business decision-making processes the internal price is applied to

Select all that apply

☑ Capital expenditure

☑ Operations

☑ Product and R&D

☑ Risk management

☑ Opportunity management

(5.10.1.13) Internal price is mandatory within business decision-making processes

Select from:

☑ Yes, for some decision-making processes, please specify **:**Projects above BRL 500 thousand

(5.10.1.14) % total emissions in the reporting year in selected scopes this internal price covers

100

(5.10.1.15) Pricing approach is monitored and evaluated to achieve objectives

Select from:

☑ Yes

(5.10.1.16) Details of how the pricing approach is monitored and evaluated to achieve your objectives

Provide a method of evaluating potential emissions reduction activities. Providing a visual comparison of the marginal abatement costs for different projects. The starting point is to estimate how much it costs to control carbon emissions. MACC allows the identification of where the main opportunities for mitigating emissions lie, thus considering the relationship between the cost per ton of carbon avoided and the amount of tons that a reduction measure, if undertaken, will be able to avoid. MACC provides individual access to measures, so that the costs and mitigation potential of emissions can be examined in isolation, and ranked according to their costs from lowest to highest, and thus assists in prioritizing projects.
[Add row]

(5.10.2) Provide details of your organization’s internal price on water.

Row 1

(5.10.2.1) Type of pricing scheme

Select from:

☑ Internal trading

(5.10.2.2) Objectives for implementing internal price

Select all that apply

☑ Drive water efficiency
☑ Conduct cost-benefit analysis
☑ Drive water-related investment
☑ Influence strategy and/or financial planning
☑ Setting and/or achieving of water-related policies and targets
☑ Incentivize consideration of water-related issues in decision making
☑ Incentivize consideration of water-related issues in risk assessment

(5.10.2.3) Factors beyond current market price are considered in the price

Select from:

☑ Yes

(5.10.2.4) Factors considered when determining the price

Select all that apply

☑ Costs of disposing water
☑ Costs of treating water

(5.10.2.5) Calculation methodology and assumptions made in determining the price

Currently, just some Klabin's units pay to water withdraw, consumption and/or discharge in fresh surface water (e.g. Angatuba, Jundiai-DI, Jundiai-TP, Franco da Rocha, Paulinia, Suzano, and Piracicaba unit) as a legal obliged. Due to this, Klabin adopt an internal price in its units. Klabin incurs costs for treating water in its Water Treatment Plants and Effluent Treatment Plants across its units. In 2023, all Klabin units used 119,368 megaliters of treated water at a cost of BRL 40,150,781.48. Regarding effluent treatment, all Klabin units discharged 103,510 megaliters at a cost of BRL 42,768,193.11. Therefore, for each cubic meter of water withdrawn and discharged as treated, the units paid an average of BRL 0.34 per cubic meter for water treatment and BRL 0.41 per cubic meter for wastewater treatment. The total cost (sum of water and wastewater treatment) is BRL 0.75 per cubic meter, which is the internal price used by Klabin's units. Any opportunities to reduce water withdrawal and/or water discharge consider this internal price in their cost-benefit analysis. The use of an internal water price at Klabin aims to drive water-related investments and improve water efficiency in its operations, as well as incentivize the consideration of water-related issues in risk assessments and decision-making.

(5.10.2.6) Stages of the value chain covered

Select all that apply

☑ Direct operations

(5.10.2.7) Pricing approach used – spatial variance

Select from:

☑ Uniform

(5.10.2.9) Pricing approach used – temporal variance

Select from:

☑ Evolutionary

(5.10.2.10) Indicate how you expect the price to change over time

The internal price of water at Klabin is updated yearly because the cost of water and wastewater treatment varies each year. Considering this variation, as well as the inclusion of price which units pay for the water withdrawal, consumption, and/or discharge into fresh surface water as a legal obliged, Klabin expects a 10% increase in its internal water price next year. Currently, Klabin also is developing a study to evaluate the impacts and dependencies related to water, based on nature solutions, aiming to improve its business decision-making processes and expand the scope to its value chain. The result of this study will be a new water pricing model in the coming years.

(5.10.2.11) Minimum actual price used (currency per cubic meter)

0.75

(5.10.2.12) Maximum actual price used (currency per cubic meter)

0.75

(5.10.2.13) Business decision-making processes the internal water price is applied to

Select all that apply

☑ Operations

☑ Risk management

☑ Opportunity management

(5.10.2.14) Internal price is mandatory within business decision-making processes

Select from:

☑ Yes, for all decision-making processes

(5.10.2.15) Pricing approach is monitored and evaluated to achieve objectives

Select from:

☑ Yes

(5.10.2.16) Details of how the pricing approach is monitored and evaluated to achieve your objectives

To set its internal water pricing, Klabin uses the costs associated with treating water in its Water Treatment Plants and Effluent Treatment Plants across its units. This price is updated annually to reflect changes in the cost of water and wastewater treatment. Before updating, Klabin compares its internal water price to national and international water tariffs, benchmarks from other organizations, and payments for water withdrawal, consumption, and/or discharge in fresh surface water in units located in watersheds with such charges. This annual comparison aims to analyze trends in water pricing. The internal pricing of water is applied in risk and opportunities management of Klabin units, being includes in water actions accompanied by the Water Management Working Group. Klabin uses internal water pricing to reinforce its commitment to reducing water usage across all operations. This internal price is considered in the cost-benefit analysis of any opportunities to reduce water withdrawal and/or discharge. The goal of Klabin's internal water pricing is to promote water-related investments, enhance water efficiency in operations, and encourage the consideration of water-related issues in risk assessments and decision-making, thereby influencing the company's strategy and financial planning. [Add row]

(5.11) Do you engage with your value chain on environmental issues?

	Engaging with this stakeholder on environmental issues	Environmental issues covered
Suppliers	*Select from:* ☑ Yes	*Select all that apply* ☑ Climate change ☑ Forests ☑ Water

	Engaging with this stakeholder on environmental issues	Environmental issues covered
Smallholders	*Select from:* ☑ Yes	*Select all that apply*
Customers	*Select from:* ☑ Yes	*Select all that apply* ☑ Climate change ☑ Forests ☑ Water
Investors and shareholders	*Select from:* ☑ Yes	*Select all that apply* ☑ Climate change ☑ Water
Other value chain stakeholders	*Select from:* ☑ Yes	*Select all that apply* ☑ Forests ☑ Water

[Fixed row]

(5.11.1) Does your organization assess and classify suppliers according to their dependencies and/or impacts on the environment?

Climate change

(5.11.1.1) Assessment of supplier dependencies and/or impacts on the environment

Select from:

☑ Yes, we assess the dependencies and/or impacts of our suppliers

(5.11.1.2) Criteria for assessing supplier dependencies and/or impacts on the environment

Select all that apply

☑ Contribution to supplier-related Scope 3 emissions

(5.11.1.3) % Tier 1 suppliers assessed

Select from:

☑ 1-25%

(5.11.1.4) Define a threshold for classifying suppliers as having substantive dependencies and/or impacts on the environment

Klabin has already assessed more than 90% of its relevant suppliers in terms of emissions that are included in its scope 3, representing 24% of the company's critical suppliers. The evaluations are carried out using the EcoVadis platform and also assess the level of maturity of the suppliers' carbon management.

(5.11.1.5) % Tier 1 suppliers meeting the thresholds for substantive dependencies and/or impacts on the environment

Select from:

☑ 1-25%

(5.11.1.6) Number of Tier 1 suppliers meeting the thresholds for substantive dependencies and/or impacts on the environment

94

Forests

(5.11.1.1) Assessment of supplier dependencies and/or impacts on the environment

Select from:

☑ Yes, we assess the dependencies and/or impacts of our suppliers

(5.11.1.2) Criteria for assessing supplier dependencies and/or impacts on the environment

Select all that apply

☑ Dependence on ecosystem services/environmental assets

☑ Impact on deforestation or conversion of other natural ecosystems

(5.11.1.3) % Tier 1 suppliers assessed

Select from:
☑ 100%

(5.11.1.4) Define a threshold for classifying suppliers as having substantive dependencies and/or impacts on the environment

All of Klabin's wood suppliers impact the environment in selected criteria. And they all meeting the thresholds for substantive dependencies and/or impacts on the environment.

(5.11.1.5) % Tier 1 suppliers meeting the thresholds for substantive dependencies and/or impacts on the environment

Select from:
☑ 100%

(5.11.1.6) Number of Tier 1 suppliers meeting the thresholds for substantive dependencies and/or impacts on the environment

156

Water

(5.11.1.1) Assessment of supplier dependencies and/or impacts on the environment

Select from:
☑ Yes, we assess the dependencies and/or impacts of our suppliers

(5.11.1.2) Criteria for assessing supplier dependencies and/or impacts on the environment

Select all that apply
☑ Basin/landscape condition

☑ Dependence on water
☑ Impact on water availability
☑ Impact on pollution levels

(5.11.1.3) % Tier 1 suppliers assessed

Select from:
☑ 1-25%

(5.11.1.4) Define a threshold for classifying suppliers as having substantive dependencies and/or impacts on the environment

Considering basin conditions, we use a threshold criterion if the supplier is in an area with a water stress score of 20% or more according to the WRI Aqueduct tool. The current threshold for assessing supplier impacts on water dependence, pollution and availability is based on EcoVadis score which uses environmental and water management indicators. Suppliers are ranked according to their responses to these questions to classify their potential impact.

(5.11.1.5) % Tier 1 suppliers meeting the thresholds for substantive dependencies and/or impacts on the environment

Select from:
☑ 1-25%

(5.11.1.6) Number of Tier 1 suppliers meeting the thresholds for substantive dependencies and/or impacts on the environment

59
[Fixed row]

(5.11.2) Does your organization prioritize which suppliers to engage with on environmental issues?

Climate change

(5.11.2.1) Supplier engagement prioritization on this environmental issue

Select from:

☑ Yes, we prioritize which suppliers to engage with on this environmental issue

(5.11.2.2) Criteria informing which suppliers are prioritized for engagement on this environmental issue

Select all that apply

☑ In line with the criteria used to classify suppliers as having substantive dependencies and/or impacts relating to climate change

☑ Material sourcing

☑ Product lifecycle

(5.11.2.4) Please explain

In order to prioritize the 94 relevant suppliers in terms of emissions, a prioritization was carried out based on the carbon footprint studies of Klabin's products. The contribution analysis is based on the Carbon Footprint study (Product Life Cycle Accounting and Reporting Standard - GHG Protocol), i.e. it considers all products purchased or acquired (goods and services) from activities directly related to the products produced by the company. Based on this study, the suppliers of the company's most intense products in absolute scope 3 emissions were selected, arriving at 62 input suppliers and 32 transporters.

Forests

(5.11.2.1) Supplier engagement prioritization on this environmental issue

Select from:

☑ Yes, we prioritize which suppliers to engage with on this environmental issue

(5.11.2.2) Criteria informing which suppliers are prioritized for engagement on this environmental issue

Select all that apply

☑ In line with the criteria used to classify suppliers as having substantive dependencies and/or impacts relating to forests

(5.11.2.4) Please explain

Klabin is committed to 100% coverage of Chains of Custody and controlled wood/due diligence system to ensure the legal and responsible wood sources. These certifications are internationally recognized in the forest business, including as a performance evaluation tool. They attests no conversion of natural habitats after 1994; no deforestation or forest degradation; no land clearance by burning or clearcutting; preservation and monitoring of High Conservation Value Areas; among others forest environmental and social related issues. More than 70% of the total raw material (timber) used in the process refers to FSC Forest Management

Certification. Klabin has a documented due diligence system (DDS) for raw materials supplied without FSC declarations. It allows to be used as controlled raw material. All wood suppliers are included in the DDS. At least once a year, Klabin performs internal audits and update DDS to ensure the system is being applied correctly. A national risk analysis is used in the FSC System for Controlled Wood evaluations with a robust methodology defined by FSC.

Water

(5.11.2.1) Supplier engagement prioritization on this environmental issue

Select from:

☑ Yes, we prioritize which suppliers to engage with on this environmental issue

(5.11.2.2) Criteria informing which suppliers are prioritized for engagement on this environmental issue

Select all that apply

☑ In line with the criteria used to classify suppliers as having substantive dependencies and/or impacts relating to water

☑ Material sourcing

☑ Procurement spend

☑ Vulnerability of suppliers

(5.11.2.4) Please explain

Suppliers are prioritized for engagement on water issues after a socio-environmental evaluation of critical suppliers. The criteria defining a critical supplier include revenue value for Klabin (spend), representativeness in the business units (Forestry, Pulp and Paper, and Packaging), and recurrence greater than six times per year. We assess the impact of critical suppliers on water issues using their overall EcoVadis system score, generated after a socio-environmental self-assessment. Suppliers are ranked based on their answers, with scores classified as follows: 0 to 20: high risk; 21 to 35: medium risk; 36 to 55: engaged; 56 to 75: advanced; Above 75: reference. Suppliers with an EcoVadis score under 35 (medium risk or lower) are prioritized for engagement. Additionally, considering basin conditions and significant dependencies and impacts related to water, we use a threshold criterion if the supplier is in an area with a water stress score of 20% or more according to the WRI Aqueduct tool to prioritized it for engagement.
[Fixed row]

(5.11.5) Do your suppliers have to meet environmental requirements as part of your organization’s purchasing process?

Climate change

(5.11.5.1) Suppliers have to meet specific environmental requirements related to this environmental issue as part of the purchasing process

Select from:

☑ Yes, environmental requirements related to this environmental issue are included in our supplier contracts

(5.11.5.2) Policy in place for addressing supplier non-compliance

Select from:

☑ Yes, we have a policy in place for addressing non-compliance

(5.11.5.3) Comment

During the purchasing process, suppliers must confirm their compliance with the general supply conditions and Klabin's Social and Environmental Responsibility of Suppliers Policy. This document outlines the socio-environmental requirements to be met during the execution of contracted services and includes a section on Consequence Management. This section details the procedures in cases of supplier non-compliance, stating that "any supplier that fails to comply with the provisions of this document will be subject to sanctions, as outlined in the Code of Conduct - Consequence Management section. These sanctions may include termination of the contract without compensation, claims for losses and damages, and other measures established in the agreement between the parties."

Forests

(5.11.5.1) Suppliers have to meet specific environmental requirements related to this environmental issue as part of the purchasing process

Select from:

☑ Yes, environmental requirements related to this environmental issue are included in our supplier contracts

(5.11.5.2) Policy in place for addressing supplier non-compliance

Select from:

☑ Yes, we have a policy in place for addressing non-compliance

(5.11.5.3) Comment

During the purchasing process, suppliers must confirm their adherence to the general supply conditions and Klabin's Social and Environmental Responsibility of Suppliers Policy. This document outlines the socio-environmental standards to be met during the execution of contracted services and includes a section on Consequence Management. This section specifies the procedures for handling supplier non-compliance, stating that "any supplier that fails to comply with the provisions of this document will be subject to sanctions, as outlined in the Code of Conduct - Consequence Management section. These sanctions may include contract termination without compensation, claims for losses and damages, and other measures established in the agreement between the parties." Klabin also is commited to 100% CoC certification. Wood suppliers must comply with Klabin principles. Wood Purchase Policy is complementary to Sustain. Policy. These two documents boost suppliers monitoring and do not allow Klabin negotiation with legally non-compliant suppliers (related to deforestation, i.e.).

Water

(5.11.5.1) Suppliers have to meet specific environmental requirements related to this environmental issue as part of the purchasing process

Select from:

☑ Yes, environmental requirements related to this environmental issue are included in our supplier contracts

(5.11.5.2) Policy in place for addressing supplier non-compliance

Select from:

☑ Yes, we have a policy in place for addressing non-compliance

(5.11.5.3) Comment

During the purchasing process, suppliers must confirm compliance with the general supply conditions in comply with Klabin's Social and Environmental Responsibility of Suppliers Policy. This document includes the socioenvironmental aspects to be met during the execution of the contracted services and the item Consequence Management. This item describe procedure in cases of suppliers' non-compliance, indicating that "any supplier that fails to comply with the provisions of this document will be subject to sanctions, in accordance with the provisions of its Code of Conduct - item Consequence Management, which may include termination of the contract without payment of compensation, claims for losses and damages, among other measures established in the agreement between the parties".
[Fixed row]

(5.11.6) Provide details of the environmental requirements that suppliers have to meet as part of your organization's purchasing process, and the compliance measures in place.

Climate change

(5.11.6.1) Environmental requirement

Select from:

☑ Setting a science-based emissions reduction target

(5.11.6.2) Mechanisms for monitoring compliance with this environmental requirement

Select all that apply

☑ Supplier scorecard or rating

☑ Supplier self-assessment

(5.11.6.3) % tier 1 suppliers by procurement spend required to comply with this environmental requirement

Select from:

☑ 100%

(5.11.6.4) % tier 1 suppliers by procurement spend in compliance with this environmental requirement

Select from:

☑ 100%

(5.11.6.7) % tier 1 supplier-related scope 3 emissions attributable to the suppliers required to comply with this environmental requirement

Select from:

☑ 76-99%

(5.11.6.8) % tier 1 supplier-related scope 3 emissions attributable to the suppliers in compliance with this environmental requirement

Select from:

☑ 76-99%

(5.11.6.9) Response to supplier non-compliance with this environmental requirement

Select from:

☑ Retain and engage

(5.11.6.10) % of non-compliant suppliers engaged

Select from:

☑ 1-25%

(5.11.6.11) Procedures to engage non-compliant suppliers

Select all that apply

☑ Assessing the efficacy and efforts of non-compliant supplier actions through consistent and quantified metrics

☑ Developing quantifiable, time-bound targets and milestones to bring suppliers back into compliance

☑ Providing information on appropriate actions that can be taken to address non-compliance

☑ Re-integrating suppliers back into upstream value chain based on the successful and verifiable completion of activities

(5.11.6.12) Comment

Of Klabin's entire supplier base, all suppliers relevant to this topic (94 in total) are included in the evaluation process. This is the supplier base related to climate change. During the reporting year, we conducted an engagement campaign to assess our suppliers on emissions management performance to mitigate climate change. The relevant suppliers were selected according to carbon footprint intensity, representing more than 90% of total emissions in each scope 3 category. Our suppliers are incentivized to participate the Ecovadis assessment through our supply contracts which request that they comply with the sustainability standards as defined in our Supplier Code. The engagement on emissions management for suppliers with Advanced and Leader performance goes through four stages (i) approve a science-based target with SBTi; (ii) develop a climate transition plan; (iii) disclosure of target progress annually; (iv) commit with a long-term (Net-Zero) target by 2050. In 2023, Klabin presented a Climate Commitment Letter for suppliers to sign. The aim is to guarantee commitment, engagement and joint work in the development of the company's climate journey. In total, 84% of suppliers with significant emissions signed the commitment.

Forests

(5.11.6.1) Environmental requirement

Select from:

☑ No deforestation or conversion of other natural ecosystems

(5.11.6.2) Mechanisms for monitoring compliance with this environmental requirement

Select all that apply

☑ Certification
☑ First-party verification
☑ On-site third-party audit
☑ Second-party verification
☑ Geospatial monitoring tool
☑ Off-site third-party audit

(5.11.6.3) % tier 1 suppliers by procurement spend required to comply with this environmental requirement

Select from:

☑ 100%

(5.11.6.4) % tier 1 suppliers by procurement spend in compliance with this environmental requirement

Select from:

☑ 100%

(5.11.6.5) % tier 1 suppliers with substantive environmental dependencies and/or impacts related to this environmental issue required to comply with this environmental requirement

Select from:

☑ 100%

(5.11.6.6) % tier 1 suppliers with substantive environmental dependencies and/or impacts related to this environmental issue that are in compliance with this environmental requirement

Select from:

☑ 100%

(5.11.6.9) Response to supplier non-compliance with this environmental requirement

Select from:

☑ Suspend and engage

(5.11.6.10) % of non-compliant suppliers engaged

Select from:

☑ Less than 1%

(5.11.6.11) Procedures to engage non-compliant suppliers

Select all that apply

☑ Assessing the efficacy and efforts of non-compliant supplier actions through consistent and quantified metrics

☑ Providing information on appropriate actions that can be taken to address non-compliance

☑ Re-integrating suppliers back into upstream value chain based on the successful and verifiable completion of activities

(5.11.6.12) Comment

Klabin is committed to 100% coverage of Chains of Custody and Controlled Wood(CW)/due diligence system (DDS) to ensure the legal and responsible wood sources. These certifications are internationally recognized in the forest business, including as a performance evaluation tool. They attest no conversion of natural habitats after 1994; no deforestation or forest degradation; no land clearance by burning or clearcutting; preservation and monitoring of High Conservation Value Areas; among others forest environmental and social related issues. Klabin has DDS for raw materials supplied without FSC declarations. It allows to be used as controlled raw material. Klabin audits all wood suppliers monthly. Audit checklist contemplates ESG issues. If a major severity non-conformity is detected, that is, if it hurts the Principles of the Timber Procurement Policy, the supplier will be suspended until adequacy; For minor non-conformities, those that do not violate the Wood Purchasing Policy, deadlines will be established for the adequacy and delivery of evidence of the actions taken by the supplier. If the non-conformity is not solved within the established period, the supplier's register will be suspended. All wood suppliers are included in the DDS. At least once a year, Klabin performs internal audits and update DDS to ensure the system is being applied correctly. A national risk analysis is used in the FSC System for CW evaluations with a robust methodology defined by FSC.

Water

(5.11.6.1) Environmental requirement

Select from:

☑ Regular environmental risk assessments (at least once annually)

(5.11.6.2) Mechanisms for monitoring compliance with this environmental requirement

Select all that apply

☑ Grievance mechanism/ Whistleblowing hotline
☑ Supplier scorecard or rating
☑ Supplier self-assessment

(5.11.6.3) % tier 1 suppliers by procurement spend required to comply with this environmental requirement

Select from:
☑ 76-99%

(5.11.6.4) % tier 1 suppliers by procurement spend in compliance with this environmental requirement

Select from:
☑ 100%

(5.11.6.5) % tier 1 suppliers with substantive environmental dependencies and/or impacts related to this environmental issue required to comply with this environmental requirement

Select from:
☑ 76-99%

(5.11.6.6) % tier 1 suppliers with substantive environmental dependencies and/or impacts related to this environmental issue that are in compliance with this environmental requirement

Select from:
☑ 100%

(5.11.6.9) Response to supplier non-compliance with this environmental requirement

Select from:
☑ Retain and engage

(5.11.6.10) % of non-compliant suppliers engaged

Select from:

☑ Less than 1%

(5.11.6.11) Procedures to engage non-compliant suppliers

Select all that apply

☑ Assessing the efficacy and efforts of non-compliant supplier actions through consistent and quantified metrics

☑ Developing quantifiable, time-bound targets and milestones to bring suppliers back into compliance

☑ Providing information on appropriate actions that can be taken to address non-compliance

☑ Re-integrating suppliers back into upstream value chain based on the successful and verifiable completion of activities

(5.11.6.12) Comment

Klabin's procurement department conducts an annual evaluation of all suppliers to ensure their adherence to the "Requirements Book." This document, which forms part of the contract between Klabin and the supplier, outlines specific water-related guidelines that must be met. Additionally, we use the WRI Aqueduct tool each year to identify suppliers located in water-stressed areas (those with a score of 20% or higher). We also use the EcoVadis platform to assess suppliers that have a significant impact, based on their self-assessment and scoring: 0-20 indicates high risk; 21-35 represents medium risk; 36-55 shows engagement; 56-75 signifies an advanced level; and above 75 is considered a benchmark. Moreover, Klabin tracks complaints related to supplier operations via a whistleblowing hotline. If a supplier receives an EcoVadis score below 35 or if any grievances or non-compliance issues are identified, Klabin's procurement team develops an action plan to support and engage the supplier. All suppliers must fully comply with these water-related requirements as a part of our company's procurement process, and currently, all suppliers are in compliance.
[Add row]

(5.11.7) Provide further details of your organization’s supplier engagement on environmental issues.

Climate change

(5.11.7.2) Action driven by supplier engagement

Select from:

☑ Emissions reduction

(5.11.7.3) Type and details of engagement

Financial incentives

☑ Include long-term contracts linked to environmental commitments

☑ Offer purchase guarantee linked to best agricultural practices

☑ Pay higher prices linked to best agricultural practices

☑ Provide financial incentives for certified products

Innovation and collaboration

☑ Collaborate with suppliers on innovations to reduce environmental impacts in products and services

(5.11.7.4) Upstream value chain coverage

Select all that apply

☑ Tier 1 suppliers

(5.11.7.5) % of tier 1 suppliers by procurement spend covered by engagement

Select from:

☑ 100%

(5.11.7.6) % of tier 1 supplier-related scope 3 emissions covered by engagement

Select from:

☑ 100%

(5.11.7.9) Describe the engagement and explain the effect of your engagement on the selected environmental action

Klabin's forestry units have a Controlled Wood Program in which wood suppliers are evaluated by a specialized forestry team, based on a specific methodology related to FSC chain of custody certification. These suppliers were selected because they represent an important part of our value chain and pose high risks in labor and environmental issues, which are critical to our business. In 2023, the volume of wood consumed in the industrial process was 14.010 million tons, 84% of which came from certified sources. Of this certified wood, 48% was sourced from Klabin's own forests, and 36% was acquired from suppliers. All our certified suppliers have been assessed on water-related issues through FSC certification management or controlled wood certification (Chain of Custody). Klabin measures the success by compliance percentage of all sustainability parameters on properties involved in the Program. This checklist has labor and human rights, environmental (water, solid wastes, emissions) and social aspects and it is used to measure of success of the engagement. In 2023, 558 audits were conducted, evaluating 156 controlled wood areas in the states of Paraná and Santa Catarina. If a major non-conformity is detected, one that violates the Principles of the Timber Procurement Policy, the

supplier will be suspended until compliance is achieved. For minor non-conformities, which do not violate the Wood Purchasing Policy, deadlines will be set for corrective actions, and the supplier must provide evidence of these actions. If the non-conformity is not resolved within the established timeframe, the supplier's registration will be suspended. After fulfilling the recommendations, the supplier is audited again and, in the event of no pending issues, the supply contract is resumed. All wood suppliers participate in training programs. At least once a year, Klabin updates the training sessions on how to mitigate impacts, supporting suppliers and ensuring the system is being applied correctly.

(5.11.7.10) Engagement is helping your tier 1 suppliers meet an environmental requirement related to this environmental issue

Select from:

☑ Yes, please specify the environmental requirement **:**Climate change

(5.11.7.11) Engagement is helping your tier 1 suppliers engage with their own suppliers on the selected action

Select from:

☑ No, because our tier 1 suppliers are producers, and have no suppliers of commodities

Forests

(5.11.7.1) Commodity

Select from:

☑ Timber products

(5.11.7.2) Action driven by supplier engagement

Select from:

☑ No deforestation and/or conversion of other natural ecosystems

(5.11.7.3) Type and details of engagement

Financial incentives

☑ Include long-term contracts linked to environmental commitments

☑ Offer purchase guarantee linked to best agricultural practices

☑ Pay higher prices linked to best agricultural practices

☑ Provide financial incentives for certified products

Innovation and collaboration

☑ Collaborate with suppliers on innovations to reduce environmental impacts in products and services

(5.11.7.4) Upstream value chain coverage

Select all that apply

☑ Tier 1 suppliers

(5.11.7.5) % of tier 1 suppliers by procurement spend covered by engagement

Select from:

☑ 100%

(5.11.7.7) % tier 1 suppliers with substantive impacts and/or dependencies related to this environmental issue covered by engagement

Select from:

☑ 100%

(5.11.7.9) Describe the engagement and explain the effect of your engagement on the selected environmental action

Since 2005, Klabin has helped landowners in Paraná (PR) and Santa Catarina (SC) states to use their lands sustainably by encouraging the recovery of native forest remnants; silviculture with responsible methods; and decrease the rural exodus, helping to improve regional development throght "Legal Forest" Program (conducted in partnership with the NGO Apremavi). The program has assisted more than 1,630 landowners. Properties adequacy to Forest Code (Legal/Social Forest programs) led Klabin to also invest in Supplier Forest Certification Program in the region of Campos Gerais-PR (2015) and Planalto Serrano- SC (2017), seeking to raise quality of forest management in value chain. Efforts through technical assistance and financial incentives to wood suppliers to achieve certification resulted in 240 FSC certified producers in 2023. The initiative is a part of company's goal to gradually change the standards from Controlled Wood to FSC Certified Wood. Non-certified suppliers receive training and are guided to adopt best practices in field. In 2020, Klabin also launched a new approach to ensure in a long-term supply: "Plant with Klabin". It is a program for small, medium and large rural producers. They are invited to participate in the company's forest expansion process through the cultivation of pine and eucalyptus. Producers receive free technical assistance and the guarantee of the minimum purchase price of the ton of wood, with the proviso to certify their properties, provided for in the contract. By 2020 to 2022, 115 partnerships were signed and 8.54 thousand hectares were negotiated in Paraná and Santa Catarina states. In 2023, 26 new partnerships were signed, and 1.7 k hectares negotiated. In 2023, Klabin purchased 6.6 MM tons of wood from third-party suppliers; 70% of it were Forest Management Certification raw materials. It is important to note that commodity is a 7 (eucalyptus) and 15 (pine) cutting cycle, therefore the

supply of wood by the same smallholder is not always continuous (yearly). For this reason, is fundamental the effort to encourage the certification of new suppliers. Another strategy is offer benefits in price per ton of certified wood. Every year, Klabin organizes meetings with certified and controlled suppliers with the aim to exchange experiences between them and create a bond of trust between them and the company. In 2023, 288 suppliers delivered wood to Klabin; 100% is engaged by any of Klabin initiatives.

(5.11.7.10) Engagement is helping your tier 1 suppliers meet an environmental requirement related to this environmental issue

Select from:

☑ Yes, please specify the environmental requirement **:**No deforestation or forest degradation; no land clearance by burning or clearcutting; preservation and monitoring of High Conservation Value Areas; among others forest environmental and social related iss

(5.11.7.11) Engagement is helping your tier 1 suppliers engage with their own suppliers on the selected action

Select from:

☑ No, because our tier 1 suppliers are producers, and have no suppliers of commodities

Water

(5.11.7.2) Action driven by supplier engagement

Select from:

☑ Provision of fully-functioning, safely managed WASH services to all employees

(5.11.7.3) Type and details of engagement

Capacity building

☑ Provide training, support and best practices on how to mitigate environmental impact

(5.11.7.4) Upstream value chain coverage

Select all that apply

☑ Tier 1 suppliers

(5.11.7.5) % of tier 1 suppliers by procurement spend covered by engagement

Select from:

☑ 100%

(5.11.7.7) % tier 1 suppliers with substantive impacts and/or dependencies related to this environmental issue covered by engagement

Select from:

☑ 100%

(5.11.7.9) Describe the engagement and explain the effect of your engagement on the selected environmental action

Klabin's forestry units have a Controlled Wood Program in which wood suppliers are evaluated by a specialized forestry team, based on a specific methodology related to FSC chain of custody certification. These suppliers were selected because they represent a significant part of our value chain and pose high risks in labor and environmental issues, which are critical to our business. Given their importance to our business, 100% of these suppliers are assessed. Klabin audits all wood suppliers monthly through Controlled Wood Program team. The audit checklist includes ESG issues and verifies if the supplier provides fully functioning, safely managed WASH services to all its employees. In 2023, the volume of wood consumed in the industrial process was 14.010 million tons, 84% of which came from certified sources. Of this certified wood, 48% was sourced from Klabin's own forests, and 36% was acquired from suppliers. All our certified suppliers have been assessed on water-related issues through FSC certification management or controlled wood certification (Chain of Custody). In 2023, 558 audits were conducted, evaluating 156 controlled wood areas in the states of Paraná and Santa Catarina. If a major non-conformity is detected, one that violates the Principles of the Timber Procurement Policy, the supplier will be suspended until compliance is achieved. For minor non-conformities, which do not violate the Wood Purchasing Policy, deadlines will be set for corrective actions, and the supplier must provide evidence of these actions. If the non-conformity is not resolved within the established timeframe, the supplier's registration will be suspended. After fulfilling the recommendations, the supplier is audited again and, in the event of no pending issues, the supply contract is resumed. All wood suppliers participate in training programs. At least once a year, Klabin updates the training sessions on how to mitigate impacts, supporting suppliers and ensuring the system is being applied correctly. The criterion for measuring the success of wood supplier engagement regarding WASH services is 100% compliance, and currently, all wood suppliers are in compliance with this requirement. Provision of fully-functioning, safely managed WASH services to all wood supplier employees is critical due to its importance in environmental and labor matters defined by Klabin in its purchasing process.

(5.11.7.10) Engagement is helping your tier 1 suppliers meet an environmental requirement related to this environmental issue

Select from:

☑ Yes, please specify the environmental requirement **:**Regular environmental risk assessments (at least once annually)

(5.11.7.11) Engagement is helping your tier 1 suppliers engage with their own suppliers on the selected action

Select from:

☑ No, because our tier 1 suppliers are producers, and have no suppliers of commodities

[Add row]

(5.11.8) Provide details of any environmental smallholder engagement activity

Row 1

(5.11.8.1) Commodity

Select from:

☑ Timber products

(5.11.8.2) Type and details of smallholder engagement approach

Capacity building

☑ Disseminate technical materials

☑ Provide training, support and best practices on sustainable agriculture practices and nutrient management

☑ Support smallholders to adopt best practices which protect biodiversity

☑ Support smallholders to measure and address their exposure to environmental risk

Financial incentives

☑ Long-term contracts linked to no-deforestation or no-conversion commitments

☑ Provide financial incentives for certified products

(5.11.8.3) Number of smallholders engaged

288

(5.11.8.4) Effect of engagement and measures of success

Since 2005, Klabin has helped landowners in Paraná (PR) and Santa Catarina (SC) states to use their lands sustainably by encouraging the recovery of native forest remnants; silviculture with responsible methods; and decrease the rural exodus, helping to improve regional development throght “Legal Forest” Program (conducted

in partnership with the NGO Apremavi). Because of the success of this program, there was an opportunity to expand engagement beyond forest commodity. In 2015, "Social Forest" Program was launched (in partnership with the Apremavi and Brazilian Micro and Small Business Support Service-Sebrae) with the goal of strengthening economic, environmental and social conditions of small and mid-sized rural properties (e.g. olericulture). Both programs have assisted 2,101 landowners and have donated about 2 MM native seedlings for restoration (2005-2023). Properties adequacy to Forest Code (Legal/Social Forest programs) led Klabin to also invest in Supplier Forest Certification Program in the region of Campos Gerais-PR (2015) and Planalto Serrano- SC (2017), seeking to raise quality of forest management in value chain. Efforts through technical assistance and financial incentives to wood suppliers to achieve certification resulted in 240 FSC certified producers in 2023; about 107 thousand hectares certified. The initiative is a part of company's goal to gradually change the standards from Controlled Wood to FSC Certified Wood. In 2023, Klabin purchased 6.6 MM tons of wood from third-party suppliers; 70% of it were Forest Management Certification raw materials. And, the others 288 suppliers delivered wood to Klabin (controlled wood), 100% is engaged by any of Klabin initiatives. It is important to note that commodity is a 7 (eucalyptus) and 15 (pine) cutting cycle, therefore the supply of wood by the same smallholder is not always continuous (yearly). For this reason, is fundamental the effort to encourage the certification of new suppliers. Another strategy is offer benefits in price per ton of certified wood, if certificated until the date of harvesting. In 2023, this benefit was around 15% over the price of non-certified wood. Every year, Klabin organizes a meeting with producers certified by the program with the aim to exchange experiences between them and create a bond of trust between them and the company.
[Add row]

(5.11.9) Provide details of any environmental engagement activity with other stakeholders in the value chain.

Climate change

(5.11.9.1) Type of stakeholder

Select from:
☑ Customers

(5.11.9.2) Type and details of engagement

Education/Information sharing
☑ Educate and work with stakeholders on understanding and measuring exposure to environmental risks

Innovation and collaboration
☑ Align your organization's goals to support customers' targets and ambitions
☑ Collaborate with stakeholders on innovations to reduce environmental impacts in products and services

(5.11.9.3) % of stakeholder type engaged

Select from:

☑ 100%

(5.11.9.4) % stakeholder-associated scope 3 emissions

Select from:

☑ 100%

(5.11.9.5) Rationale for engaging these stakeholders and scope of engagement

Klabin shares information with all its customers regarding information related to the organization's atmospheric emissions and certifications. There are some specific customers where Klabin periodically responds to information on air emissions, sustainability and the environment. It is important to mention that over the years more customers are requesting the supply engagment questionnaire in the CDP. This demonstrates the company's commitment to stakeholder engagement and transparency in information sharing. In addition, for all customers (and for this reason it is considered 100%), Klabin publicly announces its results and actions related to climate change. Some of the shared documents are: Public record of atmospheric emissions, disclosure of results on the Klabin website, Corporate Sustainability Index Report (ISE), Klabin Sustainability Report, Dow Jones Report, among others.

(5.11.9.6) Effect of engagement and measures of success

Klabin's customers are one of the stakeholder groups which have most driven and challenged the Company on its path to a low carbon economy. This is reinforced by Klabin's Policy of Stakeholder Engagement, which states that the Company should seek to meet the needs of its customers, considering their growing demand for gains in innovation and sustainability of its products. The theme Customers and Products is increasingly linked to innovation and sustainability and is considered one of Klabin's Objectives for Sustainable Development (KODS). In 2020, the company established a goal of having 10 benchmarking cases of circular economy in partnership with customers by 2030, this goal is part of Klabin's Agenda 2030 and the KODS. Klabin is sharing its Sustainability performance with 124 customers through EcoVadis platform.

Forests

(5.11.9.1) Type of stakeholder

Select from:

☑ Other value chain stakeholder, please specify **:**Wood suppliers

(5.11.9.2) Type and details of engagement

Education/Information sharing

☑ Share information about your products and relevant certification schemes

(5.11.9.3) % of stakeholder type engaged

Select from:

☑ 100%

(5.11.9.5) Rationale for engaging these stakeholders and scope of engagement

Klabin is FSC certified since 1998. Nowadays, is able to supply about 50% of raw material used for process; considering owned and partnership sources, such as SPVs – Special Purpose Vehicles (Klabin has the preferential right to purchase the wood produced; among other typical rights granted to controlling shareholders of a company of this type). Klabin is committed to 100% coverage of FSC chains of custody and controlled wood/due diligence system to ensure the legal, social and environmental responsible wood sources. To ensure a long-term supply it is interesting for the company the transition of suppliers from Controlled Wood to FSC Certificated. Therefore, Klabin actively works to help the smallholders to achieve the certification through a partnership with a third-party company that helps smallholders with technical approach. The certifications are accomplished in groups and Klabin offers a bonus in the wood purchase value, what makes interesting for the company by purchasing a reliable source raw material and for the smallholders that gain value in their product. The encouragement to wood suppliers to get certification led to the result of 240 farmers with official recognition by FSC; about 107 thousand ha certified in 2023. The number has increased 15 times from the start figure, which is a positive result. In 2020, Klabin also launched a new approach to contribute to long-term supply: "Plant with Klabin" Program. It is a program for small, medium and large rural producers. They are invited to participate in the company's forest expansion process through the cultivation of pine and eucalyptus. Producers receive free technical assistance and the guarantee of the minimum purchase price of the ton of wood, with the proviso to certify their properties, provided for in the contract. In 2023, 26 new partnerships were signed, and 1.7 k hectares negotiated.

(5.11.9.6) Effect of engagement and measures of success

Klabin's 2030 target is to have 100% of its wood consumption from certified sources. FSC is a credible forest certification scheme and widely used in forest sector, and recognized by Klabin's stakeholders as a standard of sustainable management. The target was set in 2019, but it is important to mention that the action plan to turn the target achievement possible has started in 2014 with the Forest Supplier Certification Program. In 2023, Klabin purchased 6.6 MM tons of wood from third-party suppliers; 70% of it were Forest Management Certification raw materials. The target is to exponential increase 4-5% per year the consumption of certified wood (ton). The goal is to reach 79% in 2025 and 100% in 2030.

Water

(5.11.9.1) Type of stakeholder

Select from:

☑ Customers

(5.11.9.2) Type and details of engagement

Education/Information sharing

☑ Share information about your products and relevant certification schemes

(5.11.9.3) % of stakeholder type engaged

Select from:

☑ 100%

(5.11.9.5) Rationale for engaging these stakeholders and scope of engagement

Klabin's customers are relevant stakeholder because they are the main group which promotes and challenges the company towards a sustainable economy. This is increased by Klabin's Stakeholder Engagement Policy, which establishes that the Company must meet its customer's needs, considering their growing demands for innovation and sustainability of their products. The theme "Customers and Products" is increasingly related to innovation and sustainability, and it is considered a Klabin Goals for Sustainable Development (KODS). To meet these demands, Klabin develops Life Cycle Analysis studies for its products, which include calculation of the water footprint, and shares this information with its main customers. In addition, we also share information about certifications such as FSC (FSC-C022516), Forest Stewardship Council, and CERFLOR (recognized by PEFC). These certifications attest that the main raw material used in the company's production process, wood (95% of the total used), undergoes rigorous verification of compliance with certification standards for forest management and chain of custody, in order to guarantee the reliability and sustainability of our supply chain, including assessment about water-related issues.

(5.11.9.6) Effect of engagement and measures of success

Klabin conducts annual satisfaction or perception surveys specific to each of its businesses aims to identify strengths and opportunities for improvement in products, processes and operations. Quality, safety, qualification, technical support and sustainability indicators (including life cycle analysis) are part of these surveys. For example, Pulp and Paper survey, answered by customers who represented 43% of total volume sold in 2023, evaluated Klabin with an excellent score (4.4 out of 5 total points). As result of challenges related to water footprint, from 2018 to 2023 Klabin reduced 29.8% in its specific water consumption (2018 the result was 4.42 m3/tones and 2023 the resulted was 3.10 m3/tones). Specific water consumption (S) is the difference between the volume of water withdrawn (W) and the discharge (D), divided by the total production (P) (S (W – D) / P). This continuous engagement contributes to improve water security in regions where Klabin has operations and to improve available water to other stakeholders in these regions.
[Add row]

(5.12) Indicate any mutually beneficial environmental initiatives you could collaborate on with specific CDP Supply Chain members.

Row 1

(5.12.1) Requesting member

Select from:

(5.12.2) Environmental issues the initiative relates to

Select all that apply

☑ Forests

(5.12.3) Commodities the initiative relates to

Select all that apply

☑ Timber products

(5.12.4) Initiative category and type

Certification

☑ Increase coverage of commodity certified

(5.12.5) Details of initiative

Klabin is FSC certified since 1998. Nowadays, is able to supply about 50% of raw material used for process; considering owned and partnership sources, such as SPVs – Special Purpose Vehicles (Klabin has the preferential right to purchase the wood produced; among other typical rights granted to controlling shareholders of a company of this type). Klabin is committed to 100% coverage of FSC chains of custody and controlled wood/due diligence system to ensure the legal, social and environmental responsible wood sources. To ensure a long-term supply it is interesting for the company the transition of suppliers from Controlled Wood to FSC Certificated. Therefore, Klabin actively works to help the smallholders to achieve the certification through a partnership with a third-party company that helps smallholders with technical approach. The certifications are accomplished in groups and Klabin offers a bonus in the wood purchase value, what makes interesting for the company by purchasing a reliable source raw material and for the smallholders that gain value in their product. The encouragement to wood suppliers to get certification led to the result of 240 farmers with official recognition by FSC; about 107 thousand ha certified in 2023. The number has increased 15 times from the

start figure, which is a positive result. In 2020, Klabin also launched a new approach to contribute to long-term supply: "Plant with Klabin" Program. It is a program for small, medium and large rural producers. They are invited to participate in the company's forest expansion process through the cultivation of pine and eucalyptus. Producers receive free technical assistance and the guarantee of the minimum purchase price of the ton of wood, with the proviso to certify their properties, provided for in the contract. In 2023, 26 new partnerships were signed, and 1.7 k hectares negotiated.

(5.12.6) Expected benefits

Select all that apply

☑ Increase in use of certified materials

(5.12.7) Estimated timeframe for realization of benefits

Select from:

☑ > 5 years

(5.12.8) Are you able to estimate the lifetime CO2e and/or water savings of this initiative?

Select from:

☑ No

(5.12.11) Please explain

Klabin's 2030 target is to have 100% of its wood consumption from certified sources. FSC is a credible forest certification scheme and widely used in forest sector, and recognized by Klabin's stakeholders as a standard of sustainable management. The target was set in 2019, but it is important to mention that the action plan to turn the target achievement possible has started in 2014 with the Forest Supplier Certification Program. In 2023, Klabin purchased 6.6 MM tons of wood from third-party suppliers; 70% of it were Forest Management Certification raw materials. The target is to exponential increase 4-5% per year the consumption of certified wood (ton). The goal is to reach 79% in 2025 and 100% in 2030.

Row 2

(5.12.1) Requesting member

Select from:

(5.12.2) Environmental issues the initiative relates to

Select all that apply

☑ Forests

(5.12.3) Commodities the initiative relates to

Select all that apply

☑ Timber products

(5.12.4) Initiative category and type

Certification

☑ Increase coverage of commodity certified

(5.12.5) Details of initiative

Klabin is FSC certified since 1998. Nowadays, is able to supply about 50% of raw material used for process; considering owned and partnership sources, such as SPVs – Special Purpose Vehicles (Klabin has the preferential right to purchase the wood produced; among other typical rights granted to controlling shareholders of a company of this type). Klabin is committed to 100% coverage of FSC chains of custody and controlled wood/due diligence system to ensure the legal, social and environmental responsible wood sources. To ensure a long-term supply it is interesting for the company the transition of suppliers from Controlled Wood to FSC Certificated. Therefore, Klabin actively works to help the smallholders to achieve the certification through a partnership with a third-party company that helps smallholders with technical approach. The certifications are accomplished in groups and Klabin offers a bonus in the wood purchase value, what makes interesting for the company by purchasing a reliable source raw material and for the smallholders that gain value in their product. The encouragement to wood suppliers to get certification led to the result of 240 farmers with official recognition by FSC; about 107 thousand ha certified in 2023. The number has increased 15 times from the start figure, which is a positive result. In 2020, Klabin also launched a new approach to contribute to long-term supply: "Plant with Klabin" Program. It is a program for small, medium and large rural producers. They are invited to participate in the company's forest expansion process through the cultivation of pine and eucalyptus. Producers receive free technical assistance and the guarantee of the minimum purchase price of the ton of wood, with the proviso to certify their properties, provided for in the contract. In 2023, 26 new partnerships were signed, and 1.7 k hectares negotiated.

(5.12.6) Expected benefits

Select all that apply

☑ Increase in use of certified materials

(5.12.7) Estimated timeframe for realization of benefits

Select from:

☑ > 5 years

(5.12.8) Are you able to estimate the lifetime CO2e and/or water savings of this initiative?

Select from:

☑ No

(5.12.11) Please explain

In 2019, Klabin set a target to acquire 100% of the energy purchased by the company from renewable sources by 2030. In 2022 the company reached this goal and in 2023 the company maintained this commitment, through the purchase of 100% of the electricity consumed in its units coming from hydroelectric with the appropriate certificates proving the source, IRECS of the supplier, which reduce by 45,696.941 tCO2e in company scope 2.

Row 3

(5.12.1) Requesting member

Select from:

(5.12.2) Environmental issues the initiative relates to

Select all that apply

☑ Climate change

(5.12.4) Initiative category and type

Change to supplier operations

☑ Increase proportion of renewable energy purchased

(5.12.5) Details of initiative

Klabin reduces its own operational emissions and contributes to the reduction of its customers' emissions. The IREC Service is a global environmental energy attribute tracking system designed to facilitate reliable carbon accounting for Scope 2, consistent with various international carbon accounting standards.

(5.12.6) Expected benefits

Select all that apply

☑ Reduction of own operational emissions (own scope 1 & 2)

(5.12.7) Estimated timeframe for realization of benefits

Select from:

☑ 1-3 years

(5.12.8) Are you able to estimate the lifetime CO2e and/or water savings of this initiative?

Select from:

☑ Yes, lifetime CO2e savings only

(5.12.9) Estimated lifetime CO2e savings

45696.94

(5.12.11) Please explain

In 2019, Klabin set a target to acquire 100% of the energy purchased by the company from renewable sources by 2030. In 2022 the company reached this goal and in 2023 the company maintained this commitment, through the purchase of 100% of the electricity consumed in its units coming from hydroelectric with the appropriate certificates proving the source, IRECS of the supplier, which reduce by 45,696.941 tCO2e in company scope 2.

Row 4

(5.12.1) Requesting member

Select from:

(5.12.2) Environmental issues the initiative relates to

Select all that apply

☑ Climate change

(5.12.4) Initiative category and type

Change to supplier operations

☑ Increase proportion of renewable energy purchased

(5.12.5) Details of initiative

Klabin reduces its own operational emissions and contributes to the reduction of its customers' emissions. The IREC Service is a global environmental energy attribute tracking system designed to facilitate reliable carbon accounting for Scope 2, consistent with various international carbon accounting standards.

(5.12.6) Expected benefits

Select all that apply

☑ Reduction of own operational emissions (own scope 1 & 2)

(5.12.7) Estimated timeframe for realization of benefits

Select from:

☑ 1-3 years

(5.12.8) Are you able to estimate the lifetime CO2e and/or water savings of this initiative?

Select from:

☑ Yes, lifetime CO2e savings only

(5.12.9) Estimated lifetime CO2e savings

45696.94

(5.12.11) Please explain

In 2019, Klabin set a target to acquire 100% of the energy purchased by the company from renewable sources by 2030. In 2022 the company reached this goal and in 2023 the company maintained this commitment, through the purchase of 100% of the electricity consumed in its units coming from hydroelectric with the appropriate certificates proving the source, IRECS of the supplier, which reduce by 45,696.941 tCO2e in company scope 2.

Row 5

(5.12.1) Requesting member

Select from:

(5.12.2) Environmental issues the initiative relates to

Select all that apply

☑ Climate change

(5.12.4) Initiative category and type

Change to supplier operations

☑ Increase proportion of renewable energy purchased

(5.12.5) Details of initiative

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(5.12.6) Expected benefits

Select all that apply

☑ Reduction of own operational emissions (own scope 1 & 2)

(5.12.7) Estimated timeframe for realization of benefits

Select from:

☑ 1-3 years

(5.12.8) Are you able to estimate the lifetime CO2e and/or water savings of this initiative?

Select from:

☑ Yes, lifetime CO2e savings only

(5.12.9) Estimated lifetime CO2e savings

45696.94

(5.12.11) Please explain

In 2019, Klabin set a target to acquire 100% of the energy purchased by the company from renewable sources by 2030. In 2022 the company reached this goal and in 2023 the company maintained this commitment, through the purchase of 100% of the electricity consumed in its units coming from hydroelectric with the appropriate certificates proving the source, IRECS of the supplier, which reduce by 45,696.941 tCO2e in company scope 2.

Row 6

(5.12.1) Requesting member

Select from:

(5.12.2) Environmental issues the initiative relates to

Select all that apply

☑ Climate change

(5.12.4) Initiative category and type

Change to supplier operations

☑ Increase proportion of renewable energy purchased

(5.12.5) Details of initiative

Klabin reduces its own operational emissions and contributes to the reduction of its customers' emissions. The IREC Service is a global environmental energy attribute tracking system designed to facilitate reliable carbon accounting for Scope 2, consistent with various international carbon accounting standards.

(5.12.6) Expected benefits

Select all that apply

☑ Reduction of own operational emissions (own scope 1 & 2)

(5.12.7) Estimated timeframe for realization of benefits

Select from:

☑ 1-3 years

(5.12.8) Are you able to estimate the lifetime CO2e and/or water savings of this initiative?

Select from:

☑ Yes, lifetime CO2e savings only

(5.12.9) Estimated lifetime CO2e savings

45696.94

(5.12.11) Please explain

In 2019, Klabin set a target to acquire 100% of the energy purchased by the company from renewable sources by 2030. In 2022 the company reached this goal and in 2023 the company maintained this commitment, through the purchase of 100% of the electricity consumed in its units coming from hydroelectric with the appropriate certificates proving the source, IRECS of the supplier, which reduce by 45,696.941 tCO2e in company scope 2.

Row 7

(5.12.1) Requesting member

Select from:

(5.12.2) Environmental issues the initiative relates to

Select all that apply

☑ Climate change

(5.12.4) Initiative category and type

Change to supplier operations

☑ Increase proportion of renewable energy purchased

(5.12.5) Details of initiative

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(5.12.6) Expected benefits

Select all that apply

☑ Reduction of own operational emissions (own scope 1 & 2)

(5.12.7) Estimated timeframe for realization of benefits

Select from:

☑ 1-3 years

(5.12.8) Are you able to estimate the lifetime CO2e and/or water savings of this initiative?

Select from:

☑ Yes, lifetime CO2e savings only

(5.12.9) Estimated lifetime CO2e savings

45696.94

(5.12.11) Please explain

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Row 8

(5.12.1) Requesting member

Select from:

(5.12.2) Environmental issues the initiative relates to

Select all that apply

☑ Climate change

(5.12.4) Initiative category and type

Change to supplier operations

☑ Increase proportion of renewable energy purchased

(5.12.5) Details of initiative

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(5.12.6) Expected benefits

Select all that apply

☑ Reduction of own operational emissions (own scope 1 & 2)

(5.12.7) Estimated timeframe for realization of benefits

Select from:

☑ 1-3 years

(5.12.8) Are you able to estimate the lifetime CO2e and/or water savings of this initiative?

Select from:

☑ Yes, lifetime CO2e savings only

(5.12.9) Estimated lifetime CO2e savings

45696.94

(5.12.11) Please explain

In 2019, Klabin set a target to acquire 100% of the energy purchased by the company from renewable sources by 2030. In 2022 the company reached this goal and in 2023 the company maintained this commitment, through the purchase of 100% of the electricity consumed in its units coming from hydroelectric with the appropriate certificates proving the source, IRECS of the supplier, which reduce by 45,696.941 tCO2e in company scope 2.

Row 9

(5.12.1) Requesting member

Select from:

(5.12.2) Environmental issues the initiative relates to

Select all that apply

☑ Climate change

(5.12.4) Initiative category and type

Change to supplier operations

☑ Increase proportion of renewable energy purchased

(5.12.5) Details of initiative

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(5.12.6) Expected benefits

Select all that apply

☑ Reduction of own operational emissions (own scope 1 & 2)

(5.12.7) Estimated timeframe for realization of benefits

Select from:

☑ 1-3 years

(5.12.8) Are you able to estimate the lifetime CO2e and/or water savings of this initiative?

Select from:

☑ Yes, lifetime CO2e savings only

(5.12.9) Estimated lifetime CO2e savings

45696.94

(5.12.11) Please explain

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Row 10

(5.12.1) Requesting member

Select from:

(5.12.2) Environmental issues the initiative relates to

Select all that apply

☑ Climate change

(5.12.4) Initiative category and type

Change to supplier operations

☑ Increase proportion of renewable energy purchased

(5.12.5) Details of initiative

Klabin reduces its own operational emissions and contributes to the reduction of its customers' emissions. The IREC Service is a global environmental energy attribute tracking system designed to facilitate reliable carbon accounting for Scope 2, consistent with various international carbon accounting standards.

(5.12.6) Expected benefits

Select all that apply

☑ Reduction of own operational emissions (own scope 1 & 2)

(5.12.7) Estimated timeframe for realization of benefits

Select from:

☑ 1-3 years

(5.12.8) Are you able to estimate the lifetime CO2e and/or water savings of this initiative?

Select from:

☑ Yes, lifetime CO2e savings only

(5.12.9) Estimated lifetime CO2e savings

45696.94

(5.12.11) Please explain

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Row 11

(5.12.1) Requesting member

Select from:

(5.12.2) Environmental issues the initiative relates to

Select all that apply

☑ Climate change

(5.12.4) Initiative category and type

Change to supplier operations

☑ Increase proportion of renewable energy purchased

(5.12.5) Details of initiative

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(5.12.6) Expected benefits

Select all that apply

☑ Reduction of own operational emissions (own scope 1 & 2)

(5.12.7) Estimated timeframe for realization of benefits

Select from:

☑ 1-3 years

(5.12.8) Are you able to estimate the lifetime CO2e and/or water savings of this initiative?

Select from:

☑ Yes, lifetime CO2e savings only

(5.12.9) Estimated lifetime CO2e savings

45696.94

(5.12.11) Please explain

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Row 12

(5.12.1) Requesting member

Select from:

(5.12.2) Environmental issues the initiative relates to

Select all that apply

☑ Climate change

(5.12.4) Initiative category and type

Change to supplier operations

☑ Increase proportion of renewable energy purchased

(5.12.5) Details of initiative

Klabin reduces its own operational emissions and contributes to the reduction of its customers' emissions. The IREC Service is a global environmental energy attribute tracking system designed to facilitate reliable carbon accounting for Scope 2, consistent with various international carbon accounting standards.

(5.12.6) Expected benefits

Select all that apply

☑ Reduction of own operational emissions (own scope 1 & 2)

(5.12.7) Estimated timeframe for realization of benefits

Select from:

☑ 1-3 years

(5.12.8) Are you able to estimate the lifetime CO2e and/or water savings of this initiative?

Select from:

☑ Yes, lifetime CO2e savings only

(5.12.9) Estimated lifetime CO2e savings

45696.94

(5.12.11) Please explain

In 2019, Klabin set a target to acquire 100% of the energy purchased by the company from renewable sources by 2030. In 2022 the company reached this goal and in 2023 the company maintained this commitment, through the purchase of 100% of the electricity consumed in its units coming from hydroelectric with the appropriate certificates proving the source, IRECS of the supplier, which reduce by 45,696.941 tCO2e in company scope 2.

Row 13

(5.12.1) Requesting member

Select from:

(5.12.2) Environmental issues the initiative relates to

Select all that apply

☑ Climate change

(5.12.4) Initiative category and type

Change to supplier operations

☑ Increase proportion of renewable energy purchased

(5.12.5) Details of initiative

Klabin reduces its own operational emissions and contributes to the reduction of its customers' emissions. The IREC Service is a global environmental energy attribute tracking system designed to facilitate reliable carbon accounting for Scope 2, consistent with various international carbon accounting standards.

(5.12.6) Expected benefits

Select all that apply

☑ Reduction of own operational emissions (own scope 1 & 2)

(5.12.7) Estimated timeframe for realization of benefits

Select from:

☑ 1-3 years

(5.12.8) Are you able to estimate the lifetime CO2e and/or water savings of this initiative?

Select from:

☑ Yes, lifetime CO2e savings only

(5.12.9) Estimated lifetime CO2e savings

45696.94

(5.12.11) Please explain

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Row 14

(5.12.1) Requesting member

Select from:

(5.12.2) Environmental issues the initiative relates to

Select all that apply

☑ Climate change

(5.12.4) Initiative category and type

Change to supplier operations

☑ Increase proportion of renewable energy purchased

(5.12.5) Details of initiative

Klabin reduces its own operational emissions and contributes to the reduction of its customers' emissions. The IREC Service is a global environmental energy attribute tracking system designed to facilitate reliable carbon accounting for Scope 2, consistent with various international carbon accounting standards.

(5.12.6) Expected benefits

Select all that apply

☑ Reduction of own operational emissions (own scope 1 & 2)

(5.12.7) Estimated timeframe for realization of benefits

Select from:

☑ 1-3 years

(5.12.8) Are you able to estimate the lifetime CO2e and/or water savings of this initiative?

Select from:

☑ Yes, lifetime CO2e savings only

(5.12.9) Estimated lifetime CO2e savings

45696.94

(5.12.11) Please explain

In 2019, Klabin set a target to acquire 100% of the energy purchased by the company from renewable sources by 2030. In 2022 the company reached this goal and in 2023 the company maintained this commitment, through the purchase of 100% of the electricity consumed in its units coming from hydroelectric with the appropriate certificates proving the source, IRECS of the supplier, which reduce by 45,696.941 tCO2e in company scope 2.

Row 15

(5.12.1) Requesting member

Select from:

(5.12.2) Environmental issues the initiative relates to

Select all that apply

☑ Climate change

(5.12.4) Initiative category and type

Change to supplier operations

☑ Increase proportion of renewable energy purchased

(5.12.5) Details of initiative

Klabin reduces its own operational emissions and contributes to the reduction of its customers' emissions. The IREC Service is a global environmental energy attribute tracking system designed to facilitate reliable carbon accounting for Scope 2, consistent with various international carbon accounting standards.

(5.12.6) Expected benefits

Select all that apply

☑ Reduction of own operational emissions (own scope 1 & 2)

(5.12.7) Estimated timeframe for realization of benefits

Select from:

☑ 1-3 years

(5.12.8) Are you able to estimate the lifetime CO2e and/or water savings of this initiative?

Select from:

☑ Yes, lifetime CO2e savings only

(5.12.9) Estimated lifetime CO2e savings

45696.94

(5.12.11) Please explain

In 2019, Klabin set a target to acquire 100% of the energy purchased by the company from renewable sources by 2030. In 2022 the company reached this goal and in 2023 the company maintained this commitment, through the purchase of 100% of the electricity consumed in its units coming from hydroelectric with the appropriate certificates proving the source, IRECS of the supplier, which reduce by 45,696.941 tCO2e in company scope 2.

Row 16

(5.12.1) Requesting member

Select from:

(5.12.2) Environmental issues the initiative relates to

Select all that apply

☑ Water

(5.12.4) Initiative category and type

Promote collective action

☑ Invite customer to collaborate with other users in their river basins to reduce impact

(5.12.5) Details of initiative

In water stressed areas is possible engagement the municipal government in use of available specific financial public resources to water issues improvement to develop local actions.

(5.12.6) Expected benefits

Select all that apply

☑ Improved resource use and efficiency

☑ Improved water quality

(5.12.7) Estimated timeframe for realization of benefits

Select from:

☑ 1-3 years

(5.12.8) Are you able to estimate the lifetime CO2e and/or water savings of this initiative?

Select from:

☑ No

(5.12.11) Please explain

Collaborating to influence local government to improve water-related issues may result in improved water availability and quality in a basin where there are operates. This could lead to reduced water treatment costs at a facility where there are manufacture products for the Philip Morris International, therefore leading to a lower price per unit and other environmental benefits in the basin.

Row 17

(5.12.1) Requesting member

Select from:

(5.12.2) Environmental issues the initiative relates to

Select all that apply

☑ Water

(5.12.4) Initiative category and type

Promote collective action

☑ Invite customer to collaborate with other users in their river basins to reduce impact

(5.12.5) Details of initiative

In water stressed areas is possible engagement the municipal government in use of available specific financial public resources to water issues improvement to develop local actions.

(5.12.6) Expected benefits

Select all that apply

☑ Improved resource use and efficiency

☑ Improved water quality

(5.12.7) Estimated timeframe for realization of benefits

Select from:

☑ 1-3 years

(5.12.8) Are you able to estimate the lifetime CO2e and/or water savings of this initiative?

Select from:

☑ No

(5.12.11) Please explain

Collaborating to influence local government to improve water-related issues may result in improved water availability and quality in a basin where there are operates. This could lead to reduced water treatment costs at a facility where there are manufacture products for the L'Oréal, therefore leading to a lower price per unit and other environmental benefits in the basin.
[Add row]

(5.13) Has your organization already implemented any mutually beneficial environmental initiatives due to CDP Supply Chain member engagement?

	Environmental initiatives implemented due to CDP Supply Chain member engagement	Primary reason for not implementing environmental initiatives	Explain why your organization has not implemented any environmental initiatives
	Select from: ☑ No, but we plan to within the next two years	*Select from:* ☑ Other, please specify :Klabin uses other strategic to engagement its supply chain.	*No comments.*

[Fixed row]

C6. Environmental Performance - Consolidation Approach

(6.1) Provide details on your chosen consolidation approach for the calculation of environmental performance data.

Climate change

(6.1.1) Consolidation approach used

Select from:

☑ Operational control

(6.1.2) Provide the rationale for the choice of consolidation approach

The operational control is used to consolidation of environmental performance data because Klabin has full authority to introduce and implement its operating policies at its operation. Klabin uses the same consolidation approach for reporting climate, water and forest-related data due to alignment with TCFD (Task Force on Climate-Related Financial Disclosures) recommendations.

Forests

(6.1.1) Consolidation approach used

Select from:

☑ Operational control

(6.1.2) Provide the rationale for the choice of consolidation approach

The operational control is used to consolidation of environmental performance data because Klabin has full authority to introduce and implement its operating policies at its operation. Klabin uses the same consolidation approach for reporting climate, water and forest-related data due to alignment with TCFD (Task Force on Climate-Related Financial Disclosures) recommendations.

Water

(6.1.1) Consolidation approach used

Select from:

☑ Operational control

(6.1.2) Provide the rationale for the choice of consolidation approach

The operational control is used to consolidation of environmental performance data because Klabin has full authority to introduce and implement its operating policies at its operation. Klabin uses the same consolidation approach for reporting climate, water and forest-related data due to alignment with TCFD (Task Force on Climate-Related Financial Disclosures) recommendations.

Plastics

(6.1.1) Consolidation approach used

Select from:

☑ Operational control

(6.1.2) Provide the rationale for the choice of consolidation approach

Operational control is used for the consolidation of plastics use data. Klabin uses internal monitoring through different sources of data from the company's areas, which feed into a PowerBi.

Biodiversity

(6.1.1) Consolidation approach used

Select from:

☑ Operational control

(6.1.2) Provide the rationale for the choice of consolidation approach

Operational control is used for the consolidation of biodiversity data. Klabin uses internal monitoring through different sources of data, which feed into a biodiversity database. From 2024, Klabin will use the same consolidation approach for reporting climate, biodiversity, water, forest-related data due to alignment with TNFD (Task Force on nature-Related Financial Disclosures) recommendations and following the LIFE methodology.
[Fixed row]

C7. Environmental performance - Climate Change

(7.1) Is this your first year of reporting emissions data to CDP?

Select from:
☑ No

(7.1.1) Has your organization undergone any structural changes in the reporting year, or are any previous structural changes being accounted for in this disclosure of emissions data?

	Has there been a structural change?
	Select all that apply ☑ No

[Fixed row]

(7.1.2) Has your emissions accounting methodology, boundary, and/or reporting year definition changed in the reporting year?

	Change(s) in methodology, boundary, and/or reporting year definition?
	Select all that apply ☑ No

[Fixed row]

(7.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

Select all that apply

☑ Brazil GHG Protocol Programme

☑ The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

☑ The Greenhouse Gas Protocol: Corporate Value Chain (Scope 3) Standard

(7.3) Describe your organization's approach to reporting Scope 2 emissions.

(7.3.1) Scope 2, location-based

Select from:

☑ We are reporting a Scope 2, location-based figure

(7.3.2) Scope 2, market-based

Select from:

☑ We are reporting a Scope 2, market-based figure

(7.3.3) Comment

Klabin has been calculating scope 2 emissions based on location since 2003. However, from 2017, Klabin started calculating scope 2 emissions based on both approaches (location- and market-based). From 2019, Klabin considered the market-based approach as the main methodology for measuring indirect emissions (scope 2), unlike previous years, which prioritized the location-based approach. In 2023, Klabin purchased electricity from renewable sources through IRECS issued by AES, which meant that the company achieved 100% purchase of renewable energy and a consequent reduction in Scope 2 emissions.
[Fixed row]

(7.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1, Scope 2 or Scope 3 emissions that are within your selected reporting boundary which are not included in your disclosure?

Select from:

☑ No

(7.5) Provide your base year and base year emissions.

Scope 1

(7.5.1) Base year end

12/31/2004

(7.5.2) Base year emissions (metric tons CO2e)

995985.0

(7.5.3) Methodological details

All greenhouse gas emissions of the company (scopes 1, 2, and 3) are reported based on the Brazilian GHG Protocol methodology and verified by a third party. Scope 1 emissions are 100% reported in the company's inventory based on the consumption performed by the company throughout the year. This information is accounted for through the SAP system, ensuring the accuracy and traceability of the data. In this way, the emission factors are calculated based on actual consumption. From the data collected in this system, the information is entered into the Brazilian GHG Protocol greenhouse gas inventory calculation tool and 100% verified by an independent third party.

Scope 2 (location-based)

(7.5.1) Base year end

12/31/2004

(7.5.2) Base year emissions (metric tons CO2e)

19195.0

(7.5.3) Methodological details

All greenhouse gas emissions of the company (scopes 1, 2, and 3) are reported based on the Brazilian GHG Protocol methodology and verified by a third party. Scope 2 emissions are reported in the company's inventory based on the consumption performed by the company throughout the year. This information is accounted for through the SAP system, ensuring the accuracy and traceability of the data. In this way, the emission factors are calculated based on actual consumption.

Scope 2 (market-based)

(7.5.1) Base year end

12/31/2017

(7.5.2) Base year emissions (metric tons CO2e)

43644.22

(7.5.3) Methodological details

On Indirect GHG emissions from energy acquisition - Scope 2, in 2017 Klabin began to record these emissions through the Market-based Approach. In this approach Klabin quantifies GHG emissions of scope 2 using the specific emission factor associated with each source of electricity generation that Klabin has chosen to acquire.

Scope 3 category 1: Purchased goods and services

(7.5.1) Base year end

12/31/2022

(7.5.2) Base year emissions (metric tons CO2e)

710355.2

(7.5.3) Methodological details

To account for the inputs representing 90% of emissions, a prioritization was carried out based on Klabin's product carbon footprint studies. The contribution analysis is based on the Carbon Footprint study (Product Life Cycle Accounting and Reporting Standard - GHG Protocol) and considers all purchased or acquired products (goods and services) from activities directly related to the products produced by the company. To calculate emissions, we use primary data on the quantities and volumes of inputs and chemicals purchased by Klabin in the inventoried year through the SAP tool, which ensures data traceability. Additionally, we use secondary data from the emission factors for each material included in the inventory from the Ecoinvent database. For the wood emission factor, all consumption, and activities necessary for soil preparation and maintenance, as well as the forest harvesting process (seedling cultivation, use of fertilizers and soil amendments, fuel

consumption, input production, and transportation), are considered. Calculation rationale: volume of the input purchased by Klabin multiplied by the corresponding emission factor of the input. Example: Volume of calcium carbonate purchased: 56,385,006 kg Ecoinvent emission factor (transport): 1.605 kgCO2e/kg Calculation: (56,385,006 kg x 1.605 kgCO2e/kg)/1000 Total emissions: 90,499.993 tCO2e

Scope 3 category 2: Capital goods

(7.5.1) Base year end

12/31/2022

(7.5.2) Base year emissions (metric tons CO2e)

0.0

(7.5.3) Methodological details

Based on a study conducted in 2022 for evaluating the expansion of scope 3 and accounting for each category, carried out with a specialized consultancy, a relevance matrix was used to determine scope 3 criteria. This included the guiding principles of the GHG Protocol (relevance, consistency, transparency, completeness, and accuracy) and the impact on strategic objectives (internal monitoring, stakeholders, responsibility and proactivity, public emission reporting, reduction opportunities, eco-labeling, and voluntary emission reporting programs) across 100% of Klabin's businesses. The work performed, as well as the results demonstrated by the CDP study (which considers 50 companies in the pulp and paper sector), showed that the category is not relevant in terms of CO2 emissions for the company. Example: Spend with supplier: USD 166,506,730.72. Emission factor: 0.0000136 t/USD Calculation: USD 166,506,730.72 x 0.0000136 t/USD Total emissions: 2,261.39 tCO2e

Scope 3 category 3: Fuel-and-energy-related activities (not included in Scope 1 or 2)

(7.5.1) Base year end

12/31/2022

(7.5.2) Base year emissions (metric tons CO2e)

88607.43

(7.5.3) Methodological details

In this category, we account for the emissions from the extraction, production, and transportation of the fuels consumed at the units. The emission calculation is made based on the emission factor and the density of each fuel and the quantity purchased. We use primary data on the quantity of fuel purchased by Klabin units in the inventoried year through the SAP tool, which ensures data traceability, and secondary data on emission factors for each type of fuel included in the inventory from the Ecoinvent database. Calculation rationale: volume of fuel purchased by Klabin multiplied by the corresponding emission factor of the fuel. Example: Volume of LPG purchased: 14,864,206.26 kg Ecoinvent emission factor (transport): 0.5676 kgCO2e/kg Calculation: (14,864,206.26 kg x 0.5676 kgCO2e/kg)/1000 Total emissions: 8,436.18 tCO2e

Scope 3 category 4: Upstream transportation and distribution

(7.5.1) Base year end

12/31/2022

(7.5.2) Base year emissions (metric tons CO2e)

74194.67

(7.5.3) Methodological details

In this category, we account for the emissions from the road transport of wood to Klabin units and the road and rail transport between Klabin units. The calculation is based on the fuel consumption, or the cargo transported and the distance traveled between origin and destination, following the guidelines of the Brazilian GHG Protocol methodology. The transport of raw materials and inputs is already accounted for in category 1. We use primary data on the origin and destination of products, type of vehicle, type of fuel, volume transported, and distance traveled, as well as secondary data on average vehicle consumption (km/L) (based on the average consumption of trucks) and emission factors from the GHG Protocol tool. Calculation rationale: "Transport and distribution (Upstream)" tab of the GHG Protocol tool. Example: Volume of Diesel consumption at a unit: 154,373.13 liters Volume entered in the "Transport and distribution (Upstream)" tab of the GHG Protocol tool Total emissions: 361.43 tCO2e

Scope 3 category 5: Waste generated in operations

(7.5.1) Base year end

12/31/2022

(7.5.2) Base year emissions (metric tons CO2e)

587.47

(7.5.3) Methodological details

Methane emissions from landfills are calculated and converted into CO2 equivalent using the GHG Protocol tool. We use primary data on the volume of waste generated at the units and secondary data on the climatic characteristics of the waste disposal site based on INMET (2018), which is used in the GHG Protocol tool. Calculation rationale: "Solid Waste from Operations" tab of the GHG Protocol tool. Example: Volume of waste landfilled at a manufacturing unit: 158.61 tons Volume entered in the "Solid Waste from Operations" tab of the GHG Protocol tool Total emissions: 2.1 tCO2e

Scope 3 category 6: Business travel

(7.5.1) Base year end

12/31/2022

(7.5.2) Base year emissions (metric tons CO2e)

1897.06

(7.5.3) Methodological details

Included in the inventory, although it has lower relevance in terms of emissions. It includes emissions from business flights. We use primary data on the total number of flight segments traveled by Klabin employees from the travel agency report and secondary data on emission factors from the DEFRA methodology (2022) in the GHG Protocol tool. It is important to note that the data is verified annually by a third party, ensuring data traceability and validation. Calculation rationale: "Business Travel" tab of the GHG Protocol tool. Example: Total mileage of medium-distance air travel at a manufacturing unit: 74,852.12 km Volume entered in the "Business Travel" tab of the GHG Protocol tool. Total emissions: 8.21 tCO2e

Scope 3 category 7: Employee commuting

(7.5.1) Base year end

12/31/2022

(7.5.2) Base year emissions (metric tons CO2e)

15694.43

(7.5.3) Methodological details

To account for emissions, a sample survey was conducted, which involves identifying activities and their respective sources and statistically inferring total emissions through sampling. An electronic form was applied to survey the distance traveled by employees. Primary data on employee commuting were collected through a questionnaire. The information collected includes distance traveled, type of vehicle, and, if necessary, type of fuel. Finally, to calculate the emissions, we used secondary data on average vehicle consumption and emission factors based on the GHG Protocol methodology. Calculation rationale: "Employee Commuting" tab of the GHG Protocol tool. Example: Distance traveled: 9 km Type of vehicle: Flex-fuel car Type of fuel: Gasoline Working days in the year: 252 Information entered in the "Employee Commuting" tab of the GHG Protocol tool. Total emissions: 0.25 tCO2e

Scope 3 category 8: Upstream leased assets

(7.5.1) Base year end

12/31/2022

(7.5.2) Base year emissions (metric tons CO2e)

0.0

(7.5.3) Methodological details

Based on a study conducted in 2022 for evaluating the expansion of scope 3 and accounting for each category, carried out with a specialized consultancy, a relevance matrix was used to determine scope 3 criteria. This included the guiding principles of the GHG Protocol (relevance, consistency, transparency, completeness, and accuracy) and the impact on strategic objectives (internal monitoring, stakeholders, responsibility and proactivity, public emission reporting, reduction opportunities, eco-labeling, and voluntary emission reporting programs) across 100% of Klabin's businesses. The work performed, as well as the results demonstrated by the CDP study (which considers 50 companies in the pulp and paper sector), showed that the category is not relevant in terms of CO2 emissions for the company. Operations in leased areas (planted forest areas) are carried out by the company, with emissions included in Scopes 1 and 2.

Scope 3 category 9: Downstream transportation and distribution

(7.5.1) Base year end

12/31/2022

(7.5.2) Base year emissions (metric tons CO2e)

383603.83

(7.5.3) Methodological details

In this category, we account for emissions from road, rail, and maritime transport of products produced (paid by Klabin) from the units to customers or to ports in the case of exports. The calculation is based on fuel consumption or the transported load and the distance traveled between origin and destination. We use primary data from the SAP tool on the origin and destination of products, type of vehicle, type of fuel, volume transported, distance traveled, as well as secondary data on average vehicle consumption (km/L) (based on the average consumption of truck models used) and emission factors from the GHG Protocol tool. Calculation rationale: "Transport and Distribution (Downstream)" tab of the GHG Protocol tool. Example: Volume of Diesel consumption at a unit: 2,243,712.77 liters Volume entered in the "Transport and Distribution (Downstream)" tab of the GHG Protocol tool Total emissions: 5,253.0945 tCO2e

Scope 3 category 10: Processing of sold products

(7.5.1) Base year end

12/31/2022

(7.5.2) Base year emissions (metric tons CO2e)

2276239.53

(7.5.3) Methodological details

The emission factors consider scopes 1 and 2 for the sector responsible for processing the product sold by Klabin into a final product, excluding scope 3 to avoid double counting. The emission factors also include emissions from waste generated in the process of transforming the raw material sold by Klabin into a product. We use the exact volume of intermediate product sold by Klabin as primary data. Additionally, emission factors are used based on the type of processing of the products sold, extracted from the Ecoinvent database. Emissions from processing intermediate products sold by Klabin to customers are accounted for in this category. This does not apply to final products sold by Klabin, such as corrugated cardboard packaging and industrial bags. Calculation rationale: volume of intermediate product sold by Klabin multiplied by the corresponding emission factor for the product. Example: Volume of pulp sold for the production of a specific product in the external market: 280,972 tons Ecoinvent emission factor: 0.47 tCO2e/ton Calculation (280,972 tons x 0.47 tCO2e/ton) Total emissions: 130,699.88 tCO2e

Scope 3 category 11: Use of sold products

(7.5.1) Base year end

12/31/2022

(7.5.2) Base year emissions (metric tons CO2e)

0.0

(7.5.3) Methodological details

Not applicable. Klabin's products do not emit greenhouse gases during use by the end consumer.

Scope 3 category 12: End of life treatment of sold products

(7.5.1) Base year end

12/31/2022

(7.5.2) Base year emissions (metric tons CO2e)

286955.33

(7.5.3) Methodological details

The calculation is based on CO2 emission values from degraded waste and the quantity of product destined for landfills. Emissions from the disposal of intermediate and final products sold at the end of their useful life are included in this category. This category includes biogenic methane emissions within the emission factor used. We use primary data on volumes of products sold by Klabin and secondary data on recycling rates for European countries, extracted from the PEF initiative database (CFF_Default_Parameters_March2018). End-of-life disposal scenarios were extracted from Ecoinvent. The recycling rate for Brazil was extracted from the sectoral study conducted by Poyry in 2021. Calculation rationale: volume of final product sold by Klabin multiplied by the corresponding emission factor for the product. Example: Volume of final packaging sold in the external market: 1,298 tons Ecoinvent emission factor: 2.05 tCO2e/ton Recycling rate (PEF): 75% Calculation ((1-75%) x 1,298 tons x 2.05 tCO2e/ton) Total emissions: 665 tCO2e

Scope 3 category 13: Downstream leased assets

(7.5.1) Base year end

12/31/2022

(7.5.2) Base year emissions (metric tons CO2e)

0.0

(7.5.3) Methodological details

Not applicable.

Scope 3 category 14: Franchises

(7.5.1) Base year end

12/31/2022

(7.5.2) Base year emissions (metric tons CO2e)

0.0

(7.5.3) Methodological details

Not applicable. Klabin does not have franchises.

Scope 3 category 15: Investments

(7.5.1) Base year end

12/31/2022

(7.5.2) Base year emissions (metric tons CO2e)

0.0

(7.5.3) Methodological details

The emissions from Klabin's subsidiaries (controlled entities) are included in Klabin's scope 1 and scope 2 emissions.

Scope 3: Other (upstream)

(7.5.1) Base year end

12/31/2022

(7.5.2) Base year emissions (metric tons CO2e)

0.0

(7.5.3) Methodological details

There are no other relevant categories.

Scope 3: Other (downstream)

(7.5.1) Base year end

12/31/2022

(7.5.2) Base year emissions (metric tons CO2e)

0.0

(7.5.3) Methodological details

There are no other relevant categories
[Fixed row]

(7.6) What were your organization’s gross global Scope 1 emissions in metric tons CO2e?

Reporting year

(7.6.1) Gross global Scope 1 emissions (metric tons CO2e)

720824.03

(7.6.3) Methodological details

All greenhouse gas emissions of the company (scopes 1, 2, and 3) are reported based on the Brazilian GHG Protocol methodology and verified by a third party. Scope 1 emissions are 100% reported in the company’s inventory based on the consumption performed by the company throughout the year. This information is

accounted for through the SAP system, ensuring the accuracy and traceability of the data. In this way, the emission factors are calculated based on actual consumption. From the data collected in this system, the information is entered into the Brazilian GHG Protocol greenhouse gas inventory calculation tool and 100% verified by an independent third party. Example: Consumption of LPG in the restaurant of a manufacturing unit: 6.74 tons Volume entered in the "Stationary Combustion" tab of the GHG Protocol tool. Total emissions: 19.76 tCO2e
[Fixed row]

(7.7) What were your organization’s gross global Scope 2 emissions in metric tons CO2e?

Reporting year

(7.7.1) Gross global Scope 2, location-based emissions (metric tons CO2e)

50153.91

(7.7.2) Gross global Scope 2, market-based emissions (metric tons CO2e) (if applicable)

4456.97

(7.7.4) Methodological details

All greenhouse gas emissions of the company (scopes 1, 2, and 3) are reported based on the Brazilian GHG Protocol methodology and verified by a third party. Scope 2 emissions are reported in the company’s inventory based on the consumption performed by the company throughout the year. This information is accounted for through the SAP system, ensuring the accuracy and traceability of the data. In this way, the emission factors are calculated based on actual consumption. 100% of the electricity consumed by the company during the year, 1,179,759.996 MWh, is certified with IRECs from hydropower. From the energy data collected in this system, the information is entered into the Brazilian GHG Protocol greenhouse gas inventory calculation tool and 100% verified by an independent third party. This process is internalized within the company and is part of the contracts for the purchase/use of GRID energy.
[Fixed row]

(7.8) Account for your organization’s gross global Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

(7.8.1) Evaluation status

Select from:

☑ Relevant, calculated

(7.8.2) Emissions in reporting year (metric tons CO2e)

627412.657

(7.8.3) Emissions calculation methodology

Select all that apply

☑ Average data method

(7.8.4) Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

(7.8.5) Please explain

Klabin report the emissions for purchased goods and services referring to the chemical inputs used in paper production, the emission factors used are from the Ecoinvent database, adapted to the Brazilian reality.

Capital goods

(7.8.1) Evaluation status

Select from:

☑ Not relevant, explanation provided

(7.8.5) Please explain

Internal studies were carried out to define the Scope 3 categories, analyzing their impact on the inventory due to their application or not, as well as the restrictions and interferences that their inclusion would entail. The criteria evaluated were influence, risks, outsourcing, size and availability. In addition, guiding principles of the GHG Protocol were used, such as relevance, consistency, transparency, completeness and accuracy, also considering the impact on the company's strategic objectives. Through this analysis, a matrix related to each emitting source was built for the relevance score. With the categories mapped and their relevance established, a benchmark was made with the CDP study on the relevance of Scope 3 by sector, using data from the paper and forestry sector, EPS and SBTi. The result of this work identified 8 Scope 3 categories that should be included in the greenhouse gas inventory. We consider including categories that show more than 40% relevance in the final score. However, the capital goods category showed 33% relevance.

Fuel-and-energy-related activities (not included in Scope 1 or 2)

(7.8.1) Evaluation status

Select from:

☑ Relevant, calculated

(7.8.2) Emissions in reporting year (metric tons CO2e)

81821

(7.8.3) Emissions calculation methodology

Select all that apply

☑ Average data method

☑ Fuel-based method

(7.8.4) Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

(7.8.5) Please explain

Klabin report the emissions related to fuels that are not previously included in scope 1 and 2, these emissions refer to the transportation of fuel used at Klabin's gas stations, calculated through the distance between the refinery and Klabin's gas stations. This category is included in the scope expansion, the emission factors used are from the Ecoinvent database, adapted to the Brazilian reality. The greenhouse gas inventory calculation was based on the Brazilian GHG Protocol methodology and was verified by third party, attesting to the veracity of the data.

Upstream transportation and distribution

(7.8.1) Evaluation status

Select from:

☑ Relevant, calculated

(7.8.2) Emissions in reporting year (metric tons CO2e)

85848.61

(7.8.3) Emissions calculation methodology

Select all that apply

☑ Fuel-based method

(7.8.4) Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

(7.8.5) Please explain

Klabin calculates emissions from third-party fuel consumption, referring to the transportation of inputs and products, including maritime emissions related to cabotage of products between our units. The company has been studying alternatives to reduce fuel consumption in the products transportation, some initiatives are related to the substitution of fossil fuel for biofuels, besides the improvement in equipment efficiency. The greenhouse gas inventory calculation was based on the Brazilian GHG Protocol methodology and was verified by third party, attesting to the veracity of the data.

Waste generated in operations

(7.8.1) Evaluation status

Select from:

☑ Relevant, calculated

(7.8.2) Emissions in reporting year (metric tons CO2e)

239.01

(7.8.3) Emissions calculation methodology

Select all that apply

☑ Waste-type-specific method

(7.8.4) Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

(7.8.5) Please explain

This Scope 3 category includes emissions from the treatment and / or final disposal of solid waste arising from the operations of the organization during the year, carried out in facilities owned or controlled by third parties. We achieved 99.3% of reuse of solid waste in 2023. This category accounts for all future emissions (along the treatment and / or final disposal process) that result from the waste generated in the inventory year. The greenhouse gas inventory calculation was based on the Brazilian GHG Protocol methodology and was verified by third party, attesting to the veracity of the data.

Business travel

(7.8.1) Evaluation status

Select from:

☑ Relevant, calculated

(7.8.2) Emissions in reporting year (metric tons CO2e)

1897.27

(7.8.3) Emissions calculation methodology

Select all that apply

☑ Distance-based method

(7.8.4) Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

(7.8.5) Please explain

This category includes the calculation of emissions from the transportation of employees to activities related to the inventor's organization's business carried out on vehicles operated by or owned by third parties. The greenhouse gas inventory calculation was based on the Brazilian GHG Protocol methodology and was verified by third party, attesting to the veracity of the data.

Employee commuting

(7.8.1) Evaluation status

Select from:

☑ Relevant, calculated

(7.8.2) Emissions in reporting year (metric tons CO2e)

17436.16

(7.8.3) Emissions calculation methodology

Select all that apply

☑ Fuel-based method

☑ Distance-based method

(7.8.4) Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

(7.8.5) Please explain

This category includes the calculation of the emissions of the transport of employees in their movement between home and work, carried out in private vehicles or employees or public transportation. The greenhouse gas inventory calculation was based on the Brazilian GHG Protocol methodology and was verified by third party, attesting to the veracity of the data.

Upstream leased assets

(7.8.1) Evaluation status

Select from:

☑ Not relevant, explanation provided

(7.8.5) Please explain

Internal studies were carried out to define the Scope 3 categories, analyzing their impact on the inventory due to their application or not, as well as the restrictions and interferences that their inclusion would entail. The criteria evaluated were influence, risks, outsourcing, size and availability. In addition, guiding principles of the GHG Protocol were used, such as relevance, consistency, transparency, completeness and accuracy, also considering the impact on the company's strategic objectives. Through this analysis, a matrix related to each emitting source was built for the relevance score. With the categories mapped and their relevance established, a benchmark was made with the CDP study on the relevance of Scope 3 by sector, using data from the paper and forestry sector, EPS and SBTi. The result of this work identified 8 Scope 3 categories that should be included in the greenhouse gas inventory. We consider including categories that show more than 40% relevance in the final score. However, the Upstream leased assets category showed 38% relevance.

Downstream transportation and distribution

(7.8.1) Evaluation status

Select from:

☑ Relevant, calculated

(7.8.2) Emissions in reporting year (metric tons CO2e)

365897.634

(7.8.3) Emissions calculation methodology

Select all that apply

☑ Fuel-based method

☑ Distance-based method

(7.8.4) Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

(7.8.5) Please explain

Klabin calculates emissions from third-party fuel consumption, referring to the transportationof finished products, including maritime emissions. The company has been studying alternatives to reduce fuel consumption in the products transportation, some initiatives are related to the substitution of fossil fuel for biofuels, besides the improvement in equipment efficiency. The greenhouse gas inventory calculation was based on the Brazilian GHG Protocol methodology and was verified by third party, attesting to the veracity of the data.

Processing of sold products

(7.8.1) Evaluation status

Select from:

☑ Relevant, calculated

(7.8.2) Emissions in reporting year (metric tons CO2e)

1899436.87

(7.8.3) Emissions calculation methodology

Select all that apply

☑ Average data method

(7.8.4) Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

(7.8.5) Please explain

As of 2019, Klabin started to expand the scope of its Scope 3 in order to identify action points to reduce its emissions in the chain. The company has a chronogram for its expansion to be able to act more assertively with the chain to combat the climate crisis. For this category, emissions from Klabin's intermediate product customers was considered. The greenhouse gas inventory calculation was based on the Brazilian GHG Protocol methodology and was verified by third party, attesting to the veracity of the data.

Use of sold products

(7.8.1) Evaluation status

Select from:

☑ Not relevant, explanation provided

(7.8.5) Please explain

Emissions in this category are 0, our products do not emit during use.

End of life treatment of sold products

(7.8.1) Evaluation status

Select from:

☑ Relevant, calculated

(7.8.2) Emissions in reporting year (metric tons CO2e)

279816.19

(7.8.3) Emissions calculation methodology

Select all that apply

☑ Average data method

(7.8.4) Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

(7.8.5) Please explain

As of 2019, Klabin started to expand the scope of its Scope 3 in order to identify action points to reduce its emissions in the chain. The company has a chronogram for its expansion to be able to act more assertively with the chain to combat the climate crisis. For this category, emissions from Klabin's final product customers was considered.. The greenhouse gas inventory calculation was based on the Brazilian GHG Protocol methodology and was verified by third party, attesting to the veracity of the data.

Downstream leased assets

(7.8.1) Evaluation status

Select from:

☑ Not relevant, explanation provided

(7.8.5) Please explain

Internal studies were carried out to define the Scope 3 categories, analyzing their impact on the inventory due to their application or not, as well as the restrictions and interferences that their inclusion would entail. The criteria evaluated were influence, risks, outsourcing, size and availability. In addition, guiding principles of the GHG Protocol were used, such as relevance, consistency, transparency, completeness and accuracy, also considering the impact on the company's strategic objectives. Through this analysis, a matrix related to each emitting source was built for the relevance score. With the categories mapped and their relevance established, a benchmark was made with the CDP study on the relevance of Scope 3 by sector, using data from the paper and forestry sector, EPS and SBTi. The result of this work identified 8 Scope 3 categories that should be included in the greenhouse gas inventory. We consider including categories that show more than 40% relevance in the final score. However, the Downstream leased assets category showed 16% relevance.

Franchises

(7.8.1) Evaluation status

Select from:

☑ Not relevant, explanation provided

(7.8.5) Please explain

Internal studies were carried out to define the Scope 3 categories, analyzing their impact on the inventory due to their application or not, as well as the restrictions and interferences that their inclusion would entail. The criteria evaluated were influence, risks, outsourcing, size and availability. In addition, guiding principles of the GHG Protocol were used, such as relevance, consistency, transparency, completeness and accuracy, also considering the impact on the company's strategic objectives. Through this analysis, a matrix related to each emitting source was built for the relevance score. With the categories mapped and their relevance established, a benchmark was made with the CDP study on the relevance of Scope 3 by sector, using data from the paper and forestry sector, EPS and SBTi. The result of this work identified 8 Scope 3 categories that should be included in the greenhouse gas inventory. We consider including categories that show more than 40% relevance in the final score. However, the Franchises category showed 4% relevance.

Investments

(7.8.1) Evaluation status

Select from:

☑ Not relevant, explanation provided

(7.8.5) Please explain

Internal studies were carried out to define the Scope 3 categories, analyzing their impact on the inventory due to their application or not, as well as the restrictions and interferences that their inclusion would entail. The criteria evaluated were influence, risks, outsourcing, size and availability. In addition, guiding principles of the GHG Protocol were used, such as relevance, consistency, transparency, completeness and accuracy, also considering the impact on the company's strategic objectives. Through this analysis, a matrix related to each emitting source was built for the relevance score. With the categories mapped and their relevance established, a benchmark was made with the CDP study on the relevance of Scope 3 by sector, using data from the paper and forestry sector, EPS and SBTi. The result of this work identified 8 Scope 3 categories that should be included in the greenhouse gas inventory. We consider including categories that show more than 40% relevance in the final score. However, the Investments category showed 15% relevance.

Other (upstream)

(7.8.1) Evaluation status

Select from:

☑ Not relevant, explanation provided

(7.8.5) Please explain

Internal studies were carried out to define the Scope 3 categories, analyzing their impact on the inventory due to their application or not, as well as the restrictions and interferences that their inclusion would entail. The criteria evaluated were influence, risks, outsourcing, size and availability. In addition, guiding principles of the GHG Protocol were used, such as relevance, consistency, transparency, completeness and accuracy, also considering the impact on the company's strategic objectives. Through this analysis, a matrix related to each emitting source was built for the relevance score. With the categories mapped and their relevance established, a benchmark was made with the CDP study on the relevance of Scope 3 by sector, using data from the paper and forestry sector, EPS and SBTi. The result of this work identified 8 Scope 3 categories that should be included in the greenhouse gas inventory.

Other (downstream)

(7.8.1) Evaluation status

Select from:

☑ Not relevant, explanation provided

(7.8.5) Please explain

Internal studies were carried out to define the Scope 3 categories, analyzing their impact on the inventory due to their application or not, as well as the restrictions and interferences that their inclusion would entail. The criteria evaluated were influence, risks, outsourcing, size and availability. In addition, guiding principles of the GHG Protocol were used, such as relevance, consistency, transparency, completeness and accuracy, also considering the impact on the company's strategic objectives. Through this analysis, a matrix related to each emitting source was built for the relevance score. With the categories mapped and their relevance established, a

benchmark was made with the CDP study on the relevance of Scope 3 by sector, using data from the paper and forestry sector, EPS and SBTi. The result of this work identified 8 Scope 3 categories that should be included in the greenhouse gas inventory.
[Fixed row]

(7.9) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	*Select from:* ☑ Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	*Select from:* ☑ Third-party verification or assurance process in place
Scope 3	*Select from:* ☑ Third-party verification or assurance process in place

[Fixed row]

(7.9.1) Provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.

Row 1

(7.9.1.1) Verification or assurance cycle in place

Select from:
☑ Annual process

(7.9.1.2) Status in the current reporting year

Select from:

☑ Complete

(7.9.1.3) Type of verification or assurance

Select from:

☑ Limited assurance

(7.9.1.4) Attach the statement

367.088_24 Verification Statement - KLABIN.pdf

(7.9.1.5) Page/section reference

Scope 1 emissions are found on page 2, in the Total verified emissions (Operational Control approach) section, in the attached document. Verification Statement in accordance with the Brazilian GHG Protocol Program and ABNT NBR ISO 14064-3: 2007

(7.9.1.6) Relevant standard

Select from:

☑ ABNT NBR ISO 14064-3:2007 (Associação Brasileira de Normas Técnicas)

(7.9.1.7) Proportion of reported emissions verified (%)

100
[Add row]

(7.9.2) Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.

Row 1

(7.9.2.1) Scope 2 approach

Select from:

☑ Scope 2 location-based

(7.9.2.2) Verification or assurance cycle in place

Select from:

☑ Annual process

(7.9.2.3) Status in the current reporting year

Select from:

☑ Complete

(7.9.2.4) Type of verification or assurance

Select from:

☑ Limited assurance

(7.9.2.5) Attach the statement

367.088_24 Verification Statement - KLABIN.pdf

(7.9.2.6) Page/ section reference

Scope 2 location-based emissions are found on page 2, in the Total verified emissions (Operational Control approach) section, in the attached document. Verification Statement in accordance with the Brazilian GHG Protocol Program and ABNT NBR ISO 14064-3: 2007

(7.9.2.7) Relevant standard

Select from:

☑ ABNT NBR ISO 14064-3:2007 (Associação Brasileira de Normas Técnicas)

(7.9.2.8) Proportion of reported emissions verified (%)

100

Row 2

(7.9.2.1) Scope 2 approach

Select from:

☑ Scope 2 market-based

(7.9.2.2) Verification or assurance cycle in place

Select from:

☑ Annual process

(7.9.2.3) Status in the current reporting year

Select from:

☑ Complete

(7.9.2.4) Type of verification or assurance

Select from:

☑ Limited assurance

(7.9.2.5) Attach the statement

367.088_24 Verification Statement - KLABIN.pdf

(7.9.2.6) Page/ section reference

Scope 2 market-based emissions are found on page 2, in the Total verified emissions (Operational Control approach) section, in the attached document. Verification Statement in accordance with the Brazilian GHG Protocol Program and ABNT NBR ISO 14064-3: 2007

(7.9.2.7) Relevant standard

Select from:

☑ ABNT NBR ISO 14064-3:2007 (Associação Brasileira de Normas Técnicas)

(7.9.2.8) Proportion of reported emissions verified (%)

100
[Add row]

(7.9.3) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.

Row 1

(7.9.3.1) Scope 3 category

Select all that apply

- ☑ Scope 3: Business travel
- ☑ Scope 3: Employee commuting
- ☑ Scope 3: Processing of sold products
- ☑ Scope 3: Purchased goods and services
- ☑ Scope 3: Waste generated in operations
- ☑ Scope 3: End-of-life treatment of sold products
- ☑ Scope 3: Upstream transportation and distribution
- ☑ Scope 3: Downstream transportation and distribution
- ☑ Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2)

(7.9.3.2) Verification or assurance cycle in place

Select from:

☑ Annual process

(7.9.3.3) Status in the current reporting year

Select from:

☑ Complete

(7.9.3.4) Type of verification or assurance

Select from:

☑ Limited assurance

(7.9.3.5) Attach the statement

367.088_24 Verification Statement - KLABIN.pdf

(7.9.3.6) Page/section reference

Scope 3 emissions are found on page 2, in the Total verified emissions (Operational Control approach) section, in the attached document. Furthermore, on page 3, in the table "Scope 3 emissions disaggregated by category," there are Scope 3 emissions listed by category. Verification Statement in accordance with the Brazilian GHG Protocol Program and ABNT NBR ISO 14064-3: 2007

(7.9.3.7) Relevant standard

Select from:

☑ ABNT NBR ISO 14064-3:2007 (Associação Brasileira de Normas Técnicas)

(7.9.3.8) Proportion of reported emissions verified (%)

100
[Add row]

(7.10) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?

Select from:

☑ Decreased

(7.10.1) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.

Change in renewable energy consumption

(7.10.1.1) Change in emissions (metric tons CO2e)

10067.2

(7.10.1.2) Direction of change in emissions

Select from:

☑ Decreased

(7.10.1.3) Emissions value (percentage)

1.29

(7.10.1.4) Please explain calculation

*In 2023, the company saw a significant reduction in heavy oil consumption at the Puma and Correia Pinto units, due to the year-round biomass gasification operation at the Puma 2 project and the use of bio-oil, respectively. These initiatives replace the consumption of heavy oil in the units' lime kilns, reinforcing the company's commitment to seeking to replace the non-renewable fuels used in its operations. (10,067.20/778,959.51)*100 1.29%*

Other emissions reduction activities

(7.10.1.1) Change in emissions (metric tons CO2e)

59554.78

(7.10.1.2) Direction of change in emissions

Select from:

☑ Decreased

(7.10.1.3) Emissions value (percentage)

7.65

(7.10.1.4) Please explain calculation

*In 2023, there was a reduction in fuel oil consumption at the Monte Alegre unit and a reduction in natural gas consumption at the recycled paper units related to changes in the company's strategic planning in the year reported. (59,554.78/778,959.51)*100 7.65%*

Divestment

(7.10.1.1) Change in emissions (metric tons CO2e)

0

(7.10.1.2) Direction of change in emissions

Select from:

☑ No change

(7.10.1.3) Emissions value (percentage)

0

(7.10.1.4) Please explain calculation

The reductions of emissions due to the investments at the beginning of the Puma II project operation are related to the substitution of fuel oil by syngas, fuel derived from biomass gasification, this reduction is allocated in the category 'Change in renewable energy consumption' above.

Acquisitions

(7.10.1.1) Change in emissions (metric tons CO2e)

0

(7.10.1.2) Direction of change in emissions

Select from:

☑ No change

(7.10.1.3) Emissions value (percentage)

0

(7.10.1.4) Please explain calculation

There were no changes in emissions due acquisitions.

Mergers

(7.10.1.1) Change in emissions (metric tons CO2e)

0

(7.10.1.2) Direction of change in emissions

Select from:
☑ No change

(7.10.1.3) Emissions value (percentage)

0

(7.10.1.4) Please explain calculation

There were no changes in emissions due to mergers.

Change in output

(7.10.1.1) Change in emissions (metric tons CO2e)

0

(7.10.1.2) Direction of change in emissions

Select from:
☑ No change

(7.10.1.3) Emissions value (percentage)

0

(7.10.1.4) Please explain calculation

There were no changes in emissions due to change in output.

Change in methodology

(7.10.1.1) Change in emissions (metric tons CO2e)

0

(7.10.1.2) Direction of change in emissions

Select from:
☑ No change

(7.10.1.3) Emissions value (percentage)

0

(7.10.1.4) Please explain calculation

There were no changes in emissions due to change in methodology.

Change in boundary

(7.10.1.1) Change in emissions (metric tons CO2e)

0

(7.10.1.2) Direction of change in emissions

Select from:
☑ No change

(7.10.1.3) Emissions value (percentage)

0

(7.10.1.4) Please explain calculation

There were no changes in emissions due to change in boundary.

Change in physical operating conditions

(7.10.1.1) Change in emissions (metric tons CO2e)

0

(7.10.1.2) Direction of change in emissions

Select from:
☑ No change

(7.10.1.3) Emissions value (percentage)

0

(7.10.1.4) Please explain calculation

There were no changes in emissions due to change in physical operating conditions.

Unidentified

(7.10.1.1) Change in emissions (metric tons CO2e)

0

(7.10.1.2) Direction of change in emissions

Select from:
☑ No change

(7.10.1.3) Emissions value (percentage)

0

(7.10.1.4) Please explain calculation

There were no changes in emissions due to unidentified reasons.

Other

(7.10.1.1) Change in emissions (metric tons CO2e)

0

(7.10.1.2) Direction of change in emissions

Select from:
☑ No change

(7.10.1.3) Emissions value (percentage)

0

(7.10.1.4) Please explain calculation

There were no changes in emissions due to other conditions.
[Fixed row]

(7.10.2) Are your emissions performance calculations in 7.10 and 7.10.1 based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Select from:
☑ Market-based

(7.13) Is biogenic carbon pertaining to your direct operations relevant to your current CDP climate change disclosure?

Select from:

☑ Yes

(7.13.1) Account for biogenic carbon data pertaining to your direct operations and identify any exclusions.

CO2 emissions from land use management

(7.13.1.1) Emissions (metric tons CO2)

6810.5

(7.13.1.2) Methodology

Select all that apply

☑ Default emissions factors

(7.13.1.3) Please explain

The emissions in this category refer to the application of nitrogen compounds during the implementation of our forests in the states of Paraná, São Paulo, and Santa Catarina. The greenhouse gas inventory calculation was based on the Brazilian GHG Protocol methodology and was verified by third party, attesting to the veracity of the data.

CO2 removals from land use management

(7.13.1.1) Emissions (metric tons CO2)

12362501.14

(7.13.1.2) Methodology

Select all that apply

☑ Default emissions factors

(7.13.1.3) Please explain

Removal of 12,362,501.14 t CO2e (biogenic) referring to the planting of forests for the supply of wood. The greenhouse gas inventory calculation was based on the Brazilian GHG Protocol methodology and was verified by third party, attesting to the veracity of the data.

Sequestration during land use change

(7.13.1.1) Emissions (metric tons CO2)

293145

(7.13.1.2) Methodology

Select all that apply

☑ Default emissions factors

(7.13.1.3) Please explain

*The "Legal Forest" Program was launched in Santa Catarina in 2005; and in Paraná in 2008. Its development is uninterrupted. A joint venture between the Association for the Environment and Life's Preservation (Apremavi) and Klabin. The program aims to restore supplier's PPAs and LRs in accordance with Brazilian Forest Code. The majority of small farmers attended by the program participate in the company's Forest Partnership/"Plant with Klabin" Program. The essence is an encouragement to rural property planning, with adaptation to the laws in force, consequently promoting environmental education and conservation, using the concept of "Legal Ownership". Both programs combine income generation and the diversification of production activities to the restoration of Permanent Preservation Areas (APPs), in connection with watersheds, streams and rivers. Biodiversity is preserved through the maintenance of native areas, forming ecological corridors. Restoration monitoring is made six-monthly or more frequently by the program's technicians. During the 18 years of program (2005 – 2023) a total of 27,018 hectares of PPAs and LRs were demarcated to preservation, conservation and restoration. Using as base the value of 10.85 tCO2eq / ha calculated according to the CO2 sequestration of the native forests in relation to a total area that a Klabin has (Brazilian GHG Protocol Metodology used): 27,018 ha * 10.85 tCO2 / ha 293,145 tCO2eq. This amount of CO2 is also contemplated in the CO2 removal calculation for land use management.*

CO2 emissions from biofuel combustion (land machinery)

(7.13.1.1) Emissions (metric tons CO2)

28519.505

(7.13.1.2) Methodology

Select all that apply

☑ Default emissions factors

(7.13.1.3) Please explain

Emissions of 28,519.505 t CO2e (biogenic) for mobile combustion (transport / machinery). The greenhouse gas inventory calculation was based on the Brazilian GHG Protocol methodology and was verified by third party, attesting to the veracity of the data.

CO2 emissions from biofuel combustion (processing/manufacturing machinery)

(7.13.1.1) Emissions (metric tons CO2)

6464632.723

(7.13.1.2) Methodology

Select all that apply

☑ Default emissions factors

(7.13.1.3) Please explain

Emissions of 6,464,632.505 tCO2e (biogenic) relative to stationary combustion of biomass fuels (biodiesel, vegetable residues and Black Liquor). The greenhouse gas inventory calculation was based on the Brazilian GHG Protocol methodology and was verified by third party, attesting to the veracity of the data.

CO2 emissions from biofuel combustion (other)

(7.13.1.1) Emissions (metric tons CO2)

255282.95

(7.13.1.2) Methodology

Select all that apply

☑ Default emissions factors

(7.13.1.3) Please explain

Emissions of 9,477.55 t CO2e (biogenic) for Scope 3, refering to the combustion of biodiesel in upstream transportation and 10,991.55 tCO2e in downstream transportation. 234,813.842 t CO2e (biogenic) for Scope 2, these emissions refer to the purchase of thermal energy from biomass at the Angatuba and Piracicaba units. The greenhouse gas inventory calculation was based on the Brazilian GHG Protocol methodology and was verified by third party, attesting to the veracity of the data.
[Fixed row]

(7.14) Do you calculate greenhouse gas emissions for each agricultural commodity reported as significant to your business?

Timber products

(7.14.1) GHG emissions calculated for this commodity

Select from:
☑ Yes

(7.14.2) Reporting emissions by

Select from:
☑ Unit of production

(7.14.3) Emissions (metric tons CO2e)

0.00036

(7.14.4) Denominator: unit of production

Select from:
☑ Metric tons

(7.14.5) Change from last reporting year

Select from:
☑ Much Higher

(7.14.6) Please explain

Timber is the main raw material for Klabin's production process. The boundaries used for data collection are related to the company's own operations as a whole and forestry activities in the states of Parana, Santa Catarina, and Sao Paulo. For the calculations of the atmospheric emissions of this commodity, the stationary emissions (plant residues and black liquor) are considered as biomass and liquor for the boilers (GHG emissions equivalent to 74,252.92 tCO2e and 6,464,442.95 tCO2 biogenic in 2023) and in addition, the emissions of greenhouse gases are calculated for the agricultural emissions processes considering Forest Planting for wood supply (GHG emissions of 6,810.50 tCO2e in 2023). Thats a increase of 3% of CO2 biogenic emissions from timber when compared to 2022, related to the increased use of biomass fuels, like Syngas, this increase is positive, this increase is positive because it reduces our company's fossil CO2 emissions. T o Klabin, the description for ‘’comparison with previous reporting year” and “five-year forecast” thresholds: Deviation /- or equal 5% about the same; Deviation between /- 5-10% higher / lower; Deviation /- 10% much higher / lower. These calculations are performed annually using the methodology of the Brazilian GHG Protocol.
[Fixed row]

(7.15) Does your organization break down its Scope 1 emissions by greenhouse gas type?

Select from:
☑ Yes

(7.15.1) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used global warming potential (GWP).

Row 1

(7.15.1.1) Greenhouse gas

Select from:
☑ CO2

(7.15.1.2) Scope 1 emissions (metric tons of CO2e)

627816.82

(7.15.1.3) GWP Reference

Select from:
☑ IPCC Fifth Assessment Report (AR5 – 100 year)

Row 2

(7.15.1.1) Greenhouse gas

Select from:

☑ CH4

(7.15.1.2) Scope 1 emissions (metric tons of CO2e)

26318.57

(7.15.1.3) GWP Reference

Select from:

☑ IPCC Fifth Assessment Report (AR5 – 100 year)

Row 3

(7.15.1.1) Greenhouse gas

Select from:

☑ N2O

(7.15.1.2) Scope 1 emissions (metric tons of CO2e)

59734.44

(7.15.1.3) GWP Reference

Select from:

☑ IPCC Fifth Assessment Report (AR5 – 100 year)

Row 4

(7.15.1.1) Greenhouse gas

Select from:
☑ HFCs

(7.15.1.2) Scope 1 emissions (metric tons of CO2e)

6954.2

(7.15.1.3) GWP Reference

Select from:
☑ IPCC Fifth Assessment Report (AR5 – 100 year)
[Add row]

(7.16) Break down your total gross global Scope 1 and 2 emissions by country/area.

	Scope 1 emissions (metric tons CO2e)	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Argentina	*587.238*	*66.553*	*0*
Austria	*0*	*0*	*0*
Brazil	*720236.796*	*50087.355*	*4456.967*

[Fixed row]

(7.17) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.

Select all that apply
☑ By facility

(7.17.2) Break down your total gross global Scope 1 emissions by business facility.

Row 1

(7.17.2.1) Facility

Lages 1

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

1404.67

(7.17.2.3) Latitude

-27.808633

(7.17.2.4) Longitude

-50.363555

Row 2

(7.17.2.1) Facility

Rio Negro

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

790.84

(7.17.2.3) Latitude

-26.083283

(7.17.2.4) Longitude

-49.77273

Row 3

(7.17.2.1) Facility

Goiana

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

42597.5

(7.17.2.3) Latitude

-7.556655

(7.17.2.4) Longitude

-35.035038

Row 4

(7.17.2.1) Facility

Otacilio Costa

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

25393.89

(7.17.2.3) Latitude

-27.513275

(7.17.2.4) Longitude

-50.116602

Row 5

(7.17.2.1) Facility

Puma

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

206929.65

(7.17.2.3) Latitude

-24.258055

(7.17.2.4) Longitude

-50.746944

Row 6

(7.17.2.1) Facility

Itajaí

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

5061.61

(7.17.2.3) Latitude

-26.891305

(7.17.2.4) Longitude

-48.709733

Row 7

(7.17.2.1) Facility

Rio Verde

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

5574.43

(7.17.2.3) Latitude

-18.91806

(7.17.2.4) Longitude

-54.84417

Row 8

(7.17.2.1) Facility

Lages 2

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

0

(7.17.2.3) Latitude

-27.80863

(7.17.2.4) Longitude

-50.363555

Row 9

(7.17.2.1) Facility

Depósito Paranaguá

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

504.47

(7.17.2.3) Latitude

-25.539727

(7.17.2.4) Longitude

-48.535783

Row 10

(7.17.2.1) Facility

Feira de Santana

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

4934.82

(7.17.2.3) Latitude

-12.290827

(7.17.2.4) Longitude

-38.91198

Row 11

(7.17.2.1) Facility

Jundiaí Tijuco Preto

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

3450.8

(7.17.2.3) Latitude

-23.266963

(7.17.2.4) Longitude

-46.865105

Row 12

(7.17.2.1) Facility

Betim

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

7985.02

(7.17.2.3) Latitude

-19.964755

(7.17.2.4) Longitude

-44.120758

Row 13

(7.17.2.1) Facility

Manaus

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

2028.87

(7.17.2.3) Latitude

-3.0985

(7.17.2.4) Longitude

-59.943561

Row 14

(7.17.2.1) Facility

Suzano

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

7948.94

(7.17.2.3) Latitude

-23.5425

(7.17.2.4) Longitude

-46.31083

Row 15

(7.17.2.1) Facility

Manaus 2

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

3383.2

(7.17.2.3) Latitude

-3.0985

(7.17.2.4) Longitude

-59.943561

Row 16

(7.17.2.1) Facility

São Leopoldo

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

2958.28

(7.17.2.3) Latitude

-29.786711

(7.17.2.4) Longitude

-51.114425

Row 17

(7.17.2.1) Facility

Monte Alegre

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

140319.87

(7.17.2.3) Latitude

-24.310186

(7.17.2.4) Longitude

-50.6079

Row 18

(7.17.2.1) Facility

Horizonte

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

1387.56

(7.17.2.3) Latitude

-4.09752

(7.17.2.4) Longitude

-38.4909

Row 19

(7.17.2.1) Facility

Pilar

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

587.85

(7.17.2.3) Latitude

-34.61315

(7.17.2.4) Longitude

-58.37723

Row 20

(7.17.2.1) Facility

Jundiaí Distrito Industrial

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

4892.7

(7.17.2.3) Latitude

-23.1752

(7.17.2.4) Longitude

-46.931352

Row 21

(7.17.2.1) Facility

Escritório Sede

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

0

(7.17.2.3) Latitude

-23.589061

(7.17.2.4) Longitude

-46.682311

Row 22

(7.17.2.1) Facility

Paulínia

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

5176.85

(7.17.2.3) Latitude

-22.76111

(7.17.2.4) Longitude

-47.15417

Row 23

(7.17.2.1) Facility

Franco da Rocha

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

392.54

(7.17.2.3) Latitude

-23.32167

(7.17.2.4) Longitude

-46.72694

Row 24

(7.17.2.1) Facility

Angatuba

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

1021.28

(7.17.2.3) Latitude

-23.565066

(7.17.2.4) Longitude

-48.359227

Row 25

(7.17.2.1) Facility

Piracicaba

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

1579.44

(7.17.2.3) Latitude

-22.687536

(7.17.2.4) Longitude

-47.674963

Row 26

(7.17.2.1) Facility

Correia Pinto

(7.17.2.2) Scope 1 emissions (metric tons CO2e)

8407.78

(7.17.2.3) Latitude

-27.551488

(7.17.2.4) Longitude

-50.364019
[Add row]

(7.18) Do you include emissions pertaining to your business activity(ies) in your direct operations as part of your global gross Scope 1 figure?

Select from:
☑ Yes

(7.18.1) Select the form(s) in which you are reporting your agricultural/forestry emissions.

Select from:
☑ Emissions disaggregated by category (advised by the GHG Protocol)

(7.18.2) Report the Scope 1 emissions pertaining to your business activity(ies) and explain any exclusions. If applicable, disaggregate your agricultural/forestry by GHG emissions category.

Row 1

(7.18.2.1) Activity

Select from:
☑ Processing/Manufacturing

(7.18.2.2) Emissions category

Select from:
☑ Total

(7.18.2.3) Emissions (metric tons CO2e)

5.83

(7.18.2.4) Methodology

Select all that apply

☑ Default emissions factor

(7.18.2.5) Please explain

This emission value is linked to Industrial Process (scope 1) column on Brazilian GHG Protocol Metodology

Row 2

(7.18.2.1) Activity

Select from:

☑ Distribution

(7.18.2.2) Emissions category

Select from:

☑ Total

(7.18.2.3) Emissions (metric tons CO2e)

241585.38

(7.18.2.4) Methodology

Select all that apply

☑ Default emissions factor

(7.18.2.5) Please explain

This emission value is linked to Mobile Combustion emissions (scope 1) column on Brazilian GHG Protocol Metodology

Row 3

(7.18.2.1) Activity

Select from:

☑ Processing/Manufacturing

(7.18.2.2) Emissions category

Select from:

☑ Total

(7.18.2.3) Emissions (metric tons CO2e)

465459.6

(7.18.2.4) Methodology

Select all that apply

☑ Default emissions factor

(7.18.2.5) Please explain

This emission value is linked to Stationary Combustion emissions (scope 1) column on Brazilian GHG Protocol Metodology

Row 4

(7.18.2.1) Activity

Select from:

☑ Processing/Manufacturing

(7.18.2.2) Emissions category

Select from:

☑ Total

(7.18.2.3) Emissions (metric tons CO2e)

6810.5

(7.18.2.4) Methodology

Select all that apply

☑ Default emissions factor

(7.18.2.5) Please explain

This emission value is linked to Agricultural emissions (scope 1) column on Brazilian GHG Protocol Metodology. Is related to the application of nitrogen compounds in the implantation of planted forests.
[Add row]

(7.20) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.

Select all that apply

☑ By facility

(7.20.2) Break down your total gross global Scope 2 emissions by business facility.

Row 1

(7.20.2.1) Facility

Feira de Santana

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

232.79

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

0

Row 2

(7.20.2.1) Facility

Jundiaí Distrito Industrial

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

254.115

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

0

Row 3

(7.20.2.1) Facility

Betim

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

313.834

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

0

Row 4

(7.20.2.1) Facility

Manaus

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

120.78

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

0

Row 5

(7.20.2.1) Facility

Escritório Sede

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

13.762

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

0

Row 6

(7.20.2.1) Facility

Angatuba

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

6112.082

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

2900.78

Row 7

(7.20.2.1) Facility

Suzano

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

434.205

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

0

Row 8

(7.20.2.1) Facility

Pilar

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

66.553

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

0

Row 9

(7.20.2.1) Facility

Goiana

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

3462.431

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

0

Row 10

(7.20.2.1) Facility

Piracicaba

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

3758.481

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

1556.18

Row 11

(7.20.2.1) Facility

Lages 2

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

0

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

0

Row 12

(7.20.2.1) Facility

Paulínia

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

65.046

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

0

Row 13

(7.20.2.1) Facility

Monte Alegre

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

20561.612

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

0

Row 14

(7.20.2.1) Facility

Franco da Rocha

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

28.939

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

0

Row 15

(7.20.2.1) Facility

Manaus 2

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

147.603

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

0

Row 16

(7.20.2.1) Facility

São Leopoldo

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

231.558

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

0

Row 17

(7.20.2.1) Facility

Otacílio Costa

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

3654.477

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

0

Row 18

(7.20.2.1) Facility

Lages 1

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

452.444

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

0

Row 19

(7.20.2.1) Facility

Correia Pinto

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

4753.188

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

0

Row 20

(7.20.2.1) Facility

Despósito Paranaguá

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

27.134

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

0

Row 21

(7.20.2.1) Facility

Rio Verde

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

260.986

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

0

Row 22

(7.20.2.1) Facility

Rio Negro

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

155.901

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

0

Row 23

(7.20.2.1) Facility

Itajaí

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

258.608

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

0

Row 24

(7.20.2.1) Facility

Horizonte

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

150.855

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

0

Row 25

(7.20.2.1) Facility

Puma

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

4304.51

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

0

Row 26

(7.20.2.1) Facility

Jundiaí Tijuco Preto

(7.20.2.2) Scope 2, location-based (metric tons CO2e)

331.967

(7.20.2.3) Scope 2, market-based (metric tons CO2e)

0
[Add row]

(7.22) Break down your gross Scope 1 and Scope 2 emissions between your consolidated accounting group and other entities included in your response.

Consolidated accounting group

(7.22.1) Scope 1 emissions (metric tons CO2e)

720824.034

(7.22.2) Scope 2, location-based emissions (metric tons CO2e)

550153.908

(7.22.3) Scope 2, market-based emissions (metric tons CO2e)

4456.967

(7.22.4) Please explain

The "consolidated accounting group" includes emissions related to all industrial and forestry units, warehouses, and headquarters under the company's management in 2023, considering direct emissions from stationary combustion, mobile combustion, fugitive emissions, industrial processes and agricultural activities, and indirect emissions from purchased electricity and purchase of thermal energy. The greenhouse gas inventory calculation was based on the Brazilian GHG Protocol methodology and was verified by a third party, attesting to the veracity of the data.

All other entities

(7.22.1) Scope 1 emissions (metric tons CO2e)

0

(7.22.2) Scope 2, location-based emissions (metric tons CO2e)

0

(7.22.3) Scope 2, market-based emissions (metric tons CO2e)

0

(7.22.4) Please explain

All units under Klabin's management are included in the "consolidated accounting group".
[Fixed row]

(7.23) Is your organization able to break down your emissions data for any of the subsidiaries included in your CDP response?

Select from:

☑ No

(7.26) Allocate your emissions to your customers listed below according to the goods or services you have sold them in this reporting period.

Row 1

(7.26.1) Requesting member

Select from:

(7.26.2) Scope of emissions

Select from:

☑ Scope 1

(7.26.4) Allocation level

Select from:

☑ Company wide

(7.26.6) Allocation method

Select from:

☑ Allocation based on mass of products purchased

(7.26.7) Unit for market value or quantity of goods/services supplied

Select from:

☑ Metric tons

(7.26.8) Market value or quantity of goods/services supplied to the requesting member

(7.26.9) Emissions in metric tonnes of CO2e

0.142

(7.26.10) Uncertainty (±%)

1

(7.26.11) Major sources of emissions

This is the specific CO2 emissions (ton CO2e / ton of product) for Klabin S.A products scope 1 using the Brazilian GHG methodology. This allocation result is based on the specific emission of CO2e for each ton of product supplied to the customer in 2023. Thus, total CO2e emissions are composed of the multiplication between the reported value of emissions by the total quantity of product supplied to the customer. 65% of the emissions of CO2e of scope 1 come from the category of stationary combustion for power generation and 34% of the emissions of this scope are of the category of mobile combustion related to the transport of raw material and use of light vehicles for displacement. The remainder (2%) are emissions related to the other categories of scope 1 (fugitive emissions, industrial processes, among others). It is important to mention that we increased the consumption of renewable fuels for energy generation by 3%. These results indicate an energy matrix of 92.6% from renewable sources. When we look at the history of emissions, we had a 69% reduction in Scope 12 emissions per ton of product produced between the years 2004 and 2023. This shows Klabin's commitment to increasingly seek sustainable commercial alternatives, in line with the UN's Sustainable Development Goals and Klabin's Objectives for Sustainable Development (KODS) which guide the company's strategic planning aiming for a renewable future.

(7.26.12) Allocation verified by a third party?

Select from:

☑ Yes

(7.26.13) Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

This is the specific CO2 emissions (ton CO2e / ton of product) for Klabin S.A products using the Brazilian GHG methodology. This allocation result is based on the specific emission of CO2e for each ton of product supplied to the customer in 2023. The GHG Protocol is a tool used to understand, quantify and manage GHG emissions. is now the most widely used method worldwide by companies and governments to conduct GHG inventories. It is also compatible with ISO 14.064 and the methods of quantification of the Intergovernmental Panel on Climate Change (IPCC). This inventory of greenhouse gases is verified and audited by third parties (scopes 1, 2 and 3), attesting the veracity of the data and publicly reported results. Klabin conducts its inventory of greenhouse gases and reports this information publicly since 2010. As the program is already consolidated within the organization there are no limitations to the inventory, since all the data generated internally are available for elaboration of the inventory.

(7.26.14) Where published information has been used, please provide a reference

All greenhouse gas emissions of the company (scopes 1, 2, and 3) are reported based on the Brazilian GHG Protocol methodology and verified by a third party. Scope 1 and 2 emissions are 100% reported in the company's inventory based on the consumption performed by the company throughout the year, using primary data. This information is accounted for through the SAP system, ensuring the accuracy and traceability of the data. In this way, the emission factors are calculated based on actual consumption. From the data collected in this system, the information is entered into the Brazilian GHG Protocol greenhouse gas inventory calculation tool and 100% verified by an independent third party.

Row 2

(7.26.1) Requesting member

Select from:

(7.26.2) Scope of emissions

Select from:

☑ Scope 1

(7.26.4) Allocation level

Select from:

☑ Company wide

(7.26.6) Allocation method

Select from:

☑ Allocation based on mass of products purchased

(7.26.7) Unit for market value or quantity of goods/services supplied

Select from:

☑ Metric tons

(7.26.8) Market value or quantity of goods/services supplied to the requesting member

2662

(7.26.9) Emissions in metric tonnes of CO2e

0.142

(7.26.10) Uncertainty (±%)

1

(7.26.11) Major sources of emissions

This is the specific CO2 emissions (ton CO2e / ton of product) for Klabin S.A products scope 1 using the Brazilian GHG methodology. This allocation result is based on the specific emission of CO2e for each ton of product supplied to the customer in 2023. Thus, total CO2e emissions are composed of the multiplication between the reported value of emissions by the total quantity of product supplied to the customer. 65% of the emissions of CO2e of scope 1 come from the category of stationary combustion for power generation and 34% of the emissions of this scope are of the category of mobile combustion related to the transport of raw material and use of light vehicles for displacement. The remainder (2%) are emissions related to the other categories of scope 1 (fugitive emissions, industrial processes, among others). It is important to mention that we increased the consumption of renewable fuels for energy generation by 3%. These results indicate an energy matrix of 92.6% from renewable sources. When we look at the history of emissions, we had a 69% reduction in Scope 12 emissions per ton of product produced between the years 2004 and 2023. This shows Klabin's commitment to increasingly seek sustainable commercial alternatives, in line with the UN's Sustainable Development Goals and Klabin's Objectives for Sustainable Development (KODS) which guide the company's strategic planning aiming for a renewable future.

(7.26.12) Allocation verified by a third party?

Select from:

☑ Yes

(7.26.13) Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

This is the specific CO2 emissions (ton CO2e / ton of product) for Klabin S.A products using the Brazilian GHG methodology. This allocation result is based on the specific emission of CO2e for each ton of product supplied to the customer in 2023. The GHG Protocol is a tool used to understand, quantify and manage GHG emissions. is now the most widely used method worldwide by companies and governments to conduct GHG inventories. It is also compatible with ISO 14.064 and the methods of quantification of the Intergovernmental Panel on Climate Change (IPCC). This inventory of greenhouse gases is verified and audited by third parties (scopes 1, 2 and 3), attesting the veracity of the data and publicly reported results. Klabin conducts its inventory of greenhouse gases and reports this information publicly since 2010. As the program is already consolidated within the organization there are no limitations to the inventory, since all the data generated internally are available for elaboration of the inventory.

(7.26.14) Where published information has been used, please provide a reference

All greenhouse gas emissions of the company (scopes 1, 2, and 3) are reported based on the Brazilian GHG Protocol methodology and verified by a third party. Scope 1 and 2 emissions are 100% reported in the company's inventory based on the consumption performed by the company throughout the year, using primary data. This information is accounted for through the SAP system, ensuring the accuracy and traceability of the data. In this way, the emission factors are calculated based on actual consumption. From the data collected in this system, the information is entered into the Brazilian GHG Protocol greenhouse gas inventory calculation tool and 100% verified by an independent third party.

Row 3

(7.26.1) Requesting member

Select from:

(7.26.2) Scope of emissions

Select from:

☑ Scope 1

(7.26.4) Allocation level

Select from:

☑ Company wide

(7.26.6) Allocation method

Select from:

☑ Allocation based on mass of products purchased

(7.26.7) Unit for market value or quantity of goods/services supplied

Select from:

☑ Metric tons

(7.26.8) Market value or quantity of goods/services supplied to the requesting member

431241

(7.26.9) Emissions in metric tonnes of CO2e

0.142

(7.26.10) Uncertainty (±%)

1

(7.26.11) Major sources of emissions

This is the specific CO2 emissions (ton CO2e / ton of product) for Klabin S.A products scope 1 using the Brazilian GHG methodology. This allocation result is based on the specific emission of CO2e for each ton of product supplied to the customer in 2023. Thus, total CO2e emissions are composed of the multiplication between the reported value of emissions by the total quantity of product supplied to the customer. 65% of the emissions of CO2e of scope 1 come from the category of stationary combustion for power generation and 34% of the emissions of this scope are of the category of mobile combustion related to the transport of raw material and use of light vehicles for displacement. The remainder (2%) are emissions related to the other categories of scope 1 (fugitive emissions, industrial processes, among others). It is important to mention that we increased the consumption of renewable fuels for energy generation by 3%. These results indicate an energy matrix of 92.6% from renewable sources. When we look at the history of emissions, we had a 69% reduction in Scope 12 emissions per ton of product produced between the years 2004 and 2023. This shows Klabin's commitment to increasingly seek sustainable commercial alternatives, in line with the UN's Sustainable Development Goals and Klabin's Objectives for Sustainable Development (KODS) which guide the company's strategic planning aiming for a renewable future.

(7.26.12) Allocation verified by a third party?

Select from:

☑ Yes

(7.26.13) Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

This is the specific CO2 emissions (ton CO2e / ton of product) for Klabin S.A products using the Brazilian GHG methodology. This allocation result is based on the specific emission of CO2e for each ton of product supplied to the customer in 2023. The GHG Protocol is a tool used to understand, quantify and manage GHG emissions. is now the most widely used method worldwide by companies and governments to conduct GHG inventories. It is also compatible with ISO 14.064 and the methods of quantification of the Intergovernmental Panel on Climate Change (IPCC). This inventory of greenhouse gases is verified and audited by third parties (scopes 1, 2 and 3), attesting the veracity of the data and publicly reported results. Klabin conducts its inventory of greenhouse gases and reports this information publicly since 2010. As the program is already consolidated within the organization there are no limitations to the inventory, since all the data generated internally are available for elaboration of the inventory.

(7.26.14) Where published information has been used, please provide a reference

All greenhouse gas emissions of the company (scopes 1, 2, and 3) are reported based on the Brazilian GHG Protocol methodology and verified by a third party. Scope 1 and 2 emissions are 100% reported in the company's inventory based on the consumption performed by the company throughout the year, using primary data. This information is accounted for through the SAP system, ensuring the accuracy and traceability of the data. In this way, the emission factors are calculated based on actual consumption. From the data collected in this system, the information is entered into the Brazilian GHG Protocol greenhouse gas inventory calculation tool and 100% verified by an independent third party.

Row 4

(7.26.1) Requesting member

Select from:

(7.26.2) Scope of emissions

Select from:

☑ Scope 1

(7.26.4) Allocation level

Select from:

☑ Company wide

(7.26.6) Allocation method

Select from:

☑ Allocation based on mass of products purchased

(7.26.7) Unit for market value or quantity of goods/services supplied

Select from:

☑ Metric tons

(7.26.8) Market value or quantity of goods/services supplied to the requesting member

1383

(7.26.9) Emissions in metric tonnes of CO2e

0.142

(7.26.10) Uncertainty (±%)

1

(7.26.11) Major sources of emissions

This is the specific CO2 emissions (ton CO2e / ton of product) for Klabin S.A products scope 1 using the Brazilian GHG methodology. This allocation result is based on the specific emission of CO2e for each ton of product supplied to the customer in 2023. Thus, total CO2e emissions are composed of the multiplication between the reported value of emissions by the total quantity of product supplied to the customer. 65% of the emissions of CO2e of scope 1 come from the category of stationary combustion for power generation and 34% of the emissions of this scope are of the category of mobile combustion related to the transport of raw material and use of light vehicles for displacement. The remainder (2%) are emissions related to the other categories of scope 1 (fugitive emissions, industrial processes, among others). It is important to mention that we increased the consumption of renewable fuels for energy generation by 3%. These results indicate an energy matrix of 92.6% from renewable sources. When we look at the history of emissions, we had a 69% reduction in Scope 12 emissions per ton of product produced between the years 2004 and 2023. This shows Klabin's commitment to increasingly seek sustainable commercial alternatives, in line with the UN's Sustainable Development Goals and Klabin's Objectives for Sustainable Development (KODS) which guide the company's strategic planning aiming for a renewable future.

(7.26.12) Allocation verified by a third party?

Select from:

☑ Yes

(7.26.13) Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

This is the specific CO2 emissions (ton CO2e / ton of product) for Klabin S.A products using the Brazilian GHG methodology. This allocation result is based on the specific emission of CO2e for each ton of product supplied to the customer in 2023. The GHG Protocol is a tool used to understand, quantify and manage GHG emissions. is now the most widely used method worldwide by companies and governments to conduct GHG inventories. It is also compatible with ISO 14.064 and the methods of quantification of the Intergovernmental Panel on Climate Change (IPCC). This inventory of greenhouse gases is verified and audited by third parties (scopes 1, 2 and 3), attesting the veracity of the data and publicly reported results. Klabin conducts its inventory of greenhouse gases and reports this information publicly since 2010. As the program is already consolidated within the organization there are no limitations to the inventory, since all the data generated internally are available for elaboration of the inventory.

(7.26.14) Where published information has been used, please provide a reference

All greenhouse gas emissions of the company (scopes 1, 2, and 3) are reported based on the Brazilian GHG Protocol methodology and verified by a third party. Scope 1 and 2 emissions are 100% reported in the company's inventory based on the consumption performed by the company throughout the year, using primary data. This information is accounted for through the SAP system, ensuring the accuracy and traceability of the data. In this way, the emission factors are calculated based on actual consumption. From the data collected in this system, the information is entered into the Brazilian GHG Protocol greenhouse gas inventory calculation tool and 100% verified by an independent third party.

Row 5

(7.26.1) Requesting member

Select from:

(7.26.2) Scope of emissions

Select from:

☑ Scope 1

(7.26.4) Allocation level

Select from:

☑ Company wide

(7.26.6) Allocation method

Select from:

☑ Allocation based on mass of products purchased

(7.26.7) Unit for market value or quantity of goods/services supplied

Select from:

☑ Metric tons

(7.26.8) Market value or quantity of goods/services supplied to the requesting member

422

(7.26.9) Emissions in metric tonnes of CO2e

0.142

(7.26.10) Uncertainty (±%)

1

(7.26.11) Major sources of emissions

This is the specific CO2 emissions (ton CO2e / ton of product) for Klabin S.A products scope 1 using the Brazilian GHG methodology. This allocation result is based on the specific emission of CO2e for each ton of product supplied to the customer in 2023. Thus, total CO2e emissions are composed of the multiplication between the reported value of emissions by the total quantity of product supplied to the customer. 65% of the emissions of CO2e of scope 1 come from the category of stationary combustion for power generation and 34% of the emissions of this scope are of the category of mobile combustion related to the transport of raw material and use of light vehicles for displacement. The remainder (2%) are emissions related to the other categories of scope 1 (fugitive emissions, industrial processes, among others). It is important to mention that we increased the consumption of renewable fuels for energy generation by 3%. These results indicate an energy matrix of 92.6% from renewable sources. When we look at the history of emissions, we had a 69% reduction in Scope 12 emissions per ton of product produced between the years 2004 and 2023. This shows Klabin's commitment to increasingly seek sustainable commercial alternatives, in line with the UN's Sustainable Development Goals and Klabin's Objectives for Sustainable Development (KODS) which guide the company's strategic planning aiming for a renewable future.

(7.26.12) Allocation verified by a third party?

Select from:

☑ Yes

(7.26.13) Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

This is the specific CO2 emissions (ton CO2e / ton of product) for Klabin S.A products using the Brazilian GHG methodology. This allocation result is based on the specific emission of CO2e for each ton of product supplied to the customer in 2023. The GHG Protocol is a tool used to understand, quantify and manage GHG emissions. is now the most widely used method worldwide by companies and governments to conduct GHG inventories. It is also compatible with ISO 14.064 and the methods of quantification of the Intergovernmental Panel on Climate Change (IPCC). This inventory of greenhouse gases is verified and audited by third parties (scopes 1, 2 and 3), attesting the veracity of the data and publicly reported results. Klabin conducts its inventory of greenhouse gases and reports this information publicly since 2010. As the program is already consolidated within the organization there are no limitations to the inventory, since all the data generated internally are available for elaboration of the inventory.

(7.26.14) Where published information has been used, please provide a reference

All greenhouse gas emissions of the company (scopes 1, 2, and 3) are reported based on the Brazilian GHG Protocol methodology and verified by a third party. Scope 1 and 2 emissions are 100% reported in the company's inventory based on the consumption performed by the company throughout the year, using primary data. This information is accounted for through the SAP system, ensuring the accuracy and traceability of the data. In this way, the emission factors are calculated based on actual consumption. From the data collected in this system, the information is entered into the Brazilian GHG Protocol greenhouse gas inventory calculation tool and 100% verified by an independent third party.

Row 6

(7.26.1) Requesting member

Select from:

(7.26.2) Scope of emissions

Select from:

☑ Scope 1

(7.26.4) Allocation level

Select from:

☑ Company wide

(7.26.6) Allocation method

Select from:

☑ Allocation based on mass of products purchased

(7.26.7) Unit for market value or quantity of goods/services supplied

Select from:

☑ Metric tons

(7.26.8) Market value or quantity of goods/services supplied to the requesting member

0

(7.26.9) Emissions in metric tonnes of CO2e

0.142

(7.26.10) Uncertainty (±%)

1

(7.26.11) Major sources of emissions

This is the specific CO2 emissions (ton CO2e / ton of product) for Klabin S.A products scope 1 using the Brazilian GHG methodology. This allocation result is based on the specific emission of CO2e for each ton of product supplied to the customer in 2023. Thus, total CO2e emissions are composed of the multiplication between the reported value of emissions by the total quantity of product supplied to the customer. 65% of the emissions of CO2e of scope 1 come from the category of stationary combustion for power generation and 34% of the emissions of this scope are of the category of mobile combustion related to the transport of raw material and use of light vehicles for displacement. The remainder (2%) are emissions related to the other categories of scope 1 (fugitive emissions, industrial processes, among others). It is important to mention that we increased the consumption of renewable fuels for energy generation by 3%. These results indicate an energy matrix of 92.6% from renewable sources. When we look at the history of emissions, we had a 69% reduction in Scope 12 emissions per ton of product produced between the years 2004 and 2023. This shows Klabin's commitment to increasingly seek sustainable commercial alternatives, in line with the UN's Sustainable Development Goals and Klabin's Objectives for Sustainable Development (KODS) which guide the company's strategic planning aiming for a renewable future.

(7.26.12) Allocation verified by a third party?

Select from:

☑ Yes

(7.26.13) Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

This is the specific CO2 emissions (ton CO2e / ton of product) for Klabin S.A products using the Brazilian GHG methodology. This allocation result is based on the specific emission of CO2e for each ton of product supplied to the customer in 2023. The GHG Protocol is a tool used to understand, quantify and manage GHG emissions. is now the most widely used method worldwide by companies and governments to conduct GHG inventories. It is also compatible with ISO 14.064 and the methods of quantification of the Intergovernmental Panel on Climate Change (IPCC). This inventory of greenhouse gases is verified and audited by third parties (scopes 1, 2 and 3), attesting the veracity of the data and publicly reported results. Klabin conducts its inventory of greenhouse gases and reports this information publicly since 2010. As the program is already consolidated within the organization there are no limitations to the inventory, since all the data generated internally are available for elaboration of the inventory.

(7.26.14) Where published information has been used, please provide a reference

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Row 7

(7.26.1) Requesting member

Select from:

(7.26.2) Scope of emissions

Select from:

☑ Scope 1

(7.26.4) Allocation level

Select from:

☑ Company wide

(7.26.6) Allocation method

Select from:

☑ Allocation based on mass of products purchased

(7.26.7) Unit for market value or quantity of goods/services supplied

Select from:

☑ Metric tons

(7.26.8) Market value or quantity of goods/services supplied to the requesting member

6401.799

(7.26.9) Emissions in metric tonnes of CO2e

0.142

(7.26.10) Uncertainty (±%)

1

(7.26.11) Major sources of emissions

This is the specific CO2 emissions (ton CO2e / ton of product) for Klabin S.A products scope 1 using the Brazilian GHG methodology. This allocation result is based on the specific emission of CO2e for each ton of product supplied to the customer in 2023. Thus, total CO2e emissions are composed of the multiplication between the reported value of emissions by the total quantity of product supplied to the customer. 65% of the emissions of CO2e of scope 1 come from the category of stationary combustion for power generation and 34% of the emissions of this scope are of the category of mobile combustion related to the transport of raw material and use of light vehicles for displacement. The remainder (2%) are emissions related to the other categories of scope 1 (fugitive emissions, industrial processes, among others). It is important to mention that we increased the consumption of renewable fuels for energy generation by 3%. These results indicate an energy matrix of 92.6% from renewable sources. When we look at the history of emissions, we had a 69% reduction in Scope 12 emissions per ton of product produced between the years 2004 and 2023. This shows Klabin's commitment to increasingly seek sustainable commercial alternatives, in line with the UN's Sustainable Development Goals and Klabin's Objectives for Sustainable Development (KODS) which guide the company's strategic planning aiming for a renewable future.

(7.26.12) Allocation verified by a third party?

Select from:

☑ Yes

(7.26.13) Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

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Row 8

(7.26.1) Requesting member

Select from:

(7.26.2) Scope of emissions

Select from:

☑ Scope 1

(7.26.4) Allocation level

Select from:

☑ Company wide

(7.26.6) Allocation method

Select from:

☑ Allocation based on mass of products purchased

(7.26.7) Unit for market value or quantity of goods/services supplied

Select from:

☑ Metric tons

(7.26.8) Market value or quantity of goods/services supplied to the requesting member

3525

(7.26.9) Emissions in metric tonnes of CO2e

0.142

(7.26.10) Uncertainty (±%)

1

(7.26.11) Major sources of emissions

This is the specific CO2 emissions (ton CO2e / ton of product) for Klabin S.A products scope 1 using the Brazilian GHG methodology. This allocation result is based on the specific emission of CO2e for each ton of product supplied to the customer in 2023. Thus, total CO2e emissions are composed of the multiplication between the reported value of emissions by the total quantity of product supplied to the customer. 65% of the emissions of CO2e of scope 1 come from the category of stationary combustion for power generation and 34% of the emissions of this scope are of the category of mobile combustion related to the transport of raw material and use of light vehicles for displacement. The remainder (2%) are emissions related to the other categories of scope 1 (fugitive emissions, industrial processes, among others). It is important to mention that we increased the consumption of renewable fuels for energy generation by 3%. These results indicate an energy matrix of 92.6% from renewable sources. When we look at the history of emissions, we had a 69% reduction in Scope 12 emissions per ton of product produced between the years 2004 and 2023. This shows Klabin's commitment to increasingly seek sustainable commercial alternatives, in line with the UN's Sustainable Development Goals and Klabin's Objectives for Sustainable Development (KODS) which guide the company's strategic planning aiming for a renewable future.

(7.26.12) Allocation verified by a third party?

Select from:

☑ Yes

(7.26.13) Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

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Row 9

(7.26.1) Requesting member

Select from:

(7.26.2) Scope of emissions

Select from:

☑ Scope 1

(7.26.4) Allocation level

Select from:

☑ Company wide

(7.26.6) Allocation method

Select from:

☑ Allocation based on mass of products purchased

(7.26.7) Unit for market value or quantity of goods/services supplied

Select from:

☑ Metric tons

(7.26.8) Market value or quantity of goods/services supplied to the requesting member

5630

(7.26.9) Emissions in metric tonnes of CO2e

0.142

(7.26.10) Uncertainty (±%)

1

(7.26.11) Major sources of emissions

This is the specific CO2 emissions (ton CO2e / ton of product) for Klabin S.A products scope 1 using the Brazilian GHG methodology. This allocation result is based on the specific emission of CO2e for each ton of product supplied to the customer in 2023. Thus, total CO2e emissions are composed of the multiplication between the reported value of emissions by the total quantity of product supplied to the customer. 65% of the emissions of CO2e of scope 1 come from the category of stationary combustion for power generation and 34% of the emissions of this scope are of the category of mobile combustion related to the transport of raw material and use of light vehicles for displacement. The remainder (2%) are emissions related to the other categories of scope 1 (fugitive emissions, industrial processes, among others). It is important to mention that we increased the consumption of renewable fuels for energy generation by 3%. These results indicate an energy matrix of 92.6% from renewable sources. When we look at the history of emissions, we had a 69% reduction in Scope 12 emissions per ton of product produced between the years 2004 and 2023. This shows Klabin's commitment to increasingly seek sustainable commercial alternatives, in line with the UN's Sustainable Development Goals and Klabin's Objectives for Sustainable Development (KODS) which guide the company's strategic planning aiming for a renewable future.

(7.26.12) Allocation verified by a third party?

Select from:

☑ Yes

(7.26.13) Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

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(7.26.14) Where published information has been used, please provide a reference

All greenhouse gas emissions of the company (scopes 1, 2, and 3) are reported based on the Brazilian GHG Protocol methodology and verified by a third party. Scope 1 and 2 emissions are 100% reported in the company's inventory based on the consumption performed by the company throughout the year, using primary data. This information is accounted for through the SAP system, ensuring the accuracy and traceability of the data. In this way, the emission factors are calculated based on actual consumption. From the data collected in this system, the information is entered into the Brazilian GHG Protocol greenhouse gas inventory calculation tool and 100% verified by an independent third party.

Row 10

(7.26.1) Requesting member

Select from:

(7.26.2) Scope of emissions

Select from:

☑ Scope 1

(7.26.4) Allocation level

Select from:

☑ Company wide

(7.26.6) Allocation method

Select from:

☑ Allocation based on mass of products purchased

(7.26.7) Unit for market value or quantity of goods/services supplied

Select from:

☑ Metric tons

(7.26.8) Market value or quantity of goods/services supplied to the requesting member

6453

(7.26.9) Emissions in metric tonnes of CO2e

0.142

(7.26.10) Uncertainty (±%)

1

(7.26.11) Major sources of emissions

This is the specific CO2 emissions (ton CO2e / ton of product) for Klabin S.A products scope 1 using the Brazilian GHG methodology. This allocation result is based on the specific emission of CO2e for each ton of product supplied to the customer in 2023. Thus, total CO2e emissions are composed of the multiplication between the reported value of emissions by the total quantity of product supplied to the customer. 65% of the emissions of CO2e of scope 1 come from the category of stationary combustion for power generation and 34% of the emissions of this scope are of the category of mobile combustion related to the transport of raw material and use of light vehicles for displacement. The remainder (2%) are emissions related to the other categories of scope 1 (fugitive emissions, industrial processes, among others). It is important to mention that we increased the consumption of renewable fuels for energy generation by 3%. These results indicate an energy matrix of 92.6% from renewable sources. When we look at the history of emissions, we had a 69% reduction in Scope 12 emissions per ton of product produced between the years 2004 and 2023. This shows Klabin's commitment to increasingly seek sustainable commercial alternatives, in line with the UN's Sustainable Development Goals and Klabin's Objectives for Sustainable Development (KODS) which guide the company's strategic planning aiming for a renewable future.

(7.26.12) Allocation verified by a third party?

Select from:

☑ Yes

(7.26.13) Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

This is the specific CO2 emissions (ton CO2e / ton of product) for Klabin S.A products using the Brazilian GHG methodology. This allocation result is based on the specific emission of CO2e for each ton of product supplied to the customer in 2023. The GHG Protocol is a tool used to understand, quantify and manage GHG emissions. is now the most widely used method worldwide by companies and governments to conduct GHG inventories. It is also compatible with ISO 14.064 and the methods of quantification of the Intergovernmental Panel on Climate Change (IPCC). This inventory of greenhouse gases is verified and audited by third parties (scopes 1, 2 and 3), attesting the veracity of the data and publicly reported results. Klabin conducts its inventory of greenhouse gases and reports this information publicly since 2010. As the program is already consolidated within the organization there are no limitations to the inventory, since all the data generated internally are available for elaboration of the inventory.

(7.26.14) Where published information has been used, please provide a reference

All greenhouse gas emissions of the company (scopes 1, 2, and 3) are reported based on the Brazilian GHG Protocol methodology and verified by a third party. Scope 1 and 2 emissions are 100% reported in the company's inventory based on the consumption performed by the company throughout the year, using primary data. This information is accounted for through the SAP system, ensuring the accuracy and traceability of the data. In this way, the emission factors are calculated based on actual consumption. From the data collected in this system, the information is entered into the Brazilian GHG Protocol greenhouse gas inventory calculation tool and 100% verified by an independent third party.

Row 11

(7.26.1) Requesting member

Select from:

(7.26.2) Scope of emissions

Select from:

☑ Scope 1

(7.26.4) Allocation level

Select from:

☑ Company wide

(7.26.6) Allocation method

Select from:

☑ Allocation based on mass of products purchased

(7.26.7) Unit for market value or quantity of goods/services supplied

Select from:

☑ Metric tons

(7.26.8) Market value or quantity of goods/services supplied to the requesting member

15221

(7.26.9) Emissions in metric tonnes of CO2e

0.142

(7.26.10) Uncertainty (±%)

1

(7.26.11) Major sources of emissions

This is the specific CO2 emissions (ton CO2e / ton of product) for Klabin S.A products scope 1 using the Brazilian GHG methodology. This allocation result is based on the specific emission of CO2e for each ton of product supplied to the customer in 2023. Thus, total CO2e emissions are composed of the multiplication between the reported value of emissions by the total quantity of product supplied to the customer. 65% of the emissions of CO2e of scope 1 come from the category of stationary combustion for power generation and 34% of the emissions of this scope are of the category of mobile combustion related to the transport of raw material and use of light vehicles for displacement. The remainder (2%) are emissions related to the other categories of scope 1 (fugitive emissions, industrial processes, among others). It is important to mention that we increased the consumption of renewable fuels for energy generation by 3%. These results indicate an energy matrix of 92.6% from renewable sources. When we look at the history of emissions, we had a 69% reduction in Scope 12 emissions per ton of product produced between the years 2004 and 2023. This shows Klabin's commitment to increasingly seek sustainable commercial alternatives, in line with the UN's Sustainable Development Goals and Klabin's Objectives for Sustainable Development (KODS) which guide the company's strategic planning aiming for a renewable future.

(7.26.12) Allocation verified by a third party?

Select from:

☑ Yes

(7.26.13) Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

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Row 12

(7.26.1) Requesting member

Select from:

(7.26.2) Scope of emissions

Select from:

☑ Scope 1

(7.26.4) Allocation level

Select from:

☑ Company wide

(7.26.6) Allocation method

Select from:

☑ Allocation based on mass of products purchased

(7.26.7) Unit for market value or quantity of goods/services supplied

Select from:

☑ Metric tons

(7.26.8) Market value or quantity of goods/services supplied to the requesting member

50835

(7.26.9) Emissions in metric tonnes of CO2e

0.142

(7.26.10) Uncertainty (±%)

1

(7.26.11) Major sources of emissions

This is the specific CO2 emissions (ton CO2e / ton of product) for Klabin S.A products using the Brazilian GHG methodology. This allocation result is based on the specific emission of CO2e for each ton of product supplied to the customer in 2023. The GHG Protocol is a tool used to understand, quantify and manage GHG emissions. is now the most widely used method worldwide by companies and governments to conduct GHG inventories. It is also compatible with ISO 14.064 and the methods of quantification of the Intergovernmental Panel on Climate Change (IPCC). This inventory of greenhouse gases is verified and audited by third parties (scopes 1, 2 and 3), attesting the veracity of the data and publicly reported results. Klabin conducts its inventory of greenhouse gases and reports this information publicly since 2010. As the program is already consolidated within the organization there are no limitations to the inventory, since all the data generated internally are available for elaboration of the inventory.

(7.26.12) Allocation verified by a third party?

Select from:

☑ Yes

(7.26.13) Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

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Row 13

(7.26.1) Requesting member

Select from:

(7.26.2) Scope of emissions

Select from:

☑ Scope 1

(7.26.4) Allocation level

Select from:

☑ Company wide

(7.26.6) Allocation method

Select from:

☑ Allocation based on mass of products purchased

(7.26.7) Unit for market value or quantity of goods/services supplied

Select from:

☑ Metric tons

(7.26.8) Market value or quantity of goods/services supplied to the requesting member

827

(7.26.9) Emissions in metric tonnes of CO2e

0.142

(7.26.10) Uncertainty (±%)

1

(7.26.11) Major sources of emissions

This is the specific CO2 emissions (ton CO2e / ton of product) for Klabin S.A products scope 1 using the Brazilian GHG methodology. This allocation result is based on the specific emission of CO2e for each ton of product supplied to the customer in 2023. Thus, total CO2e emissions are composed of the multiplication between the reported value of emissions by the total quantity of product supplied to the customer. 65% of the emissions of CO2e of scope 1 come from the category of stationary combustion for power generation and 34% of the emissions of this scope are of the category of mobile combustion related to the transport of raw material and use of light vehicles for displacement. The remainder (2%) are emissions related to the other categories of scope 1 (fugitive emissions, industrial processes, among others). It is important to mention that we increased the consumption of renewable fuels for energy generation by 3%. These results indicate an energy matrix of 92.6% from renewable sources. When we look at the history of emissions, we had a 69% reduction in Scope 12 emissions per ton of product produced between the years 2004 and 2023. This shows Klabin's commitment to increasingly seek sustainable commercial alternatives, in line with the UN's Sustainable Development Goals and Klabin's Objectives for Sustainable Development (KODS) which guide the company's strategic planning aiming for a renewable future.

(7.26.12) Allocation verified by a third party?

Select from:

☑ Yes

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Row 14

(7.26.1) Requesting member

Select from:

(7.26.2) Scope of emissions

Select from:

☑ Scope 1

(7.26.4) Allocation level

Select from:

☑ Company wide

(7.26.6) Allocation method

Select from:

☑ Allocation based on mass of products purchased

(7.26.7) Unit for market value or quantity of goods/services supplied

Select from:

☑ Metric tons

(7.26.8) Market value or quantity of goods/services supplied to the requesting member

48722

(7.26.9) Emissions in metric tonnes of CO2e

0.142

(7.26.10) Uncertainty (±%)

1

(7.26.11) Major sources of emissions

This is the specific CO2 emissions (ton CO2e / ton of product) for Klabin S.A products scope 1 using the Brazilian GHG methodology. This allocation result is based on the specific emission of CO2e for each ton of product supplied to the customer in 2023. Thus, total CO2e emissions are composed of the multiplication between the reported value of emissions by the total quantity of product supplied to the customer. 65% of the emissions of CO2e of scope 1 come from the category of stationary combustion for power generation and 34% of the emissions of this scope are of the category of mobile combustion related to the transport of raw material and use of light vehicles for displacement. The remainder (2%) are emissions related to the other categories of scope 1 (fugitive emissions, industrial processes, among others). It is important to mention that we increased the consumption of renewable fuels for energy generation by 3%. These results indicate an energy matrix of 92.6% from renewable sources. When we look at the history of emissions, we had a 69% reduction in Scope 12 emissions per ton of product produced between the years 2004 and 2023. This shows Klabin's commitment to increasingly seek sustainable commercial alternatives, in line with the UN's Sustainable Development Goals and Klabin's Objectives for Sustainable Development (KODS) which guide the company's strategic planning aiming for a renewable future.

(7.26.12) Allocation verified by a third party?

Select from:

☑ Yes

(7.26.13) Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

This is the specific CO2 emissions (ton CO2e / ton of product) for Klabin S.A products using the Brazilian GHG methodology. This allocation result is based on the specific emission of CO2e for each ton of product supplied to the customer in 2023. The GHG Protocol is a tool used to understand, quantify and manage GHG emissions. is now the most widely used method worldwide by companies and governments to conduct GHG inventories. It is also compatible with ISO 14.064 and the methods of quantification of the Intergovernmental Panel on Climate Change (IPCC). This inventory of greenhouse gases is verified and audited by third parties (scopes 1, 2 and 3), attesting the veracity of the data and publicly reported results. Klabin conducts its inventory of greenhouse gases and reports this information publicly since 2010. As the program is already consolidated within the organization there are no limitations to the inventory, since all the data generated internally are available for elaboration of the inventory.

(7.26.14) Where published information has been used, please provide a reference

All greenhouse gas emissions of the company (scopes 1, 2, and 3) are reported based on the Brazilian GHG Protocol methodology and verified by a third party. Scope 1 and 2 emissions are 100% reported in the company's inventory based on the consumption performed by the company throughout the year, using primary data. This information is accounted for through the SAP system, ensuring the accuracy and traceability of the data. In this way, the emission factors are calculated based on actual consumption. From the data collected in this system, the information is entered into the Brazilian GHG Protocol greenhouse gas inventory calculation tool and 100% verified by an independent third party.
[Add row]

(7.27) What are the challenges in allocating emissions to different customers, and what would help you to overcome these challenges?

Row 1

(7.27.1) Allocation challenges

Select from:
☑ We face no challenges

(7.27.2) Please explain what would help you overcome these challenges

Klabin conducts its greenhouse gas inventory and publicly informs this data since 2010. Since the program is already consolidated within the organization, there are no quantification limitations, since all internally generated data is available for inventory preparation.The GHG Protocol is a tool used to understand, quantify and manage GHG emissions. It is now the most widely used method in the world by companies and governments to conduct GHG inventories. It is also compatible with ISO 14.064 and the methods of quantification of the Intergovernmental Panel on Climate Change (IPCC).This inventory of greenhouse gases is verified and audited by third parties (scopes 1, 2 and 3), attesting to the veracity of the data and publicly disclosed results.Thus, considering the calculation of specific emissions for the products produced by Klabin S/A, we do not identify challenges so that it is possible to make available to our customers the specific emissions information of the organization.
[Add row]

(7.28) Do you plan to develop your capabilities to allocate emissions to your customers in the future?

(7.28.1) Do you plan to develop your capabilities to allocate emissions to your customers in the future?

Select from:

☑ Yes

(7.28.2) Describe how you plan to develop your capabilities

Klabin conducts its greenhouse gas inventory and publicly informs this data since 2010. Since the program is already consolidated within the organization, there are no quantification limitations since all internally generated data is available for inventory preparation. Still, the development of studies and maps of externalities in Klabin's operation, together with the complete life cycle analysis of all its products, could provide better conditions for allocating emissions to different customers. 100% of the product categories produced are covered by Life Cycle Assessment (LCA), Water Footprint, and Carbon Footprint based in ISO14040 methodology, including the Carbon Footprint according GHG Protocol Product Life Cycle Accounting and Reporting Standard. Currently, all company businesses have Life Cycle Analysis (LCA), Water Footprint, and Carbon Footprint assessments for products in their portfolio. In 2023, the expansion of LCA studies mainly focused on the packaging unit, where the evaluated portfolio increased from 34% to 48%. The product portfolio of pulp and paper had already achieved 100% coverage in previous years. These studies continue to contribute to the development of a more sustainable portfolio, promoting actions to mitigate environmental impacts, as well as supporting similar initiatives led by clients. The studies represented an investment around BRL 149,700 in 2023. The results of these studies contribute to comprehension on the environmental impact and CO2eq emissions during the lifecycle of the products, providing important information to improve efforts in reduce environmental impacts among the value chain.
[Fixed row]

(7.29) What percentage of your total operational spend in the reporting year was on energy?

Select from:
☑ More than 60% but less than or equal to 65%

(7.30) Select which energy-related activities your organization has undertaken.

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	*Select from:* ☑ Yes
Consumption of purchased or acquired electricity	*Select from:* ☑ Yes

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of purchased or acquired heat	*Select from:* ☑ No
Consumption of purchased or acquired steam	*Select from:* ☑ Yes
Consumption of purchased or acquired cooling	*Select from:* ☑ No
Generation of electricity, heat, steam, or cooling	*Select from:* ☑ Yes

[Fixed row]

(7.30.1) Report your organization’s energy consumption totals (excluding feedstocks) in MWh.

Consumption of fuel (excluding feedstock)

(7.30.1.1) Heating value

Select from:

☑ LHV (lower heating value)

(7.30.1.2) MWh from renewable sources

19227348.96

(7.30.1.3) MWh from non-renewable sources

1536592.42

(7.30.1.4) Total (renewable and non-renewable) MWh

20763941.38

Consumption of purchased or acquired electricity

(7.30.1.1) Heating value

Select from:
☑ LHV (lower heating value)

(7.30.1.2) MWh from renewable sources

1179760

(7.30.1.3) MWh from non-renewable sources

0

(7.30.1.4) Total (renewable and non-renewable) MWh

1179760

Consumption of purchased or acquired steam

(7.30.1.1) Heating value

Select from:
☑ LHV (lower heating value)

(7.30.1.2) MWh from renewable sources

651609.59

(7.30.1.3) MWh from non-renewable sources

0

(7.30.1.4) Total (renewable and non-renewable) MWh

651609.59

Consumption of self-generated non-fuel renewable energy

(7.30.1.1) Heating value

Select from:
☑ LHV (lower heating value)

(7.30.1.2) MWh from renewable sources

70511.23

(7.30.1.4) Total (renewable and non-renewable) MWh

70511.23

Total energy consumption

(7.30.1.1) Heating value

Select from:
☑ LHV (lower heating value)

(7.30.1.2) MWh from renewable sources

21058718.55

(7.30.1.3) MWh from non-renewable sources

1536592.42

(7.30.1.4) Total (renewable and non-renewable) MWh

22595310.97
[Fixed row]

(7.30.6) Select the applications of your organization's consumption of fuel.

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	*Select from:* ☑ No
Consumption of fuel for the generation of heat	*Select from:* ☑ Yes
Consumption of fuel for the generation of steam	*Select from:* ☑ Yes
Consumption of fuel for the generation of cooling	*Select from:* ☑ No
Consumption of fuel for co-generation or tri-generation	*Select from:* ☑ Yes

[Fixed row]

(7.30.7) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.

Sustainable biomass

(7.30.7.1) Heating value

Select from:

☑ LHV

(7.30.7.2) Total fuel MWh consumed by the organization

7911759.63

(7.30.7.4) MWh fuel consumed for self-generation of heat

0

(7.30.7.5) MWh fuel consumed for self-generation of steam

56762.21

(7.30.7.6) MWh fuel consumed for self-generation of cooling

0

(7.30.7.7) MWh fuel consumed for self- cogeneration or self-trigeneration

7854997.42

(7.30.7.8) Comment

In 2023 we had a 6% increase in the biomass consumption in the company, part of this result was due to the full operation of the biomass gasification at the Puma unit. Klabin was the first pulp and paper company in the Southern Hemisphere to earn FSC Forest Management certification, in 1998. Widely approved in the sector and recognized by stakeholders, the certification brings security and credibility to sustainable forest management. Klabin is pioneer in the adoption of mosaic management concept - planted forests interspersed with native forests for conservation. In 2023, Klabin had 374,000 hectares of planted forests (eucalyptus and pine). Regardless of wheter the planting spot is intended for biomass production or for processing (cellulose), field operation-procedures follow the same quality (environmental) parameters.

Other biomass

(7.30.7.1) Heating value

Select from:

☑ LHV

(7.30.7.2) Total fuel MWh consumed by the organization

0

(7.30.7.4) MWh fuel consumed for self-generation of heat

0

(7.30.7.5) MWh fuel consumed for self-generation of steam

0

(7.30.7.6) MWh fuel consumed for self-generation of cooling

0

(7.30.7.7) MWh fuel consumed for self- cogeneration or self-trigeneration

0

(7.30.7.8) Comment

All biomass consumption is sustainable and reported in the field above.

Other renewable fuels (e.g. renewable hydrogen)

(7.30.7.1) Heating value

Select from:

☑ LHV

(7.30.7.2) Total fuel MWh consumed by the organization

11471539

(7.30.7.4) MWh fuel consumed for self-generation of heat

0

(7.30.7.5) MWh fuel consumed for self-generation of steam

0

(7.30.7.6) MWh fuel consumed for self-generation of cooling

0

(7.30.7.7) MWh fuel consumed for self- cogeneration or self-trigeneration

11471539

(7.30.7.8) Comment

In 2023, we maintained the consumption of fuels from renewable sources (black liquor, pitch, tall oil, methanol, and hydrogen), which together have the highest share of the total energy consumed.

Coal

(7.30.7.1) Heating value

Select from:

☑ LHV

(7.30.7.2) Total fuel MWh consumed by the organization

0

(7.30.7.4) MWh fuel consumed for self-generation of heat

0

(7.30.7.5) MWh fuel consumed for self-generation of steam

0

(7.30.7.6) MWh fuel consumed for self-generation of cooling

0

(7.30.7.7) MWh fuel consumed for self- cogeneration or self-trigeneration

0

(7.30.7.8) Comment

Klabin does not use coal in its operations.

Oil

(7.30.7.1) Heating value

Select from:
☑ LHV

(7.30.7.2) Total fuel MWh consumed by the organization

972961.66

(7.30.7.4) MWh fuel consumed for self-generation of heat

0

(7.30.7.5) MWh fuel consumed for self-generation of steam

36846.65

(7.30.7.6) MWh fuel consumed for self-generation of cooling

0

(7.30.7.7) MWh fuel consumed for self- cogeneration or self-trigeneration

936115.01

(7.30.7.8) Comment

In 2023 there was a 16% reduction in fuel oil consumption, due to the year-round of biomass gasification at the Puma 2 project and the replacement by bio-oil in the lime kilns at the Correia Pinto unit. Klabin always seeks to replace fossil fuels with renewable alternatives in its operations. Of highlight this year was the start of tests to use bio-oil in the lime kilns at the Monte Alegre unit. Over the course of 2023, 3 industrial-scale tests were carried out, achieving 100% substitution of the use of fuel oil during the operation of the equipment.

Gas

(7.30.7.1) Heating value

Select from:

☑ LHV

(7.30.7.2) Total fuel MWh consumed by the organization

413026.8

(7.30.7.4) MWh fuel consumed for self-generation of heat

0

(7.30.7.5) MWh fuel consumed for self-generation of steam

413026.8

(7.30.7.6) MWh fuel consumed for self-generation of cooling

0

(7.30.7.7) MWh fuel consumed for self- cogeneration or self-trigeneration

0

(7.30.7.8) Comment

In 2023, there was a 25% reduction in natural gas consumption, mainly due to the reduction in consumption in our recycled paper production operations. This is related to changes in the company's strategic planning.

Other non-renewable fuels (e.g. non-renewable hydrogen)

(7.30.7.1) Heating value

Select from:
☑ LHV

(7.30.7.2) Total fuel MWh consumed by the organization

150604.19

(7.30.7.4) MWh fuel consumed for self-generation of heat

0

(7.30.7.5) MWh fuel consumed for self-generation of steam

8632.39

(7.30.7.6) MWh fuel consumed for self-generation of cooling

0

(7.30.7.7) MWh fuel consumed for self- cogeneration or self-trigeneration

141972.8

(7.30.7.8) Comment

In 2023, there was a reduction in LPG consumption and an increase in diesel consumption, related to the start-up of the Puma 2 Project Phase II. Overall, the consumption of these non-renewable fuels represented an 18% reduction. This reinforces the company's commitment to having the majority of its energy matrix composed of renewable fuels.

Total fuel

(7.30.7.1) Heating value

Select from:

☑ LHV

(7.30.7.2) Total fuel MWh consumed by the organization

20919892.28

(7.30.7.4) MWh fuel consumed for self-generation of heat

0

(7.30.7.5) MWh fuel consumed for self-generation of steam

515268.05

(7.30.7.6) MWh fuel consumed for self-generation of cooling

0

(7.30.7.7) MWh fuel consumed for self- cogeneration or self-trigeneration

20404624.22

(7.30.7.8) Comment

The environmental and climate change management, the promotion and encouragement of energy efficiency are expressed in the document Climate Change Management Guidelines - Adaptation and Mitigation. At the Puma Unit, we count on the involvement of the employees, through the Internal Committee for Energy Conservation (CICE). From this committee, the professionals look for opportunities to reduce consumption of energy, steam, compressed air and eliminate waste. Klabin is also committed to energy production and to the progressive increase of the renewable energy matrix, produced from biomass and black liquor. Of the total electricity consumed, approximately 68% is self-generated and the rest, energy bought from the system, with 100% of the purchase coming from renewable sources. When we look at the amount of electricity generated by the company and the amount purchased, we have 82% of energy self-sufficiency capacity, i.e., the company has the capacity to generate almost all the energy it consumes. Energy efficiency is a constant pursuit in Klabin's environmental management, which is continually concerned with optimizing energy consumption in the industrial plants. The energy generated by Klabin has an energy matrix predominantly formed by renewable sources, corresponding to 92.6% of the total generated.
[Fixed row]

(7.30.9) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.

Electricity

(7.30.9.1) Total Gross generation (MWh)

3411786.9

(7.30.9.2) Generation that is consumed by the organization (MWh)

2920039.3

(7.30.9.3) Gross generation from renewable sources (MWh)

3411786.9

(7.30.9.4) Generation from renewable sources that is consumed by the organization (MWh)

2920039.3

Heat

(7.30.9.1) Total Gross generation (MWh)

52871.87

(7.30.9.2) Generation that is consumed by the organization (MWh)

52871.87

(7.30.9.3) Gross generation from renewable sources (MWh)

0

(7.30.9.4) Generation from renewable sources that is consumed by the organization (MWh)

0

Steam

(7.30.9.1) Total Gross generation (MWh)

20711069.51

(7.30.9.2) Generation that is consumed by the organization (MWh)

20711069.51

(7.30.9.3) Gross generation from renewable sources (MWh)

19227348.96

(7.30.9.4) Generation from renewable sources that is consumed by the organization (MWh)

19227348.96

Cooling

(7.30.9.1) Total Gross generation (MWh)

0

(7.30.9.2) Generation that is consumed by the organization (MWh)

0

(7.30.9.3) Gross generation from renewable sources (MWh)

0

(7.30.9.4) Generation from renewable sources that is consumed by the organization (MWh)

0
[Fixed row]

(7.30.14) Provide details on the electricity, heat, steam, and/or cooling amounts that were accounted for at a zero or near-zero emission factor in the market-based Scope 2 figure reported in 7.7.

Row 1

(7.30.14.1) Country/area

Select from:
☑ Brazil

(7.30.14.2) Sourcing method

Select from:
☑ Physical power purchase agreement (physical PPA) with a grid-connected generator

(7.30.14.3) Energy carrier

Select from:
☑ Electricity

(7.30.14.4) Low-carbon technology type

Select from:

☑ Hydropower (capacity unknown)

(7.30.14.5) Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

1178007.16

(7.30.14.6) Tracking instrument used

Select from:

☑ I-REC

(7.30.14.7) Country/area of origin (generation) of the low-carbon energy or energy attribute

Select from:

☑ Brazil

(7.30.14.8) Are you able to report the commissioning or re-powering year of the energy generation facility?

Select from:

☑ Yes

(7.30.14.9) Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

1978

(7.30.14.10) Comment

The Brazilian GHG Protocol Methodology considers hydroelectric energy with emission factor equal to zero. in 2017 Klabin began to record these emissions through the Market-based Approach. In this approach Klabin quantifies GHG emissions of scope 2 using the specific emission factor associated with each source of electricity generation that Klabin has chosen to acquire. In this year 2023, Klabin acquired 1,178,007.16 MWh, from hydroelectric generation, with iRECS of the generator. 100% of this energy is supplied by AES, whose power plant from which we purchase the IRECs started operating in 1978. This demonstrates Klabin's commitment to opt for the purchase of renewable energy, in accordance with its Sustainability Policy.

Row 2

(7.30.14.1) Country/area

Select from:

☑ Argentina

(7.30.14.2) Sourcing method

Select from:

☑ Physical power purchase agreement (physical PPA) with a grid-connected generator

(7.30.14.3) Energy carrier

Select from:

☑ Electricity

(7.30.14.4) Low-carbon technology type

Select from:

☑ Wind

(7.30.14.5) Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

1752.84

(7.30.14.6) Tracking instrument used

Select from:

☑ I-REC

(7.30.14.7) Country/area of origin (generation) of the low-carbon energy or energy attribute

Select from:

☑ Argentina

(7.30.14.8) Are you able to report the commissioning or re-powering year of the energy generation facility?

Select from:

☑ Yes

(7.30.14.9) Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

2020

(7.30.14.10) Comment

The Brazilian GHG Protocol Methodology considers hydroelectric energy with emission factor equal to zero. in 2017 Klabin began to record these emissions through the Market-based Approach. In this approach Klabin quantifies GHG emissions of scope 2 using the specific emission factor associated with each source of electricity generation that Klabin has chosen to acquire. In this year 2023, Klabin acquired 1,752.84 MWh, from wind generation, with iRECS of the generator for the Pilar unit, located in Argentina. 100% of this energy is supplied by AES, whose power plant from which we purchase the IRECs started operating in 2020. This demonstrates Klabin's commitment to opt for the purchase of renewable energy, in accordance with its Sustainability Policy.
[Add row]

(7.30.16) Provide a breakdown by country/area of your electricity/heat/steam/cooling consumption in the reporting year.

Argentina

(7.30.16.1) Consumption of purchased electricity (MWh)

1752.84

(7.30.16.2) Consumption of self-generated electricity (MWh)

0

(7.30.16.4) Consumption of purchased heat, steam, and cooling (MWh)

0

(7.30.16.5) Consumption of self-generated heat, steam, and cooling (MWh)

0

(7.30.16.6) Total electricity/heat/steam/cooling energy consumption (MWh)

1752.84

Austria

(7.30.16.1) Consumption of purchased electricity (MWh)

0

(7.30.16.2) Consumption of self-generated electricity (MWh)

0

(7.30.16.4) Consumption of purchased heat, steam, and cooling (MWh)

0

(7.30.16.5) Consumption of self-generated heat, steam, and cooling (MWh)

0

(7.30.16.6) Total electricity/heat/steam/cooling energy consumption (MWh)

0.00

Brazil

(7.30.16.1) Consumption of purchased electricity (MWh)

1178007.16

(7.30.16.2) Consumption of self-generated electricity (MWh)

2920039.3

(7.30.16.4) Consumption of purchased heat, steam, and cooling (MWh)

651609.59

(7.30.16.5) Consumption of self-generated heat, steam, and cooling (MWh)

20763941.38

(7.30.16.6) Total electricity/heat/steam/cooling energy consumption (MWh)

25513597.43
[Fixed row]

(7.45) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Row 1

(7.45.1) Intensity figure

141.659

(7.45.2) Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

725281

(7.45.3) Metric denominator

Select from:
☑ metric ton of product

(7.45.4) Metric denominator: Unit total

5119896.36

(7.45.5) Scope 2 figure used

Select from:

☑ Market-based

(7.45.6) % change from previous year

4.24

(7.45.7) Direction of change

Select from:

☑ Decreased

(7.45.8) Reasons for change

Select all that apply

☑ Change in renewable energy consumption

(7.45.9) Please explain

In 2023, we experienced a slight a 2.4% decrease in the company's gross production and a 6.9% reduction in the company's emissions. Since 2022, the energy consumed by the company has been sourced from hydroelectric and wind energy plants, with the corresponding iRECs from the supplier's sources. This shift has significantly increased the percentage of renewable energy purchases, reaching 100%. The significant reduction in scope 2 emissions due to the reporting of renewable energy purchases contributed to the important result for the year.
[Add row]

(7.52) Provide any additional climate-related metrics relevant to your business.

Row 1

(7.52.1) Description

Select from:

☑ Energy usage

(7.52.2) Metric value

17.19

(7.52.3) Metric numerator

GJ

(7.52.4) Metric denominator (intensity metric only)

ton

(7.52.5) % change from previous year

17.8

(7.52.6) Direction of change

Select from:

☑ Increased

(7.52.7) Please explain

There was a slight variation compared to the last report, mainly due to the commissioning and stabilization process of the company's new operations. For 2024, the company continues to monitor and work on process stability. Therefore, a reduction in this value is expected for future reports, considering the stabilization of operations and the achievement of full production capacity.

Row 2

(7.52.1) Description

Select from:

☑ Waste

(7.52.2) Metric value

99.3

(7.52.3) Metric numerator

%

(7.52.4) Metric denominator (intensity metric only)

Not applicable

(7.52.5) % change from previous year

0.88

(7.52.6) Direction of change

Select from:

☑ Increased

(7.52.7) Please explain

Klabin has a goal to achieve 100% reuse of waste by 2030, aiming to eliminate the disposal of solid waste in landfills. In 2023, we reused 99.3% of solid waste, a increase of 0.88% in relation to the index for 2022, motivated by the reduction in the amount of industrial waste disposed in landfills, mainly from the process of purifying shavings and residual waste from recycled paper industrial units. The Company has also implemented measures to increase the reuse/processing of waste such as dregs and sludge. The Lages Unit (Santa Catarina), which produces industrial bags, now uses sludge waste for composting and class 1 waste for co-processing. In February 2023, the Rio Verde Unit (Goiás) began to reuse, recycle, and/or co-process 100% of its industrial solid waste.
[Add row]

(7.53) Did you have an emissions target that was active in the reporting year?

Select all that apply

☑ Absolute target

☑ Intensity target

(7.53.1) Provide details of your absolute emissions targets and progress made against those targets.

Row 1

(7.53.1.1) Target reference number

Select from:

☑ Abs 1

(7.53.1.2) Is this a science-based target?

Select from:

☑ Yes, we consider this a science-based target, and the target is currently being reviewed by the Science Based Targets initiative

(7.53.1.4) Target ambition

Select from:

☑ 1.5°C aligned

(7.53.1.5) Date target was set

06/30/2023

(7.53.1.6) Target coverage

Select from:

☑ Organization-wide

(7.53.1.7) Greenhouse gases covered by target

Select all that apply

☑ Methane (CH4)

☑ Nitrous oxide (N2O)

☑ Carbon dioxide (CO2)

☑ Sulphur hexafluoride (SF6)

☑ Nitrogen trifluoride (NF3)

☑ Perfluorocarbons (PFCs)
☑ Hydrofluorocarbons (HFCs)

(7.53.1.8) Scopes

Select all that apply
☑ Scope 1
☑ Scope 2
☑ Scope 3

(7.53.1.9) Scope 2 accounting method

Select from:
☑ Market-based

(7.53.1.10) Scope 3 categories

Select all that apply
☑ Scope 3, Category 6 – Business travel
☑ Scope 3, Category 7 – Employee commuting
☑ Scope 3, Category 1 – Purchased goods and services
☑ Scope 3, Category 10 – Processing of sold products
☑ Scope 3, Category 5 – Waste generated in operations
☑ Scope 3, Category 12 – End-of-life treatment of sold products
☑ Scope 3, Category 4 – Upstream transportation and distribution
☑ Scope 3, Category 9 – Downstream transportation and distribution
☑ Scope 3, Category 3 – Fuel- and energy- related activities (not included in Scope 1 or 2)

(7.53.1.11) End date of base year

12/31/2022

(7.53.1.12) Base year Scope 1 emissions covered by target (metric tons CO2e)

773934.08

(7.53.1.13) Base year Scope 2 emissions covered by target (metric tons CO2e)

5025.43

(7.53.1.14) Base year Scope 3, Category 1: Purchased goods and services emissions covered by target (metric tons CO2e)

710355.19

(7.53.1.16) Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target (metric tons CO2e)

88607.43

(7.53.1.17) Base year Scope 3, Category 4: Upstream transportation and distribution emissions covered by target (metric tons CO2e)

74194.67

(7.53.1.18) Base year Scope 3, Category 5: Waste generated in operations emissions covered by target (metric tons CO2e)

587.47

(7.53.1.19) Base year Scope 3, Category 6: Business travel emissions covered by target (metric tons CO2e)

1897.06

(7.53.1.20) Base year Scope 3, Category 7: Employee commuting emissions covered by target (metric tons CO2e)

15694.43

(7.53.1.22) Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target (metric tons CO2e)

383603.83

(7.53.1.23) Base year Scope 3, Category 10: Processing of sold products emissions covered by target (metric tons CO2e)

2276239.53

(7.53.1.25) Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target (metric tons CO2e)

286955.33

(7.53.1.31) Base year total Scope 3 emissions covered by target (metric tons CO2e)

3838134.940

(7.53.1.32) Total base year emissions covered by target in all selected Scopes (metric tons CO2e)

4617094.450

(7.53.1.33) Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1

100

(7.53.1.34) Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2

100

(7.53.1.35) Base year Scope 3, Category 1: Purchased goods and services emissions covered by target as % of total base year emissions in Scope 3, Category 1: Purchased goods and services (metric tons CO2e)

100

(7.53.1.37) Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target as % of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)

100

(7.53.1.38) Base year Scope 3, Category 4: Upstream transportation and distribution covered by target as % of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e)

100

(7.53.1.39) Base year Scope 3, Category 5: Waste generated in operations emissions covered by target as % of total base year emissions in Scope 3, Category 5: Waste generated in operations (metric tons CO2e)

100

(7.53.1.40) Base year Scope 3, Category 6: Business travel emissions covered by target as % of total base year emissions in Scope 3, Category 6: Business travel (metric tons CO2e)

100

(7.53.1.41) Base year Scope 3, Category 7: Employee commuting covered by target as % of total base year emissions in Scope 3, Category 7: Employee commuting (metric tons CO2e)

100

(7.53.1.43) Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target as % of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e)

100

(7.53.1.44) Base year Scope 3, Category 10: Processing of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 10: Processing of sold products (metric tons CO2e)

100

(7.53.1.46) Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e)

100

(7.53.1.52) Base year total Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)

100

(7.53.1.53) Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes

100

(7.53.1.54) End date of target

12/31/2030

(7.53.1.55) Targeted reduction from base year (%)

42

(7.53.1.56) Total emissions at end date of target covered by target in all selected Scopes (metric tons CO2e)

2677914.781

(7.53.1.57) Scope 1 emissions in reporting year covered by target (metric tons CO2e)

720824.03

(7.53.1.58) Scope 2 emissions in reporting year covered by target (metric tons CO2e)

4456.97

(7.53.1.59) Scope 3, Category 1: Purchased goods and services emissions in reporting year covered by target (metric tons CO2e)

627412.66

(7.53.1.61) Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions in reporting year covered by target (metric tons CO2e)

81821

(7.53.1.62) Scope 3, Category 4: Upstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)

85848.61

(7.53.1.63) Scope 3, Category 5: Waste generated in operations emissions in reporting year covered by target (metric tons CO2e)

239.01

(7.53.1.64) Scope 3, Category 6: Business travel emissions in reporting year covered by target (metric tons CO2e)

1897.27

(7.53.1.65) Scope 3, Category 7: Employee commuting emissions in reporting year covered by target (metric tons CO2e)

17436.16

(7.53.1.67) Scope 3, Category 9: Downstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)

365897.63

(7.53.1.68) Scope 3, Category 10: Processing of sold products emissions in reporting year covered by target (metric tons CO2e)

1899436.87

(7.53.1.70) Scope 3, Category 12: End-of-life treatment of sold products emissions in reporting year covered by target (metric tons CO2e)

279816.19

(7.53.1.76) Total Scope 3 emissions in reporting year covered by target (metric tons CO2e)

3359805.400

(7.53.1.77) Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)

4085086.400

(7.53.1.78) Land-related emissions covered by target

Select from:

☑ Yes, it covers land-related emissions/removals associated with bioenergy and non-land related emissions (e.g. non-FLAG SBT with bioenergy)

(7.53.1.79) % of target achieved relative to base year

27.43

(7.53.1.80) Target status in reporting year

Select from:

☑ Underway

(7.53.1.82) Explain target coverage and identify any exclusions

In 2022, Klabin calculated two net-zero targets for the Science Based Target Initiative, and these targets are under review by SBTi. Klabin S.A commits to reduce absolute GHG emissions in scopes 1, 2, and 3 by 42% by 2030, based on a 2022 base year. Klabin S.A commits to reduce absolute GHG emissions in scopes 1, 2, and 3 by 90% by 2050, based on a 2022 base year. The targets are awaiting SBTi approval. The FLAG target has also been submitted. The target coverage is company-wide. Scopes 1, 2, and 3 are considered in the submitted targets. The sectoral methodology (SDA) was used to calculate the targets. The ambition of the submitted targets is aligned with 1.5ºC. Science-based targets provide companies with a clearly defined pathway to future-proof growth by specifying how much and how quickly they need to reduce their greenhouse gas emissions.

(7.53.1.83) Target objective

Klabin follows the Task Force recommendations on Climate-Related Financial Disclosure, being TCFD Supporter since 2020, aiming to improve the management of climate-related strategies, and cooperating with building a more transparent and resilient market. In addition to efforts to conserve biodiversity and ecosystems in its forest areas, Klabin was the first Brazilian company in the sector to commit to targets to reduce science-based greenhouse gas emissions (Science Based Targets – SBT). These actions result from a consolidated sustainability governance and an engaged top leadership that understands the company's importance in addressing climate change. As a main objective, Klabin aims to reduce its greenhouse gas emissions in line with established scientific targets, promoting a more sustainable operation aligned with global best practices. Additionally, the company seeks to ensure the resilience of its operations in the face of climate risks, contributing to building a more sustainable, low-carbon future while generating value for its stakeholders and reinforcing its commitment to environmental responsibility. The company also aims to be a reference in climate change management, and this commitment is a way to engage the value chain to adopt the same commitment. This goal of being a key driver of the issue and taking a prominent position is part of the company's strategy for market recognition and growth.

(7.53.1.84) Plan for achieving target, and progress made to the end of the reporting year

To achieve the targets set for emissions reduction, the company directs efforts on different fronts, such as energy efficiency and the replacement of fossil fuels by renewable ones. an example is the replacement of fuel oil with Syngas, a product Syngas, a product of the gasification of eucalyptus biomass, a renewable energy source. renewable energy source. The set of actions enabled Klabin to reduce CO2eq/t emissions by 69% between 2003 and 2023. In 2022, Klabin expanded its scope 3 analyses, with the new scenario of short and long-term targets, to be presented to SBTi in 2023, considering the scenario of limiting the temperature increase by 1.5C, as follows: 1.Reducing own emissions - Transformation of the light vehicle fleet to zero emissions, powered by renewable and/or electric energy; - Replacement of fossil fuel consumption with renewable fuels in operations; - Purchase of renewable electricity or renewable energy certificates (IRECs). 2. Value chain engagement - Improved data quality and engagement of relevant stakeholders through climate commitment; - Engagement of the value chain through the provision of training for suppliers and customers with a lower level of maturity in emissions and carbon management; - Development of climate transition plans together with relevant stakeholders. 3. Deep decarbonization - Replacement of freight transportation considering lower emission modalities, technologies and energy sources. - Investments to increase the recycling rate of paper packaging in Brazil. paper packaging in Brazil; - Net capture of 45 million tCO2 by 2030. Klabin also develops a value chain engagement system focused on its suppliers and customers. customers. The maturity of suppliers' emissions management is based on the performance of the carbon and GHG carbon and GHG emissions in the EcoVadis tool. The carbon offsetting and removal strategy will be carried out only for residual emissions (

(7.53.1.85) Target derived using a sectoral decarbonization approach

Select from:

☑ Yes

Row 2

(7.53.1.1) Target reference number

Select from:

☑ Abs 2

(7.53.1.2) Is this a science-based target?

Select from:

☑ Yes, we consider this a science-based target, and the target is currently being reviewed by the Science Based Targets initiative

(7.53.1.4) Target ambition

Select from:

☑ 1.5°C aligned

(7.53.1.5) Date target was set

06/30/2023

(7.53.1.6) Target coverage

Select from:

☑ Organization-wide

(7.53.1.7) Greenhouse gases covered by target

Select all that apply

☑ Methane (CH4)

☑ Nitrous oxide (N2O)

☑ Carbon dioxide (CO2)

☑ Perfluorocarbons (PFCs)

☑ Hydrofluorocarbons (HFCs)

☑ Sulphur hexafluoride (SF6)

☑ Nitrogen trifluoride (NF3)

(7.53.1.8) Scopes

Select all that apply

☑ Scope 1
☑ Scope 2
☑ Scope 3

(7.53.1.9) Scope 2 accounting method

Select from:
☑ Market-based

(7.53.1.10) Scope 3 categories

Select all that apply
☑ Scope 3, Category 6 – Business travel
☑ Scope 3, Category 7 – Employee commuting
☑ Scope 3, Category 1 – Purchased goods and services
☑ Scope 3, Category 10 – Processing of sold products
☑ Scope 3, Category 5 – Waste generated in operations
☑ Scope 3, Category 12 – End-of-life treatment of sold products
☑ Scope 3, Category 4 – Upstream transportation and distribution
☑ Scope 3, Category 9 – Downstream transportation and distribution
☑ Scope 3, Category 3 – Fuel- and energy- related activities (not included in Scope 1 or 2)

(7.53.1.11) End date of base year

12/31/2022

(7.53.1.12) Base year Scope 1 emissions covered by target (metric tons CO2e)

773934.08

(7.53.1.13) Base year Scope 2 emissions covered by target (metric tons CO2e)

5025.43

(7.53.1.14) Base year Scope 3, Category 1: Purchased goods and services emissions covered by target (metric tons CO2e)

710355.19

(7.53.1.16) Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target (metric tons CO2e)

88607.43

(7.53.1.17) Base year Scope 3, Category 4: Upstream transportation and distribution emissions covered by target (metric tons CO2e)

74194.67

(7.53.1.18) Base year Scope 3, Category 5: Waste generated in operations emissions covered by target (metric tons CO2e)

587.47

(7.53.1.19) Base year Scope 3, Category 6: Business travel emissions covered by target (metric tons CO2e)

1897.06

(7.53.1.20) Base year Scope 3, Category 7: Employee commuting emissions covered by target (metric tons CO2e)

15694.43

(7.53.1.22) Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target (metric tons CO2e)

383603.83

(7.53.1.23) Base year Scope 3, Category 10: Processing of sold products emissions covered by target (metric tons CO2e)

2276239.53

(7.53.1.25) Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target (metric tons CO2e)

286955.33

(7.53.1.31) Base year total Scope 3 emissions covered by target (metric tons CO2e)

3838134.940

(7.53.1.32) Total base year emissions covered by target in all selected Scopes (metric tons CO2e)

4617094.450

(7.53.1.33) Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1

100

(7.53.1.34) Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2

100

(7.53.1.35) Base year Scope 3, Category 1: Purchased goods and services emissions covered by target as % of total base year emissions in Scope 3, Category 1: Purchased goods and services (metric tons CO2e)

100

(7.53.1.37) Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target as % of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)

100

(7.53.1.38) Base year Scope 3, Category 4: Upstream transportation and distribution covered by target as % of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e)

100

(7.53.1.39) Base year Scope 3, Category 5: Waste generated in operations emissions covered by target as % of total base year emissions in Scope 3, Category 5: Waste generated in operations (metric tons CO2e)

100

(7.53.1.40) Base year Scope 3, Category 6: Business travel emissions covered by target as % of total base year emissions in Scope 3, Category 6: Business travel (metric tons CO2e)

100

(7.53.1.41) Base year Scope 3, Category 7: Employee commuting covered by target as % of total base year emissions in Scope 3, Category 7: Employee commuting (metric tons CO2e)

100

(7.53.1.43) Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target as % of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e)

100

(7.53.1.44) Base year Scope 3, Category 10: Processing of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 10: Processing of sold products (metric tons CO2e)

100

(7.53.1.46) Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e)

100

(7.53.1.52) Base year total Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)

100

(7.53.1.53) Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes

100

(7.53.1.54) End date of target

12/31/2050

(7.53.1.55) Targeted reduction from base year (%)

90

(7.53.1.56) Total emissions at end date of target covered by target in all selected Scopes (metric tons CO2e)

461709.445

(7.53.1.57) Scope 1 emissions in reporting year covered by target (metric tons CO2e)

720824.03

(7.53.1.58) Scope 2 emissions in reporting year covered by target (metric tons CO2e)

4456.97

(7.53.1.59) Scope 3, Category 1: Purchased goods and services emissions in reporting year covered by target (metric tons CO2e)

627412.66

(7.53.1.61) Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions in reporting year covered by target (metric tons CO2e)

81821

(7.53.1.62) Scope 3, Category 4: Upstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)

85848.61

(7.53.1.63) Scope 3, Category 5: Waste generated in operations emissions in reporting year covered by target (metric tons CO2e)

239.01

(7.53.1.64) Scope 3, Category 6: Business travel emissions in reporting year covered by target (metric tons CO2e)

1897.27

(7.53.1.65) Scope 3, Category 7: Employee commuting emissions in reporting year covered by target (metric tons CO2e)

17436.16

(7.53.1.67) Scope 3, Category 9: Downstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)

365897.63

(7.53.1.68) Scope 3, Category 10: Processing of sold products emissions in reporting year covered by target (metric tons CO2e)

1899436.87

(7.53.1.70) Scope 3, Category 12: End-of-life treatment of sold products emissions in reporting year covered by target (metric tons CO2e)

279816.19

(7.53.1.76) Total Scope 3 emissions in reporting year covered by target (metric tons CO2e)

3359805.400

(7.53.1.77) Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)

4085086.400

(7.53.1.78) Land-related emissions covered by target

Select from:

☑ Yes, it covers land-related emissions/removals associated with bioenergy and non-land related emissions (e.g. non-FLAG SBT with bioenergy)

(7.53.1.79) % of target achieved relative to base year

12.80

(7.53.1.80) Target status in reporting year

Select from:

☑ Underway

(7.53.1.82) Explain target coverage and identify any exclusions

In 2022, Klabin calculated two net-zero targets for the Science Based Target Initiative, and these targets are under review by SBTi. Klabin S.A commits to reduce absolute GHG emissions in scopes 1, 2, and 3 by 42% by 2030, based on a 2022 base year. Klabin S.A commits to reduce absolute GHG emissions in scopes 1, 2, and 3 by 90% by 2050, based on a 2022 base year. The targets are awaiting SBTi approval. The FLAG target has also been submitted. The target coverage is company-wide. Scopes 1, 2, and 3 are considered in the submitted targets. The sectoral methodology (SDA) was used to calculate the targets. The ambition of the submitted targets is aligned with 1.5ºC. Science-based targets provide companies with a clearly defined pathway to future-proof growth by specifying how much and how quickly they need to reduce their greenhouse gas emissions.

(7.53.1.83) Target objective

Klabin follows the Task Force recommendations on Climate-Related Financial Disclosure, being TCFD Supporter since 2020, aiming to improve the management of climate-related strategies, and cooperating with building a more transparent and resilient market. In addition to efforts to conserve biodiversity and ecosystems in its forest areas, Klabin was the first Brazilian company in the sector to commit to targets to reduce science-based greenhouse gas emissions (Science Based Targets – SBT). These actions result from a consolidated sustainability governance and an engaged top leadership that understands the company's importance in addressing climate change. As a main objective, Klabin aims to reduce its greenhouse gas emissions in line with established scientific targets, promoting a more sustainable operation aligned with global best practices. Additionally, the company seeks to ensure the resilience of its operations in the face of climate risks, contributing to building a more sustainable, low-carbon future while generating value for its stakeholders and reinforcing its commitment to environmental responsibility. The company also aims to be a reference in climate change management, and this commitment is a way to engage the value chain to adopt the same commitment. This goal of being a key driver of the issue and taking a prominent position is part of the company's strategy for market recognition and growth.

(7.53.1.84) Plan for achieving target, and progress made to the end of the reporting year

To achieve the targets set for emissions reduction, the company directs efforts on different fronts, such as energy efficiency and the replacement of fossil fuels by renewable ones. an example is the replacement of fuel oil with Syngas, a product Syngas, a product of the gasification of eucalyptus biomass, a renewable energy source. renewable energy source. The set of actions enabled Klabin to reduce CO2eq/t emissions by 69% between 2003 and 2023. In 2022, Klabin expanded its scope 3 analyses, with the new scenario of short and long-term targets, to be presented to SBTi in 2023, considering the scenario of limiting the temperature increase by 1.5C, as follows: 1.Reducing own emissions - Transformation of the light vehicle fleet to zero emissions, powered by renewable and/or electric energy; - Replacement of fossil fuel consumption with renewable fuels in operations; - Purchase of renewable electricity or renewable energy certificates (IRECs). 2. Value chain engagement - Improved data quality and engagement of relevant stakeholders through climate commitment; - Engagement of the value chain through the provision of training for suppliers and customers with a lower level of maturity in emissions and carbon management; - Development of climate transition plans together with relevant stakeholders. 3. Deep decarbonization - Replacement of freight transportation considering lower emission modalities, technologies and energy sources. - Investments to increase the recycling rate of paper packaging in Brazil. paper packaging in Brazil; - Net capture of 45 million tCO2 by 2030. Klabin also develops a value chain engagement system focused on its suppliers and customers. customers. The maturity of suppliers' emissions management is based on the performance of the carbon and GHG carbon and GHG emissions in the EcoVadis tool. The carbon offsetting and removal strategy will be carried out only for residual emissions (

(7.53.1.85) Target derived using a sectoral decarbonization approach

Select from:

☑ Yes

[Add row]

(7.53.2) Provide details of your emissions intensity targets and progress made against those targets.

Row 1

(7.53.2.1) Target reference number

Select from:

☑ Int 2

(7.53.2.2) Is this a science-based target?

Select from:

☑ Yes, and this target has been approved by the Science Based Targets initiative

(7.53.2.3) Science Based Targets initiative official validation letter

KLAB-BRA-001-OFF Report revised.pdf

(7.53.2.4) Target ambition

Select from:

☑ Well-below 2°C aligned

(7.53.2.5) Date target was set

01/01/2020

(7.53.2.6) Target coverage

Select from:

☑ Organization-wide

(7.53.2.7) Greenhouse gases covered by target

Select all that apply

☑ Methane (CH4)

☑ Nitrous oxide (N2O)

☑ Carbon dioxide (CO2)

☑ Perfluorocarbons (PFCs)

☑ Hydrofluorocarbons (HFCs)

☑ Nitrogen trifluoride (NF3)

☑ Sulphur hexafluoride (SF6)

(7.53.2.8) Scopes

Select all that apply

☑ Scope 1

☑ Scope 2

(7.53.2.9) Scope 2 accounting method

Select from:

☑ Market-based

(7.53.2.11) Intensity metric

Select from:

☑ Metric tons CO2e per metric ton of product

(7.53.2.12) End date of base year

12/31/2019

(7.53.2.13) Intensity figure in base year for Scope 1 (metric tons CO2e per unit of activity)

163.429

(7.53.2.14) Intensity figure in base year for Scope 2 (metric tons CO2e per unit of activity)

8.976

(7.53.2.33) Intensity figure in base year for all selected Scopes (metric tons CO2e per unit of activity)

172.4050000000

(7.53.2.34) % of total base year emissions in Scope 1 covered by this Scope 1 intensity figure

100

(7.53.2.35) % of total base year emissions in Scope 2 covered by this Scope 2 intensity figure

100

(7.53.2.54) % of total base year emissions in all selected Scopes covered by this intensity figure

100

(7.53.2.55) End date of target

12/31/2025

(7.53.2.56) Targeted reduction from base year (%)

25

(7.53.2.57) Intensity figure at end date of target for all selected Scopes (metric tons CO2e per unit of activity)

129.3037500000

(7.53.2.58) % change anticipated in absolute Scope 1+2 emissions

0

(7.53.2.60) Intensity figure in reporting year for Scope 1 (metric tons CO2e per unit of activity)

140.789

(7.53.2.61) Intensity figure in reporting year for Scope 2 (metric tons CO2e per unit of activity)

0.871

(7.53.2.80) Intensity figure in reporting year for all selected Scopes (metric tons CO2e per unit of activity)

141.6600000000

(7.53.2.81) Land-related emissions covered by target

Select from:

☑ Yes, it covers land-related and non-land related emissions (e.g. SBT approved before the release of FLAG target-setting guidance)

(7.53.2.82) % of target achieved relative to base year

71.33

(7.53.2.83) Target status in reporting year

Select from:

☑ Underway

(7.53.2.85) Explain target coverage and identify any exclusions

In December 2020, Klabin submitted two targets to the Science Based Target Initiative. In April 2021, SBT approved Klabin's science-based targets: - Klabin S.A commits to reduce scope 1 and 2 GHG emissions 25% per ton of pulp, paper and packaging by 2025 from a 2019 base year. - Klabin S.A commits to reduce scope 1 and 2 GHG emissions 49% per ton of pulp, paper and packaging by 2035 from a 2019 base year*. *The target boundary includes biogenic emissions and removals from bioenergy feedstocks. The targets coverage is company-wide. Scopes 1 and 2 are considered in the approved targets. The sectoral methodology (SDA) was used to calculate the targets. The ambition of the approved targets is well-below 2ºC aligned. With the linear advancement of the target, in 2022 the company should reach a 66,7% reduction in greenhouse gas emissions and thanks to the initiatives implemented in recent years, such as the Tall Oil plant in the Puma unit, the replacement of the biomass boiler in the Piracicaba unit, the biomass gasefication also in Puma and the consume of bio-oil in Correia Pinto lime kils, in addition to active efforts to reduce fuel oil consumption in the units, the company reached 71% of the target.*

(7.53.2.86) Target objective

Klabin follows the Task Force recommendations on Climate-Related Financial Disclosure, being TCFD Supporter since 2020, aiming to improve the management of climate-related strategies, and cooperating with building a more transparent and resilient market. In addition to efforts to conserve biodiversity and ecosystems in its forest areas, Klabin was the first Brazilian company in the sector to commit to targets to reduce science-based greenhouse gas emissions (Science Based Targets – SBT). These actions result from a consolidated sustainability governance and an engaged top leadership that understands the company's importance in addressing climate change. As a main objective, Klabin aims to reduce its greenhouse gas emissions in line with established scientific targets, promoting a more sustainable operation aligned with global best practices. Additionally, the company seeks to ensure the resilience of its operations in the face of climate risks, contributing to building a more sustainable, low-carbon future while generating value for its stakeholders and reinforcing its commitment to environmental responsibility. The company also aims to be a reference in climate change management, and this commitment is a way to engage the value chain to adopt the same commitment. This goal of being a key driver of the issue and taking a prominent position is part of the company's strategy for market recognition and growth.

(7.53.2.87) Plan for achieving target, and progress made to the end of the reporting year

Klabin prepares a MACC to identify and prioritize mitigation measures / low carbon technologies, as well as to stimulate business opportunities / cost reduction. A MAAC permits an easy-to-read visualization of various mitigation options or measures organized by a single, understandable metric: economic cost of emissions abatement. It is possible to assess/compare the (i) cost of regulation x (ii) the cost of investing in low carbon technology – BRL/tCO2 both. As the MACC presents the marginal cost of carbon, which facilitates the company in decisions such as investing in low carbon technologies or paying the fee or allowance. Serving as a basis for comparing the price of carbon when it is regulated in Brazil. Thus, by prioritizing technologies, Klabin has a pipeline of technologies that will be implemented in the short and medium term to achieve its carbon reduction target and take advantage of opportunities to increase resource efficiency. To improve internal carbon pricing analyzes, Klabin extended the study considering the impact of carbon pricing on the chain, especially in the purchase of inputs that may pass on the cost of carbon pricing. In 2019 the fuel oil boiler at the Feira de Santana unit was replaced by a natural gas boiler, in 2020 the Puma Tall Oil plant went into operation to replace the

burning of fuel oil in the lime kilns, also in 2020, the Piracicaba/SP unit completed the construction of the new biomass boiler at the unit, providing a reduction of more than 26,500 tCO2eq/year.The boiler started in 2021. In 2021, the Puma unit completed the biomass gasification project. This energy project is based on the use of biomass to generate gases that can be used as a source of temperature. These gases will be used in the lime kilns to replace the consumption of fuel oil. With the estabilization of this project, we will have a 67.45% reduction in GHG sources and more than a 2% increase in Klabin's energy matrix from renewable sources. Looking towards 2025, the company has successfully completed operational-scale testing of bio-oil combustion in lime kilns at the Monte Alegre unit in 2023. Three tests were conducted, and they were successful. This initiative will replace heavy oil entirely, leading to a reduction of 64,000 tons of CO2e per year. Additionally, the residual heavy oil in the boilers at the Puma 2 unit is being replaced.

(7.53.2.88) Target derived using a sectoral decarbonization approach

Select from:

☑ Yes

Row 2

(7.53.2.1) Target reference number

Select from:

☑ Int 1

(7.53.2.2) Is this a science-based target?

Select from:

☑ Yes, and this target has been approved by the Science Based Targets initiative

(7.53.2.3) Science Based Targets initiative official validation letter

KLAB-BRA-001-OFF Report revised.pdf

(7.53.2.4) Target ambition

Select from:

☑ Well-below 2°C aligned

(7.53.2.5) Date target was set

01/01/2020

(7.53.2.6) Target coverage

Select from:

☑ Organization-wide

(7.53.2.7) Greenhouse gases covered by target

Select all that apply

☑ Methane (CH4)

☑ Nitrous oxide (N2O)

☑ Carbon dioxide (CO2)

☑ Perfluorocarbons (PFCs)

☑ Hydrofluorocarbons (HFCs)

☑ Nitrogen trifluoride (NF3)

☑ Sulphur hexafluoride (SF6)

(7.53.2.8) Scopes

Select all that apply

☑ Scope 1

☑ Scope 2

(7.53.2.9) Scope 2 accounting method

Select from:

☑ Market-based

(7.53.2.11) Intensity metric

Select from:

☑ Metric tons CO2e per metric ton of product

(7.53.2.12) End date of base year

12/31/2019

(7.53.2.13) Intensity figure in base year for Scope 1 (metric tons CO2e per unit of activity)

163.429

(7.53.2.14) Intensity figure in base year for Scope 2 (metric tons CO2e per unit of activity)

8.976

(7.53.2.33) Intensity figure in base year for all selected Scopes (metric tons CO2e per unit of activity)

172.4050000000

(7.53.2.34) % of total base year emissions in Scope 1 covered by this Scope 1 intensity figure

100.0

(7.53.2.35) % of total base year emissions in Scope 2 covered by this Scope 2 intensity figure

100.0

(7.53.2.54) % of total base year emissions in all selected Scopes covered by this intensity figure

100.0

(7.53.2.55) End date of target

12/31/2035

(7.53.2.56) Targeted reduction from base year (%)

49

(7.53.2.57) Intensity figure at end date of target for all selected Scopes (metric tons CO2e per unit of activity)

87.9265500000

(7.53.2.58) % change anticipated in absolute Scope 1+2 emissions

0

(7.53.2.60) Intensity figure in reporting year for Scope 1 (metric tons CO2e per unit of activity)

140.789

(7.53.2.61) Intensity figure in reporting year for Scope 2 (metric tons CO2e per unit of activity)

0.871

(7.53.2.80) Intensity figure in reporting year for all selected Scopes (metric tons CO2e per unit of activity)

141.6600000000

(7.53.2.81) Land-related emissions covered by target

Select from:

☑ Yes, it covers land-related and non-land related emissions (e.g. SBT approved before the release of FLAG target-setting guidance)

(7.53.2.82) % of target achieved relative to base year

36.39

(7.53.2.83) Target status in reporting year

Select from:

☑ Underway

(7.53.2.85) Explain target coverage and identify any exclusions

In December 2020, Klabin submitted two targets to the Science Based Target Initiative. In April 2021, SBT approved Klabin's science-based targets: - Klabin S.A commits to reduce scope 1 and 2 GHG emissions 25% per ton of pulp, paper and packaging by 2025 from a 2019 base year. - Klabin S.A commits to reduce scope*

1 and 2 GHG emissions 49% per ton of pulp, paper and packaging by 2035 from a 2019 base year. *The target boundary includes biogenic emissions and removals from bioenergy feedstocks. The targets coverage is company-wide. Scopes 1 and 2 are considered in the approved targets. The sectoral methodology (SDA) was used to calculate the targets. The ambition of the approved targets is well-below 2ºC aligned.*

(7.53.2.86) Target objective

Klabin follows the Task Force recommendations on Climate-Related Financial Disclosure, being TCFD Supporter since 2020, aiming to improve the management of climate-related strategies, and cooperating with building a more transparent and resilient market. In addition to efforts to conserve biodiversity and ecosystems in its forest areas, Klabin was the first Brazilian company in the sector to commit to targets to reduce science-based greenhouse gas emissions (Science Based Targets – SBT). These actions result from a consolidated sustainability governance and an engaged top leadership that understands the company's importance in addressing climate change. As a main objective, Klabin aims to reduce its greenhouse gas emissions in line with established scientific targets, promoting a more sustainable operation aligned with global best practices. Additionally, the company seeks to ensure the resilience of its operations in the face of climate risks, contributing to building a more sustainable, low-carbon future while generating value for its stakeholders and reinforcing its commitment to environmental responsibility. The company also aims to be a reference in climate change management, and this commitment is a way to engage the value chain to adopt the same commitment. This goal of being a key driver of the issue and taking a prominent position is part of the company's strategy for market recognition and growth.

(7.53.2.87) Plan for achieving target, and progress made to the end of the reporting year

Klabin prepares a MACC to identify and prioritize mitigation measures / low carbon technologies, as well as to stimulate business opportunities / cost reduction. A MAAC permits an easy-to-read visualization of various mitigation options or measures organized by a single, understandable metric: economic cost of emissions abatement. It is possible to assess/compare the (i) cost of regulation x (ii) the cost of investing in low carbon technology – BRL/tCO2 both. As the MACC presents the marginal cost of carbon, which facilitates the company in decisions such as investing in low carbon technologies or paying the fee or allowance. Serving as a basis for comparing the price of carbon when it is regulated in Brazil. Thus, by prioritizing technologies, Klabin has a pipeline of technologies that will be implemented in the short and medium term to achieve its carbon reduction target and take advantage of opportunities to increase resource efficiency. To improve internal carbon pricing analyzes, Klabin extended the study considering the impact of carbon pricing on the chain, especially in the purchase of inputs that may pass on the cost of carbon pricing. In 2019 the fuel oil boiler at the Feira de Santana unit was replaced by a natural gas boiler, in 2020 the Puma Tall Oil plant went into operation to replace the burning of fuel oil in the lime kilns, also in 2020, the Piracicaba/SP unit completed the construction of the new biomass boiler at the unit, providing a reduction of more than 26,500 tCO2eq/year. The boiler started in 2021. In 2021, the Puma unit completed the biomass gasification project. This energy project is based on the use of biomass to generate gases that can be used as a source of temperature. These gases were used in the lime kilns to replace the consumption of fuel oil which resulted in approximately 56,000 tons of CO2e avoided during operations up to 2023. Looking at the horizon 2035, in addition to the substitution initiatives aimed at the reduction target of 2025, the company also foresees the exchange of the boiler with natural gas for biomass in Goiana and the surplus of fuel oil in the lime furnaces of the Puma unit for bio-oil.

(7.53.2.88) Target derived using a sectoral decarbonization approach

Select from:

☑ Yes

[Add row]

(7.54) Did you have any other climate-related targets that were active in the reporting year?

Select all that apply

☑ Net-zero targets

☑ Other climate-related targets

(7.54.2) Provide details of any other climate-related targets, including methane reduction targets.

Row 1

(7.54.2.1) Target reference number

Select from:

☑ Oth 2

(7.54.2.2) Date target was set

01/01/2016

(7.54.2.3) Target coverage

Select from:

☑ Organization-wide

(7.54.2.4) Target type: absolute or intensity

Select from:

☑ Absolute

(7.54.2.5) Target type: category & Metric (target numerator if reporting an intensity target)

Energy productivity

☑ Other, energy productivity, please specify **:**Percentage of energy purchased in relation to energy generated

(7.54.2.7) End date of base year

12/31/2016

(7.54.2.8) Figure or percentage in base year

70

(7.54.2.9) End date of target

12/31/2022

(7.54.2.10) Figure or percentage at end of date of target

76

(7.54.2.11) Figure or percentage in reporting year

82

(7.54.2.12) % of target achieved relative to base year

200.0000000000

(7.54.2.13) Target status in reporting year

Select from:
☑ Achieved

(7.54.2.15) Is this target part of an emissions target?

Reduce GHG emissions (scope 1 and 2) by 25% per ton of pulp, paperboard, and packaging by 2025, and by 49% by 2035, starting from base year 2019.

(7.54.2.16) Is this target part of an overarching initiative?

Select all that apply

☑ Science Based targets initiative - approved other

(7.54.2.17) Science Based Targets initiative official validation letter

KLAB-BRA-001-OFF Report revised.pdf

(7.54.2.18) Please explain target coverage and identify any exclusions

Klabin has thermo and hydroelectric energy generated in the company, which is distributed among the units, in addition, the Puma unit has energy generation capacity in addition to its consumption, making the surplus available in the National Interconnected System. The energy self-sufficiency target takes into account the amount of energy that is sold and the amount that is purchased.

(7.54.2.19) Target objective

Klabin aims to reduce its greenhouse gas emissions in line with established scientific targets, promoting a more sustainable operation aligned with global best practices. Additionally, the company seeks to ensure the resilience of its operations in the face of climate risks, contributing to building a more sustainable, low-carbon future while generating value for its stakeholders and reinforcing its commitment to environmental responsibility. The company also aims to be a reference in climate change management, and this commitment is a way to engage the value chain to adopt the same commitment. This goal of being a key driver of the issue and taking a prominent position is part of the company's strategy for market recognition and growth.

(7.54.2.21) List the actions which contributed most to achieving this target

With the stabilization of the industrial operations of the Puma Unit, inaugurated in 2016, Klabin registered evolution in the indicators related to energy. The unit was designed to be self-sufficient through the generation of energy from process residues, such as black liquor and biomass. As it produces more energy than it consumes, the company can make available the surplus for sale in the Brazilian Electric System, which contributes to the generation of revenue, while contributing to a cleaner energy matrix. In 2020, the goal was revised considering the percentage of energy generated in relation to the total energy consumed in the company. In 2023, Klabin mantained values of 82% of energy self-sufficiency, this target is related to SDG 7 - Affordable and Clean Energy and SDG 13 - Climate Action. Part of this result is the generation of energy from biomass, black liquor and hydraulic energy.

Row 2

(7.54.2.1) Target reference number

Select from:

☑ Oth 1

(7.54.2.2) Date target was set

01/01/2020

(7.54.2.3) Target coverage

Select from:

☑ Organization-wide

(7.54.2.4) Target type: absolute or intensity

Select from:

☑ Absolute

(7.54.2.5) Target type: category & Metric (target numerator if reporting an intensity target)

Renewable fuel consumption

☑ Percentage of total fuel consumption that is from renewable sources

(7.54.2.7) End date of base year

12/31/2019

(7.54.2.8) Figure or percentage in base year

89.5

(7.54.2.9) End date of target

12/31/2030

(7.54.2.10) Figure or percentage at end of date of target

92

(7.54.2.11) Figure or percentage in reporting year

92.6

(7.54.2.12) % of target achieved relative to base year

124.0000000000

(7.54.2.13) Target status in reporting year

Select from:

☑ Achieved and maintained

(7.54.2.15) Is this target part of an emissions target?

Reduce GHG emissions (scope 1 and 2) by 25% per ton of pulp, paperboard, and packaging by 2025, and by 49% by 2035, starting from base year 2019.

(7.54.2.16) Is this target part of an overarching initiative?

Select all that apply

☑ Science Based targets initiative - approved other

(7.54.2.17) Science Based Targets initiative official validation letter

KLAB-BRA-001-OFF Report revised.pdf

(7.54.2.18) Please explain target coverage and identify any exclusions

Klabin is continuously investing to increase the use of renewable sources in our energy matrix. In recent years, it has progressively replaced fuel oil with renewable fuels in its boilers and lime kilns, such as biomass, tall oil and bio-oil. In 2023, Klabin's energy matrix was 92.6%, with black liquor and biomass making the biggest contributions to the result.

(7.54.2.19) Target objective

Klabin aims to reduce its greenhouse gas emissions in line with established scientific targets, promoting a more sustainable operation aligned with global best practices. Additionally, the company seeks to ensure the resilience of its operations in the face of climate risks, contributing to building a more sustainable, low-carbon

future while generating value for its stakeholders and reinforcing its commitment to environmental responsibility. The company also aims to be a reference in climate change management, and this commitment is a way to engage the value chain to adopt the same commitment. This goal of being a key driver of the issue and taking a prominent position is part of the company's strategy for market recognition and growth.

(7.54.2.21) List the actions which contributed most to achieving this target

In 2023, we saw progress in the company's renewable energy matrix indicator, driven by a reduction in the consumption of non-renewable fuels, such as fuel oil in our pulp and paper units, as well as natural gas in our recycled paper production operations. The PUMA unit operated with a biomass gasification plant as fuel for one of its lime kilns throughout the year, contributing to a reduction in fuel oil consumption at the unit. This year also marked the beginning of tests for using bio-oil in the lime kilns at the Monte Alegre unit. In 2023, three industrial-scale tests were conducted, achieving 100% replacement of fuel oil during the operation of the equipment. Exceeding 100% of the long-term target indicates improvements in operational controls, which influenced the reduction in equipment downtimes and shutdowns, consequently lowering fuel consumption demands. This was achieved alongside the implementation of new expansion projects. The company is currently assessing its maturity to increase the ambition of the target, considering the temporary depletion of viable technologies, despite other more cost-effective initiatives that support the company's decarbonization path.
[Add row]

(7.54.3) Provide details of your net-zero target(s).

Row 1

(7.54.3.1) Target reference number

Select from:
☑ NZ1

(7.54.3.2) Date target was set

06/30/2023

(7.54.3.3) Target Coverage

Select from:
☑ Organization-wide

(7.54.3.4) Targets linked to this net zero target

Select all that apply

☑ Abs2

(7.54.3.5) End date of target for achieving net zero

12/31/2050

(7.54.3.6) Is this a science-based target?

Select from:

☑ Yes, we consider this a science-based target, and the target is currently being reviewed by the Science Based Targets initiative

(7.54.3.8) Scopes

Select all that apply

☑ Scope 1

☑ Scope 2

☑ Scope 3

(7.54.3.9) Greenhouse gases covered by target

Select all that apply

☑ Methane (CH4)

☑ Nitrous oxide (N2O)

☑ Carbon dioxide (CO2)

☑ Perfluorocarbons (PFCs)

☑ Hydrofluorocarbons (HFCs)

☑ Sulphur hexafluoride (SF6)

☑ Nitrogen trifluoride (NF3)

(7.54.3.10) Explain target coverage and identify any exclusions

In 2022, Klabin calculated two net-zero targets to the Science Based Target Initiative, these targets are under review by SBTi. - Klabin S.A commits to reduce scope 1, 2 and 3 GHG absolute emissions 42% by 2030 from a 2022 base year. - Klabin S.A commits to reduce scope 1, 2 and 3 GHG absolute emissions 90% by 2050 from a 2022 base year. The targets are awaiting SBTi approval, the FLAG target has not been submitted, the company is awaiting the release of the final version of the GHG Protocol Land Sector methodology. The targets coverage is company-wide. Scopes 1, 2 and 3 are considered in the subimitted targets and has no

exclusion. The sectoral methodology (SDA) was used to calculate the targets. The ambition of the submitted targets is 1.5ºC aligned. Science-based targets provide companies with a clearly defined pathway to future-proof growth by specifying how much and how quickly they need to reduce their greenhouse gas emissions.

(7.54.3.11) Target objective

Klabin follows the Task Force recommendations on Climate-Related Financial Disclosure, being TCFD Supporter since 2020, aiming to improve the management of climate-related strategies, and cooperating with building a more transparent and resilient market. In addition to efforts to conserve biodiversity and ecosystems in its forest areas, Klabin was the first Brazilian company in the sector to commit to targets to reduce science-based greenhouse gas emissions (Science Based Targets – SBT). These actions result from a consolidated sustainability governance and an engaged top leadership that understands the company's importance in addressing climate change. As a main objective, Klabin aims to reduce its greenhouse gas emissions in line with established scientific targets, promoting a more sustainable operation aligned with global best practices. Additionally, the company seeks to ensure the resilience of its operations in the face of climate risks, contributing to building a more sustainable, low-carbon future while generating value for its stakeholders and reinforcing its commitment to environmental responsibility. The company also aims to be a reference in climate change management, and this commitment is a way to engage the value chain to adopt the same commitment. This goal of being a key driver of the issue and taking a prominent position is part of the company's strategy for market recognition and growth.

(7.54.3.12) Do you intend to neutralize any residual emissions with permanent carbon removals at the end of the target?

Select from:

☑ Yes

(7.54.3.13) Do you plan to mitigate emissions beyond your value chain?

Select from:

☑ Yes, and we have already acted on this in the reporting year

(7.54.3.14) Do you intend to purchase and cancel carbon credits for neutralization and/or beyond value chain mitigation?

Select all that apply

☑ No, we do not plan to purchase and cancel carbon credits for neutralization and/or beyond value chain mitigation

(7.54.3.15) Planned milestones and/or near-term investments for neutralization at the end of the target

Klabin is a forest, pulp and paper company and we intend to removal CO2 of the atmosphere. The carbon offsetting and removal strategy will be carried out only for residual emissions (

(7.54.3.16) Describe the actions to mitigate emissions beyond your value chain

Klabin's Decarbonization Plan is divided into three major stages: reducing its own emissions, engaging the value chain, and deep decarbonization. The engagement involves not only improving data quality but also engaging key stakeholders through climate commitments. In 2023, Klabin sent a letter to its suppliers with significant emissions, urging them to improve their maturity level regarding climate change issues. For example, commitments could include creating a Greenhouse Gas Inventory for suppliers who do not yet have one and approving a GHG emissions reduction target in line with the Science Based Targets initiative (SBTi), covering scopes 1, 2, and 3 for companies already advanced in this area. Continuing with the Value Chain Engagement Plan, Klabin plans to provide training and capacity building for suppliers and customers with lower levels of maturity in emissions and carbon management. Additionally, the deep decarbonization stage includes replacing cargo transportation (road, rail, and sea) with modes, technologies, and energy sources that emit zero or the lowest possible emissions, thus involving the entire value chain in the search for low-carbon alternatives.

(7.54.3.17) Target status in reporting year

Select from:

☑ Underway

(7.54.3.19) Process for reviewing target

To ensure the continued relevance of this target and guarantee that we are on the right track, we can highlight a number of monitoring and review processes. Progress towards the emissions target is monitored on a monthly basis, allowing for a constant assessment of the behavior of emissions in relation to the target set. In addition, all the company's projects with potential impacts on emissions are monitored to ensure that the targets are consistent with our operations. Annual targets are set in line with our SBTi approved target, taking into account results, projections and the assessment of significant changes in the company's operations.
[Add row]

(7.55) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.

Select from:

☑ Yes

(7.55.1) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	*3*	*`Numeric input*
To be implemented	*1*	*16700*
Implementation commenced	*1*	*56579*
Implemented	*3*	*101742.94*
Not to be implemented	*0*	*`Numeric input*

[Fixed row]

(7.55.2) Provide details on the initiatives implemented in the reporting year in the table below.

Row 1

(7.55.2.1) Initiative category & Initiative type

Low-carbon energy consumption

☑ Biogas

(7.55.2.2) Estimated annual CO2e savings (metric tonnes CO2e)

56046.96

(7.55.2.3) Scope(s) or Scope 3 category(ies) where emissions savings occur

Select all that apply

☑ Scope 1

(7.55.2.4) Voluntary/Mandatory

Select from:

☑ Voluntary

(7.55.2.5) Annual monetary savings (unit currency – as specified in C0.4)

74000000

(7.55.2.6) Investment required (unit currency – as specified in C0.4)

1415000000

(7.55.2.7) Payback period

Select from:

☑ 4-10 years

(7.55.2.8) Estimated lifetime of the initiative

Select from:

☑ 16-20 years

(7.55.2.9) Comment

Biomass gasification at the Puma unit began operations in 2022, partially replacing the use of fuel oil in lime kilns. In 2023, the unit operated with the biomass gasification plant as fuel throughout the year. Thus, reducing the consumption of non-renewable fuels in the unit, reinforcing the company's commitment to maintain its energy matrix from renewable sources.

Row 2

(7.55.2.1) Initiative category & Initiative type

Low-carbon energy consumption

☑ Hydropower (capacity unknown)

(7.55.2.2) Estimated annual CO2e savings (metric tonnes CO2e)

45630.39

(7.55.2.3) Scope(s) or Scope 3 category(ies) where emissions savings occur

Select all that apply

☑ Scope 2 (market-based)

(7.55.2.4) Voluntary/Mandatory

Select from:

☑ Voluntary

(7.55.2.5) Annual monetary savings (unit currency – as specified in C0.4)

0

(7.55.2.6) Investment required (unit currency – as specified in C0.4)

0

(7.55.2.7) Payback period

Select from:

☑ No payback

(7.55.2.8) Estimated lifetime of the initiative

Select from:

☑ Ongoing

(7.55.2.9) Comment

On Indirect GHG emissions from energy acquisition - Scope 2, in 2017 Klabin began to record these emissions through the Market-based Approach. In this approach Klabin quantifies GHG emissions of scope 2 using the specific emission factor associated with each source of electricity generation that Klabin has chosen to acquire. In this year 2023, Klabin acquired 1,178,007.156 MWh, from hydroelectric generation for units located in Brazil, with IRECS. This results in a reduction of Scope 2 emissions in 45,630.39 tCO2e when compared to location-based, which uses the average emission factor of the SIN (National Interconnected System). This demonstrates Klabin's commitment to opt for the purchase of renewable energy, in accordance with the goals established in the 2030 Agenda, the acquisition of 100% of energy from renewable sources.

Row 3

(7.55.2.1) Initiative category & Initiative type

Low-carbon energy consumption

☑ Wind

(7.55.2.2) Estimated annual CO2e savings (metric tonnes CO2e)

66.55

(7.55.2.3) Scope(s) or Scope 3 category(ies) where emissions savings occur

Select all that apply

☑ Scope 2 (market-based)

(7.55.2.4) Voluntary/Mandatory

Select from:

☑ Voluntary

(7.55.2.5) Annual monetary savings (unit currency – as specified in C0.4)

0

(7.55.2.6) Investment required (unit currency – as specified in C0.4)

0

(7.55.2.7) Payback period

Select from:

☑ No payback

(7.55.2.8) Estimated lifetime of the initiative

Select from:

☑ Ongoing

(7.55.2.9) Comment

On Indirect GHG emissions from energy acquisition - Scope 2, in 2017 Klabin began to record these emissions through the Market-based Approach. In this approach Klabin quantifies GHG emissions of scope 2 using the specific emission factor associated with each source of electricity generation that Klabin has chosen to acquire. In this year 2023, Klabin acquired 1,752.840 MWh, from wind energy generation for Pilar unit, located in Argentina, with IRECS. This results in a reduction of Scope 2 emissions in 66.55 tCO2e when compared to location-based, which uses the average emission factor of the SIN (National Interconnected System). This demonstrates Klabin's commitment to opt for the purchase of renewable energy, in accordance with the goals established in the 2030 Agenda, the acquisition of 100% of energy from renewable sources.
[Add row]

(7.55.3) What methods do you use to drive investment in emissions reduction activities?

Row 1

(7.55.3.1) Method

Select from:

☑ Internal finance mechanisms

(7.55.3.2) Comment

All the projects elaborated undergo a flow of analysis and prioritization based on the Marginal Abatement Cost Curve (MACCs), which provide a method of evaluating potential emissions reduction activities. Providing a visual comparison of the marginal abatement costs for different projects. The starting point is to estimate how much it costs to control carbon emissions. MACC allows the identification of where the main opportunities for mitigating emissions lie, thus considering the relationship between the cost per ton of carbon avoided and the amount of tons that a reduction measure, if undertaken, will be able to avoid. MACC provides

individual access to measures, so that the costs and mitigation potential of emissions can be examined in isolation, and ranked according to their costs from lowest to highest, and thus assists in prioritizing projects.
[Add row]

(7.67) Do you implement agriculture or forest management practices on your own land with a climate change mitigation and/or adaptation benefit?

Select from:
☑ Yes

(7.67.1) Specify the agricultural or forest management practice(s) implemented on your own land with climate change mitigation and/or adaptation benefits and provide a corresponding emissions figure, if known.

Row 1

(7.67.1.1) Management practice reference number

Select from:
☑ MP1

(7.67.1.2) Management practice

Select from:
☑ Reforestation

(7.67.1.3) Description of management practice

Practices of adequacy, conservation and environmental preservation in rural properties and planted forests of Klabin. Klabin is pioneer on mosaic management based on "hidrosolidarity", ensuring the operational efficiency while preserves the water resources and biodiversity present in almost 316,644 hectares of native area (Atlantic Forest, predominantly). Hence, Klabin has created flows to guide forest management planning in order to comply with correct proportion of forestry activities and take in consideration each point of neighbour's water catchment. This management strategy are in accordance with the ecological services of water provisioning and regulating. First flow happens in the medium term of supply (5 year's harvest plan). In this horizon, the main point observed is the maintenance of mosaic on basins of third order. Micro-basin area must always have 40% of standing forest (both, native and planted), while 60% is available for forestry operations. In 2020, the company included this subject in the Klabin's sustainable development goals for 2030, which has the objective to expand this strategic/analyzis flow to São Paulo

Klabin's forest units in the next two years, in the Paraná unit this process had already been taking place since 2019. In 2021, the flow was applied in the Paraná forestry unit and in 2022 it was expanded to operations in Santa Catarina.

(7.67.1.4) Primary climate change-related benefit

Select from:

☑ Increase carbon sink (mitigation)

(7.67.1.5) Estimated CO2e savings (metric tons CO2e)

293145

(7.67.1.6) Please explain

*The greenhouse gas inventory calculation was based on the Brazilian GHG Protocol methodology Klabin reserves 43% of its land for preserved native forests and maintains its own areas with planted forests for the manufacture of its products. Klabin was the first pulp and paper company in the Southern Hemisphere to obtain, in 1998, the Forest Stewardship Council-FSC certification (FSC-C022516) which attests to management practices that conserve natural resources, provide fair working conditions and encourage healthy relations with local communities. Matas Legais - Developed in partnership with the Association of Preservation of Environment and Life (Apremavi), it promotes actions of rural property planning, conservation and environmental education in the states of Paraná and Santa Catarina. It guides small and medium-sized owners to perform more efficiently and with greater profitability, in addition to preserving ecosystems. Producers take courses, lectures and exchange visits and receive free seedlings of native plants. The program also encourages forestry with planted pine and eucalyptus forests, organic agriculture and ecotourism. During the 18 years of program (2005 - 2023) more than 1,8 MM native seedlings have already been distributed among 1,421 property owners; a total of 57,551 hectares of PPAs and LRs were demarcated to preservation, conservation and restoration. Using as base the value of 10.85 tCO2eq / ha calculated according to the CO2 sequestration of the native forests in relation to a total area that a Klabin has (Brazilian GHG Protocol Metodology used): 57,551 ha * 10.85 tCO2 / ha 624,428.35 tCO2eq. This amount of CO2 is also contemplated in the CO2 removal calculation for land use management.*
[Add row]

(7.68) Do you encourage your suppliers to undertake any agricultural or forest management practices with climate change mitigation and/or adaptation benefits?

Select from:

☑ Yes

(7.68.1) Specify which agricultural or forest management practices with climate change mitigation and/or adaptation benefits you encourage your suppliers to undertake and describe your role in the implementation of each practice.

Row 1

(7.68.1.1) Management practice reference number

Select from:

☑ MP1

(7.68.1.2) Management practice

Select from:

☑ Reforestation

(7.68.1.3) Description of management practice

We develop practices of adequacy, conservation and environmental preservation in rural properties.

(7.68.1.4) Your role in the implementation

Select all that apply

☑ Financial

☑ Knowledge sharing

☑ Operational

☑ Procurement

(7.68.1.5) Explanation of how you encourage implementation

Klabin adopts programs and plays the role of its suppliers and its region owners in order to improve the conditions of its stakeholders, as well as to comply with environmental laws, the preservation and management of companies and plantations. The main programs are: Matas Legais - Developed in partnership with the Association of Preservation of Environment and Life (Apremavi), it promotes actions of rural property planning, conservation and environmental education in the states of Paraná and Santa Catarina. It guides small and medium-sized owners to perform more efficiently and with greater profitability, in addition to preserving ecosystems. Producers take courses, lectures and exchange visits and receive free seedlings of native plants. The program also encourages forestry with planted pine and eucalyptus forests, organic agriculture and ecotourism. Plante com a Klabin [Forest Development] - economic, social and environmental development by promoting the planting of pine and eucalyptus in idle areas of rural properties. In addition to the seedlings, Klabin provides the necessary guidance for correct land management. The process assists in the establishment of rural populations, promotes plant recovery and stimulates regional development. Planning for Sustainable Properties (Matas Sociais) - This program has been developed since August 2015 in partnership with APREMAVI, TNC and SEBRAE, to promote the economic,

environmental and social strengthening of small and medium-sized rural properties. It develops actions that assist the producer in the environmental, legal and landscape adaptation of the property, in the planning and diversification of the production, strengthening initiatives of association and cooperativism, and facilitating the access to the new opportunities of market and regional development.

(7.68.1.6) Climate change related benefit

Select all that apply

☑ Emissions reductions (mitigation)

☑ Increase carbon sink (mitigation)

(7.68.1.7) Comment

In 2023 Matas legais program served 1,339 properties; 151,485 seedlings donated; 24,243 ha of demarcated areas of preservation. Its is also important to mention that this program reduced greenhouse gas emissions in 293,037 tCO2eq using as base the value of 10.85 tCO2eq / ha calculated according to the CO2 sequestration of the native forests in relation to a total area that a Klabin has (Brazilian GHG Protocol Metodology used). By 2020 to 2022, 115 partnerships were signed and 8.54 thousand hectares were negotiated in Paraná and Santa Catarina states. In 2023, "Plante with Klabin", the company's new forest partnership program, signed 26 contracts, covering an area of approximately 1,797 ha. Planning Sustainable Properties (Matas Sociais) - Serves 681 rural properties, covering about 2,682 hectares of demarcated native forest.
[Add row]

(7.68.2) Do you collect information from your suppliers about the outcomes of any implemented agricultural/forest management practices you have encouraged?

Select from:

☑ Yes

(7.69) Do you know if any of the management practices implemented on your own land disclosed in 7.67.1 have other impacts besides climate change mitigation/adaptation?

Select from:

☑ Yes

(7.69.1) Provide details on those management practices that have other impacts besides climate change mitigation/adaptation and on your management response.

Row 1

(7.69.1.1) Management practice reference number

Select from:

☑ MP1

(7.69.1.2) Overall effect

Select from:

☑ Positive

(7.69.1.3) Which of the following has been impacted?

Select all that apply

☑ Biodiversity

☑ Soil

☑ Water

☑ Yield

(7.69.1.4) Description of impact

Klabin adopts programs and plays the role of its suppliers and its region owners in order to improve the conditions of its stakeholders, as well as to comply with environmental laws, the preservation and management of companies and plantations. The main programs are: Matas Legais - Developed in partnership with the Association of Preservation of Environment and Life (Apremavi), it promotes actions of rural property planning, conservation and environmental education in the states of Paraná and Santa Catarina. It guides small and medium-sized owners to perform more efficiently and with greater profitability, in addition to preserving ecosystems. Producers take courses, lectures and exchange visits and receive free seedlings of native plants. The program also encourages forestry with planted pine and eucalyptus forests, organic agriculture and ecotourism. 'Plante com a Klabin', Programa de Fomento Florestal [Forest Development] - economic, social and environmental development by promoting the planting of pine and eucalyptus in idle areas of rural properties. In addition to the seedlings, Klabin provides the necessary guidance for correct land management. The process assists in the establishment of rural populations, promotes plant recovery and stimulates regional development. Planning for Sustainable Properties (Matas Sociais) - This program has been developed since August 2015 in partnership with APREMAVI, TNC and SEBRAE, to promote the economic, environmental and social strengthening of small and medium-sized rural properties. It develops actions that assist the producer in the environmental, legal and landscape adaptation of the property, in the planning and diversification of the production, strengthening initiatives of association and cooperativism, and facilitating the access to the new opportunities of market and regional development.

(7.69.1.5) Have you implemented any response to these impacts?

Select from:

☑ Yes

(7.69.1.6) Description of the response

In 2023 Matas legais program served 1,339 properties; 151,485 seedlings donated; 24,243 ha of demarcated areas of preservation. Its is also important to mention that this program reduced greenhouse gas emissions in 293,037 tCO2eq using as base the value of 10.85 tCO2eq / ha calculated according to the CO2 sequestration of the native forests in relation to a total area that a Klabin has (Brazilian GHG Protocol Metodology used). By 2020 to 2022, 115 partnerships were signed and 8.54 thousand hectares were negotiated in Paraná and Santa Catarina states. In 2023, "Plante with Klabin", the company's new forest partnership program, signed 26 contracts, covering an area of approximately 1,797 ha. All "Plant with Klabin" partners receive the benefit to join in other two Klabin's initiatives: Legal Forest and Forest Suppliers Certification programs. The first one aims to help partners to adequate their properties in accordance with Brazilian Forest Code; and the second program goal is to assist partners to obtain FSC certification for their forest management. Planning Sustainable Properties (Matas Sociais) - Serves 681 rural properties, covering about 2,682 hectares of demarcated native forest.
[Add row]

(7.70) Do you know if any of the management practices mentioned in 7.68.1 that were implemented by your suppliers have other impacts besides climate change mitigation/adaptation?

Select from:

☑ Yes

(7.70.1) Provide details of those management practices implemented by your suppliers that have other impacts besides climate change mitigation/adaptation.

Row 1

(7.70.1.1) Management practice reference number

Select from:

☑ MP1

(7.70.1.2) Overall effect

Select from:

☑ Positive

(7.70.1.3) Which of the following has been impacted?

Select all that apply

☑ Biodiversity

☑ Soil

☑ Water

☑ Yield

(7.70.1.4) Description of impacts

Klabin adopts programs and plays the role of its suppliers and its region owners in order to improve the conditions of its stakeholders, as well as to comply with environmental laws, the preservation and management of companies and plantations. The main programs are: Matas Legais - Developed in partnership with the Association of Preservation of Environment and Life (Apremavi), it promotes actions of rural property planning, conservation and environmental education in the states of Paraná and Santa Catarina. It guides small and medium-sized owners to perform more efficiently and with greater profitability, in addition to preserving ecosystems. Producers take courses, lectures and exchange visits and receive free seedlings of native plants. The program also encourages forestry with planted pine and eucalyptus forests, organic agriculture and ecotourism. 'Plante com a Klabin', Programa de Fomento Florestal [Forest Development] - economic, social and environmental development by promoting the planting of pine and eucalyptus in idle areas of rural properties. In addition to the seedlings, Klabin provides the necessary guidance for correct land management. The process assists in the establishment of rural populations, promotes plant recovery and stimulates regional development. Planning for Sustainable Properties (Matas Sociais) - This program has been developed since August 2015 in partnership with APREMAVI, TNC and SEBRAE, to promote the economic, environmental and social strengthening of small and medium-sized rural properties. It develops actions that assist the producer in the environmental, legal and landscape adaptation of the property, in the planning and diversification of the production, strengthening initiatives of association and cooperativism, and facilitating the access to the new opportunities of market and regional development.

(7.70.1.5) Have any response to these impacts been implemented?

Select from:

☑ Yes

(7.70.1.6) Description of the response(s)

In 2023 Matas legais program served 1,339 properties; 151,485 seedlings donated; 24,243 ha of demarcated areas of preservation. Its is also important to mention that this program reduced greenhouse gas emissions in 293,037 tCO2eq using as base the value of 10.85 tCO2eq / ha calculated according to the CO2 sequestration of the native forests in relation to a total area that a Klabin has (Brazilian GHG Protocol Metodology used). By 2020 to 2022, 115 partnerships were

signed and 8.54 thousand hectares were negotiated in Paraná and Santa Catarina states. In 2023, "Plante with Klabin", the company's new forest partnership program, signed 26 contracts, covering an area of approximately 1,797 ha. All "Plant with Klabin" partners receive the benefit to join in other two Klabin's initiatives: Legal Forest and Forest Suppliers Certification programs. The first one aims to help partners to adequate their properties in accordance with Brazilian Forest Code; and the second program goal is to assist partners to obtain FSC certification for their forest management. Planning Sustainable Properties (Matas Sociais) - Serves 681 rural properties, covering about 2,682 hectares of demarcated native forest.
[Add row]

(7.73) Are you providing product level data for your organization’s goods or services?

Select from:
☑ Yes, I will provide data through the CDP questionnaire

(7.73.1) Give the overall percentage of total emissions, for all Scopes, that are covered by these products.

100

(7.73.2) Complete the following table for the goods/services for which you want to provide data.

Row 1

(7.73.2.1) Requesting member

Select from:

(7.73.2.2) Name of good/ service

Corrugated cardboard box - Goiana

(7.73.2.3) Description of good/ service

Corrugated cardboard box - Goiana (Scope 1 2 emissions)

(7.73.2.4) Type of product

Select from:

☑ Final

(7.73.2.5) Unique product identifier

tonnes

(7.73.2.6) Total emissions in kg CO2e per unit

152.98

(7.73.2.7) ±% change from previous figure supplied

0

(7.73.2.8) Date of previous figure supplied

12/31/2023

(7.73.2.9) Explanation of change

This is the specific CO2 emission (kgCO2e/ton of product) for the unit's products. The emissions correspond to scope 1, using the Brazilian GHG methodology. This allocation result is based on the specific CO2e emission for each ton of product supplied to the client in 2023. Emissions come mainly from the stationary combustion category for energy generation and the mobile combustion category related to the transportation of raw materials and the use of light vehicles for commuting. It may contain other emissions related to the other scope 1 categories (fugitive emissions, industrial processes, among others). The GHG Protocol is a tool used to understand, quantify and manage GHG emissions. is now the most widely used method worldwide by companies and governments to conduct GHG inventories. It is also compatible with ISO 14.064 and the methods of quantification of the Intergovernmental Panel on Climate Change (IPCC). This inventory of greenhouse gases is verified and audited by third parties (scopes 1, 2 and 3), attesting the veracity of the data and publicly reported results. Klabin conducts its inventory of greenhouse gases and reports this information publicly since 2010. As the program is already consolidated within the organization there are no limitations to the inventory, since all the data generated internally are available for elaboration of the inventory. When we look at the emissions history of Klabin's total GHG inventory, there was a 69% reduction in Scope 12 emissions per ton of product produced between 2004 and 2023. This reflects Klabin's commitment to increasingly seeking sustainable business alternatives, in line with the UN Sustainable Development Goals and the Klabin Objectives for Sustainable Development (KODS), which guide the company's strategic planning towards a renewable future.

(7.73.2.10) Methods used to estimate lifecycle emissions

Select from:

☑ ISO 14040 & 14044

Row 2

(7.73.2.1) Requesting member

Select from:

(7.73.2.2) Name of good/ service

Corrugated cardboard box - Itajaí

(7.73.2.3) Description of good/ service

Corrugated cardboard box - Itajaí (Scope 1 2 emissions)

(7.73.2.4) Type of product

Select from:
☑ Final

(7.73.2.5) Unique product identifier

tonnes

(7.73.2.6) Total emissions in kg CO2e per unit

64.28

(7.73.2.7) ±% change from previous figure supplied

0

(7.73.2.8) Date of previous figure supplied

12/31/2023

(7.73.2.9) Explanation of change

This is the specific CO2 emission (kgCO2e/ton of product) for the unit's products. The emissions correspond to scope 1, using the Brazilian GHG methodology. This allocation result is based on the specific CO2e emission for each ton of product supplied to the client in 2023. Emissions come mainly from the stationary combustion category for energy generation and the mobile combustion category related to the transportation of raw materials and the use of light vehicles for commuting. It may contain other emissions related to the other scope 1 categories (fugitive emissions, industrial processes, among others). The GHG Protocol is a tool used to understand, quantify and manage GHG emissions. is now the most widely used method worldwide by companies and governments to conduct GHG inventories. It is also compatible with ISO 14.064 and the methods of quantification of the Intergovernmental Panel on Climate Change (IPCC). This inventory of greenhouse gases is verified and audited by third parties (scopes 1, 2 and 3), attesting the veracity of the data and publicly reported results. Klabin conducts its inventory of greenhouse gases and reports this information publicly since 2010. As the program is already consolidated within the organization there are no limitations to the inventory, since all the data generated internally are available for elaboration of the inventory. When we look at the emissions history of Klabin's total GHG inventory, there was a 69% reduction in Scope 12 emissions per ton of product produced between 2004 and 2023. This reflects Klabin's commitment to increasingly seeking sustainable business alternatives, in line with the UN Sustainable Development Goals and the Klabin Objectives for Sustainable Development (KODS), which guide the company's strategic planning towards a renewable future.

(7.73.2.10) Methods used to estimate lifecycle emissions

Select from:

☑ ISO 14040 & 14044

Row 3

(7.73.2.1) Requesting member

Select from:

(7.73.2.2) Name of good/ service

Liquid Package Board (LPB)

(7.73.2.3) Description of good/ service

Liquid Package Board (LPB) (Scope 1 2 emissions)

(7.73.2.4) Type of product

Select from:

☑ Intermediate

(7.73.2.5) Unique product identifier

tonnes

(7.73.2.6) Total emissions in kg CO2e per unit

272.19

(7.73.2.7) ±% change from previous figure supplied

0

(7.73.2.8) Date of previous figure supplied

12/31/2023

(7.73.2.9) Explanation of change

This is the specific CO2 emission (kgCO2e/ton of product) for the unit's products. The emissions correspond to scope 1, using the Brazilian GHG methodology. This allocation result is based on the specific CO2e emission for each ton of product supplied to the client in 2023. Emissions come mainly from the stationary combustion category for energy generation and the mobile combustion category related to the transportation of raw materials and the use of light vehicles for commuting. It may contain other emissions related to the other scope 1 categories (fugitive emissions, industrial processes, among others). The GHG Protocol is a tool used to understand, quantify and manage GHG emissions. is now the most widely used method worldwide by companies and governments to conduct GHG inventories. It is also compatible with ISO 14.064 and the methods of quantification of the Intergovernmental Panel on Climate Change (IPCC). This inventory of greenhouse gases is verified and audited by third parties (scopes 1, 2 and 3), attesting the veracity of the data and publicly reported results. Klabin conducts its inventory of greenhouse gases and reports this information publicly since 2010. As the program is already consolidated within the organization there are no limitations to the inventory, since all the data generated internally are available for elaboration of the inventory. When we look at the emissions history of Klabin's total GHG inventory, there was a 69% reduction in Scope 12 emissions per ton of product produced between 2004 and 2023. This reflects Klabin's commitment to increasingly seeking sustainable business alternatives, in line with the UN Sustainable Development Goals and the Klabin Objectives for Sustainable Development (KODS), which guide the company's strategic planning towards a renewable future.

(7.73.2.10) Methods used to estimate lifecycle emissions

Select from:

☑ ISO 14040 & 14044

Row 4

(7.73.2.1) Requesting member

Select from:

(7.73.2.2) Name of good/ service

Corrugated cardboard box - Betim

(7.73.2.3) Description of good/ service

Corrugated cardboard box - Betim (Scope 1 2 emissions)

(7.73.2.4) Type of product

Select from:

☑ Final

(7.73.2.5) Unique product identifier

tonnes

(7.73.2.6) Total emissions in kg CO2e per unit

92.5

(7.73.2.7) ±% change from previous figure supplied

0

(7.73.2.8) Date of previous figure supplied

12/31/2023

(7.73.2.9) Explanation of change

This is the specific CO2 emission (kgCO2e/ton of product) for the unit's products. The emissions correspond to scope 1, using the Brazilian GHG methodology. This allocation result is based on the specific CO2e emission for each ton of product supplied to the client in 2023. Emissions come mainly from the stationary combustion category for energy generation and the mobile combustion category related to the transportation of raw materials and the use of light vehicles for commuting. It may contain other emissions related to the other scope 1 categories (fugitive emissions, industrial processes, among others). The GHG Protocol is a tool used to understand, quantify and manage GHG emissions. is now the most widely used method worldwide by companies and governments to conduct GHG inventories. It is also compatible with ISO 14.064 and the methods of quantification of the Intergovernmental Panel on Climate Change (IPCC). This inventory of greenhouse gases is verified and audited by third parties (scopes 1, 2 and 3), attesting the veracity of the data and publicly reported results. Klabin conducts its inventory of greenhouse gases and reports this information publicly since 2010. As the program is already consolidated within the organization there are no limitations to the inventory, since all the data generated internally are available for elaboration of the inventory. When we look at the emissions history of Klabin's total GHG inventory, there was a 69% reduction in Scope 12 emissions per ton of product produced between 2004 and 2023. This reflects Klabin's commitment to increasingly seeking sustainable business alternatives, in line with the UN Sustainable Development Goals and the Klabin Objectives for Sustainable Development (KODS), which guide the company's strategic planning towards a renewable future.

(7.73.2.10) Methods used to estimate lifecycle emissions

Select from:

☑ ISO 14040 & 14044

Row 5

(7.73.2.1) Requesting member

Select from:

(7.73.2.2) Name of good/ service

Corrugated cardboard box - Manaus

(7.73.2.3) Description of good/ service

Corrugated cardboard box - Manaus (Scope 1 2 emissions)

(7.73.2.4) Type of product

Select from:

☑ Final

(7.73.2.5) Unique product identifier

tonnes

(7.73.2.6) Total emissions in kg CO2e per unit

89.46

(7.73.2.7) ±% change from previous figure supplied

0

(7.73.2.8) Date of previous figure supplied

12/31/2023

(7.73.2.9) Explanation of change

This is the specific CO2 emission (kgCO2e/ton of product) for the unit's products. The emissions correspond to scope 1, using the Brazilian GHG methodology. This allocation result is based on the specific CO2e emission for each ton of product supplied to the client in 2023. Emissions come mainly from the stationary combustion category for energy generation and the mobile combustion category related to the transportation of raw materials and the use of light vehicles for commuting. It may contain other emissions related to the other scope 1 categories (fugitive emissions, industrial processes, among others). The GHG Protocol is a tool used to understand, quantify and manage GHG emissions. is now the most widely used method worldwide by companies and governments to conduct GHG inventories. It is also compatible with ISO 14.064 and the methods of quantification of the Intergovernmental Panel on Climate Change (IPCC). This inventory of greenhouse gases is verified and audited by third parties (scopes 1, 2 and 3), attesting the veracity of the data and publicly reported results. Klabin conducts its inventory of greenhouse gases and reports this information publicly since 2010. As the program is already consolidated within the organization there are no limitations to the inventory, since all the data generated internally are available for elaboration of the inventory. When we look at the emissions history of Klabin's total GHG inventory, there was a 69% reduction in Scope 12 emissions per ton of product produced between 2004 and 2023. This reflects Klabin's commitment to increasingly seeking sustainable business alternatives, in line with the UN Sustainable Development Goals and the Klabin Objectives for Sustainable Development (KODS), which guide the company's strategic planning towards a renewable future.

(7.73.2.10) Methods used to estimate lifecycle emissions

Select from:

☑ ISO 14040 & 14044

Row 6

(7.73.2.1) Requesting member

Select from:

(7.73.2.2) Name of good/ service

Corrugated cardboard box

(7.73.2.3) Description of good/ service

Corrugated cardboard box

(7.73.2.4) Type of product

Select from:

☑ Intermediate

(7.73.2.5) Unique product identifier

tonnes

(7.73.2.6) Total emissions in kg CO2e per unit

0

(7.73.2.7) ±% change from previous figure supplied

0

(7.73.2.8) Date of previous figure supplied

12/31/2023

(7.73.2.9) Explanation of change

The company did not acquire Klabin products in 2023

(7.73.2.10) Methods used to estimate lifecycle emissions

Select from:

☑ ISO 14040 & 14044

Row 7

(7.73.2.1) Requesting member

Select from:

(7.73.2.2) Name of good/ service

Pinefluff

(7.73.2.3) Description of good/ service

Pinefluff (Scope 1 2 emissions)

(7.73.2.4) Type of product

Select from:

☑ Intermediate

(7.73.2.5) Unique product identifier

tonnes

(7.73.2.6) Total emissions in kg CO2e per unit

144.82

(7.73.2.7) ±% change from previous figure supplied

0

(7.73.2.8) Date of previous figure supplied

12/31/2023

(7.73.2.9) Explanation of change

This is the specific CO2 emission (kgCO2e/ton of product) for the unit's products. The emissions correspond to scope 1, using the Brazilian GHG methodology. This allocation result is based on the specific CO2e emission for each ton of product supplied to the client in 2023. Emissions come mainly from the stationary combustion category for energy generation and the mobile combustion category related to the transportation of raw materials and the use of light vehicles for commuting. It may contain other emissions related to the other scope 1 categories (fugitive emissions, industrial processes, among others). The GHG Protocol is a tool used to understand, quantify and manage GHG emissions. is now the most widely used method worldwide by companies and governments to conduct GHG inventories. It is also compatible with ISO 14.064 and the methods of quantification of the Intergovernmental Panel on Climate Change (IPCC). This inventory of greenhouse gases is verified and audited by third parties (scopes 1, 2 and 3), attesting the veracity of the data and publicly reported results. Klabin conducts its inventory of greenhouse gases and reports this information publicly since 2010. As the program is already consolidated within the organization there are no limitations to the inventory, since all the data generated internally are available for elaboration of the inventory. When we look at the emissions history of Klabin's total GHG inventory, there was a 69% reduction in Scope 12 emissions per ton of product produced between 2004 and 2023. This reflects Klabin's commitment to increasingly seeking sustainable business alternatives, in line with the UN Sustainable Development Goals and the Klabin Objectives for Sustainable Development (KODS), which guide the company's strategic planning towards a renewable future.

(7.73.2.10) Methods used to estimate lifecycle emissions

Select from:

☑ ISO 14040 & 14044

Row 8

(7.73.2.1) Requesting member

Select from:

(7.73.2.2) Name of good/ service

Corrugated cardboard box - Jundiaí DI

(7.73.2.3) Description of good/ service

Corrugated cardboard box - Jundiaí DI (Scope 1 2 emissions)

(7.73.2.4) Type of product

Select from:

☑ Final

(7.73.2.5) Unique product identifier

tonnes

(7.73.2.6) Total emissions in kg CO2e per unit

41.42

(7.73.2.7) ±% change from previous figure supplied

0

(7.73.2.8) Date of previous figure supplied

12/31/2023

(7.73.2.9) Explanation of change

This is the specific CO2 emission (kgCO2e/ton of product) for the unit's products. The emissions correspond to scope 1, using the Brazilian GHG methodology. This allocation result is based on the specific CO2e emission for each ton of product supplied to the client in 2023. Emissions come mainly from the stationary combustion category for energy generation and the mobile combustion category related to the transportation of raw materials and the use of light vehicles for commuting. It may contain other emissions related to the other scope 1 categories (fugitive emissions, industrial processes, among others). The GHG Protocol is a tool used to understand, quantify and manage GHG emissions. is now the most widely used method worldwide by companies and governments to conduct GHG inventories. It is also compatible with ISO 14.064 and the methods of quantification of the Intergovernmental Panel on Climate Change (IPCC). This inventory of greenhouse gases is verified and audited by third parties (scopes 1, 2 and 3), attesting the veracity of the data and publicly reported results. Klabin conducts its inventory of greenhouse gases and reports this information publicly since 2010. As the program is already consolidated within the organization there are no limitations to the inventory, since all the data generated internally are available for elaboration of the inventory. When we look at the emissions history of Klabin's total GHG inventory, there was a 69% reduction in Scope 12 emissions per ton of product produced between 2004 and 2023. This reflects Klabin's commitment to increasingly seeking sustainable business alternatives, in line with the UN Sustainable Development Goals and the Klabin Objectives for Sustainable Development (KODS), which guide the company's strategic planning towards a renewable future.

(7.73.2.10) Methods used to estimate lifecycle emissions

Select from:
☑ ISO 14040 & 14044

Row 9

(7.73.2.1) Requesting member

Select from:

(7.73.2.2) Name of good/ service

Corrugated cardboard box - Suzano

(7.73.2.3) Description of good/ service

Corrugated cardboard box - Suzano (Scope 1 2 emissions)

(7.73.2.4) Type of product

Select from:
☑ Final

(7.73.2.5) Unique product identifier

tonnes

(7.73.2.6) Total emissions in kg CO2e per unit

69.83

(7.73.2.7) ±% change from previous figure supplied

0

(7.73.2.8) Date of previous figure supplied

(7.73.2.9) Explanation of change

This is the specific CO2 emission (kgCO2e/ton of product) for the unit's products. The emissions correspond to scope 1, using the Brazilian GHG methodology. This allocation result is based on the specific CO2e emission for each ton of product supplied to the client in 2023. Emissions come mainly from the stationary combustion category for energy generation and the mobile combustion category related to the transportation of raw materials and the use of light vehicles for commuting. It may contain other emissions related to the other scope 1 categories (fugitive emissions, industrial processes, among others). The GHG Protocol is a tool used to understand, quantify and manage GHG emissions. is now the most widely used method worldwide by companies and governments to conduct GHG inventories. It is also compatible with ISO 14.064 and the methods of quantification of the Intergovernmental Panel on Climate Change (IPCC). This inventory of greenhouse gases is verified and audited by third parties (scopes 1, 2 and 3), attesting the veracity of the data and publicly reported results. Klabin conducts its inventory of greenhouse gases and reports this information publicly since 2010. As the program is already consolidated within the organization there are no limitations to the inventory, since all the data generated internally are available for elaboration of the inventory. When we look at the emissions history of Klabin's total GHG inventory, there was a 69% reduction in Scope 12 emissions per ton of product produced between 2004 and 2023. This reflects Klabin's commitment to increasingly seeking sustainable business alternatives, in line with the UN Sustainable Development Goals and the Klabin Objectives for Sustainable Development (KODS), which guide the company's strategic planning towards a renewable future.

(7.73.2.10) Methods used to estimate lifecycle emissions

Select from:

☑ ISO 14040 & 14044

Row 10

(7.73.2.1) Requesting member

Select from:

(7.73.2.2) Name of good/ service

Corrugated cardboard box - Itajaí

(7.73.2.3) Description of good/ service

Corrugated cardboard box - Itajaí (Scope 1 2 emissions)

(7.73.2.4) Type of product

Select from:

☑ Final

(7.73.2.5) Unique product identifier

tonnes

(7.73.2.6) Total emissions in kg CO2e per unit

64.28

(7.73.2.7) ±% change from previous figure supplied

0

(7.73.2.8) Date of previous figure supplied

12/31/2023

(7.73.2.9) Explanation of change

This is the specific CO2 emission (kgCO2e/ton of product) for the unit's products. The emissions correspond to scope 1, using the Brazilian GHG methodology. This allocation result is based on the specific CO2e emission for each ton of product supplied to the client in 2023. Emissions come mainly from the stationary combustion category for energy generation and the mobile combustion category related to the transportation of raw materials and the use of light vehicles for commuting. It may contain other emissions related to the other scope 1 categories (fugitive emissions, industrial processes, among others). The GHG Protocol is a tool used to understand, quantify and manage GHG emissions. is now the most widely used method worldwide by companies and governments to conduct GHG inventories. It is also compatible with ISO 14.064 and the methods of quantification of the Intergovernmental Panel on Climate Change (IPCC). This inventory of greenhouse gases is verified and audited by third parties (scopes 1, 2 and 3), attesting the veracity of the data and publicly reported results. Klabin conducts its inventory of greenhouse gases and reports this information publicly since 2010. As the program is already consolidated within the organization there are no limitations to the inventory, since all the data generated internally are available for elaboration of the inventory. When we look at the emissions history of Klabin's total GHG inventory, there was a 69% reduction in Scope 12 emissions per ton of product produced between 2004 and 2023. This reflects Klabin's commitment to increasingly seeking sustainable business alternatives, in line with the UN Sustainable Development Goals and the Klabin Objectives for Sustainable Development (KODS), which guide the company's strategic planning towards a renewable future.

(7.73.2.10) Methods used to estimate lifecycle emissions

Select from:

☑ ISO 14040 & 14044

Row 11

(7.73.2.1) Requesting member

Select from:

(7.73.2.2) Name of good/ service

Kraft

(7.73.2.3) Description of good/ service

Kraftliner paper (Scope 1 2 emissions)

(7.73.2.4) Type of product

Select from:
☑ Intermediate

(7.73.2.5) Unique product identifier

tonnes

(7.73.2.6) Total emissions in kg CO2e per unit

272.19

(7.73.2.7) ±% change from previous figure supplied

0

(7.73.2.8) Date of previous figure supplied

12/31/2023

(7.73.2.9) Explanation of change

This is the specific CO2 emission (kgCO2e/ton of product) for the unit's products. The emissions correspond to scope 1, using the Brazilian GHG methodology. This allocation result is based on the specific CO2e emission for each ton of product supplied to the client in 2023. Emissions come mainly from the stationary combustion category for energy generation and the mobile combustion category related to the transportation of raw materials and the use of light vehicles for commuting. It may contain other emissions related to the other scope 1 categories (fugitive emissions, industrial processes, among others). The GHG Protocol is a tool used to understand, quantify and manage GHG emissions. is now the most widely used method worldwide by companies and governments to conduct GHG inventories. It is also compatible with ISO 14.064 and the methods of quantification of the Intergovernmental Panel on Climate Change (IPCC). This inventory of greenhouse gases is verified and audited by third parties (scopes 1, 2 and 3), attesting the veracity of the data and publicly reported results. Klabin conducts its inventory of greenhouse gases and reports this information publicly since 2010. As the program is already consolidated within the organization there are no limitations to the inventory, since all the data generated internally are available for elaboration of the inventory. When we look at the emissions history of Klabin's total GHG inventory, there was a 69% reduction in Scope 12 emissions per ton of product produced between 2004 and 2023. This reflects Klabin's commitment to increasingly seeking sustainable business alternatives, in line with the UN Sustainable Development Goals and the Klabin Objectives for Sustainable Development (KODS), which guide the company's strategic planning towards a renewable future.

(7.73.2.10) Methods used to estimate lifecycle emissions

Select from:

☑ ISO 14040 & 14044

Row 12

(7.73.2.1) Requesting member

Select from:

(7.73.2.2) Name of good/ service

Carrier Board

(7.73.2.3) Description of good/ service

Carrier Board (Scope 1 2 emissions)

(7.73.2.4) Type of product

Select from:

☑ Intermediate

(7.73.2.5) Unique product identifier

tonnes

(7.73.2.6) Total emissions in kg CO2e per unit

272.19

(7.73.2.7) ±% change from previous figure supplied

0

(7.73.2.8) Date of previous figure supplied

12/31/2023

(7.73.2.9) Explanation of change

This is the specific CO2 emission (kgCO2e/ton of product) for the unit's products. The emissions correspond to scope 1, using the Brazilian GHG methodology. This allocation result is based on the specific CO2e emission for each ton of product supplied to the client in 2023. Emissions come mainly from the stationary combustion category for energy generation and the mobile combustion category related to the transportation of raw materials and the use of light vehicles for commuting. It may contain other emissions related to the other scope 1 categories (fugitive emissions, industrial processes, among others). The GHG Protocol is a tool used to understand, quantify and manage GHG emissions. is now the most widely used method worldwide by companies and governments to conduct GHG inventories. It is also compatible with ISO 14.064 and the methods of quantification of the Intergovernmental Panel on Climate Change (IPCC). This inventory of greenhouse gases is verified and audited by third parties (scopes 1, 2 and 3), attesting the veracity of the data and publicly reported results. Klabin conducts its inventory of greenhouse gases and reports this information publicly since 2010. As the program is already consolidated within the organization there are no limitations to the inventory, since all the data generated internally are available for elaboration of the inventory. When we look at the emissions history of Klabin's total GHG inventory, there was a 69% reduction in Scope 12 emissions per ton of product produced between 2004 and 2023. This reflects Klabin's commitment to increasingly seeking sustainable business alternatives, in line with the UN Sustainable Development Goals and the Klabin Objectives for Sustainable Development (KODS), which guide the company's strategic planning towards a renewable future.

(7.73.2.10) Methods used to estimate lifecycle emissions

Select from:

☑ ISO 14040 & 14044

Row 13

(7.73.2.1) Requesting member

Select from:

(7.73.2.2) Name of good/ service

Corrugated cardboard box - Goiana

(7.73.2.3) Description of good/ service

Corrugated cardboard box - Goiana (Scope 1 2 emissions)

(7.73.2.4) Type of product

Select from:
☑ Final

(7.73.2.5) Unique product identifier

tonnes

(7.73.2.6) Total emissions in kg CO2e per unit

152.98

(7.73.2.7) ±% change from previous figure supplied

0

(7.73.2.8) Date of previous figure supplied

12/31/2023

(7.73.2.9) Explanation of change

This is the specific CO2 emission (kgCO2e/ton of product) for the unit's products. The emissions correspond to scope 1, using the Brazilian GHG methodology. This allocation result is based on the specific CO2e emission for each ton of product supplied to the client in 2023. Emissions come mainly from the stationary combustion category for energy generation and the mobile combustion category related to the transportation of raw materials and the use of light vehicles for commuting. It may contain other emissions related to the other scope 1 categories (fugitive emissions, industrial processes, among others). The GHG Protocol is a tool used to understand, quantify and manage GHG emissions. is now the most widely used method worldwide by companies and governments to conduct GHG inventories. It is also compatible with ISO 14.064 and the methods of quantification of the Intergovernmental Panel on Climate Change (IPCC). This inventory of greenhouse gases is verified and audited by third parties (scopes 1, 2 and 3), attesting the veracity of the data and publicly reported results. Klabin conducts its inventory of greenhouse gases and reports this information publicly since 2010. As the program is already consolidated within the organization there are no limitations to the inventory, since all the data generated internally are available for elaboration of the inventory. When we look at the emissions history of Klabin's total GHG inventory, there was a 69% reduction in Scope 12 emissions per ton of product produced between 2004 and 2023. This reflects Klabin's commitment to increasingly seeking sustainable business alternatives, in line with the UN Sustainable Development Goals and the Klabin Objectives for Sustainable Development (KODS), which guide the company's strategic planning towards a renewable future.

(7.73.2.10) Methods used to estimate lifecycle emissions

Select from:

☑ ISO 14040 & 14044

Row 14

(7.73.2.1) Requesting member

Select from:

(7.73.2.2) Name of good/ service

Corrugated cardboard box - Jundiaí DI

(7.73.2.3) Description of good/ service

Corrugated cardboard box - Jundiaí DI (Scope 1 2 emissions)

(7.73.2.4) Type of product

Select from:

☑ Final

(7.73.2.5) Unique product identifier

tonnes

(7.73.2.6) Total emissions in kg CO2e per unit

41.42

(7.73.2.7) ±% change from previous figure supplied

0

(7.73.2.8) Date of previous figure supplied

12/31/2023

(7.73.2.9) Explanation of change

This is the specific CO2 emission (kgCO2e/ton of product) for the unit's products. The emissions correspond to scope 1, using the Brazilian GHG methodology. This allocation result is based on the specific CO2e emission for each ton of product supplied to the client in 2023. Emissions come mainly from the stationary combustion category for energy generation and the mobile combustion category related to the transportation of raw materials and the use of light vehicles for commuting. It may contain other emissions related to the other scope 1 categories (fugitive emissions, industrial processes, among others). The GHG Protocol is a tool used to understand, quantify and manage GHG emissions. is now the most widely used method worldwide by companies and governments to conduct GHG inventories. It is also compatible with ISO 14.064 and the methods of quantification of the Intergovernmental Panel on Climate Change (IPCC). This inventory of greenhouse gases is verified and audited by third parties (scopes 1, 2 and 3), attesting the veracity of the data and publicly reported results. Klabin conducts its inventory of greenhouse gases and reports this information publicly since 2010. As the program is already consolidated within the organization there are no limitations to the inventory, since all the data generated internally are available for elaboration of the inventory. When we look at the emissions history of Klabin's total GHG inventory, there was a 69% reduction in Scope 12 emissions per ton of product produced between 2004 and 2023. This reflects Klabin's commitment to increasingly seeking sustainable business alternatives, in line with the UN Sustainable Development Goals and the Klabin Objectives for Sustainable Development (KODS), which guide the company's strategic planning towards a renewable future.

(7.73.2.10) Methods used to estimate lifecycle emissions

Select from:

☑ ISO 14040 & 14044

[Add row]

(7.73.3) Complete the following table with data for lifecycle stages of your goods and/or services.

Row 1

(7.73.3.1) Requesting member

Select from:

(7.73.3.2) Name of good/ service

Corrugated cardboard box - Goiana

(7.73.3.3) Scope

Select from:
☑ Scope 1, 2 & 3

(7.73.3.4) Lifecycle stage

Select from:
☑ Cradle to gate

(7.73.3.5) Emissions at the lifecycle stage in kg CO2e per unit

784

(7.73.3.6) Lifecycle stage under your ownership or control

Select from:
☑ Yes

(7.73.3.7) Type of data used

Select from:
☑ Primary and secondary

(7.73.3.8) Data quality

In 2021 some studies of Life Cycle Assessment were updated and verified by a third party for the following products: Carrier Board Liquid Paper Board and Kraft. These studies indicate that the amount of CO2 captured from the atmosphere during photosynthesis is greater than that emitted by Klabin's production process. In the course of the year of 2022 were done studies about eXcel and PineFluff pulps, EKN, LTK and LTP Papers produced in Angatuba mill and corrugated boxes produced in Jundiaí – DI mill. The discrepancy calculated in the model used was 6% which is an acceptable value. For the calculation of the carbon footprint of cellulose, the carbon removed / sequestered from planted forests was not considered

(7.73.3.9) If applicable, describe the verification/assurance of the product emissions data

The data were verified and validated according to the STANDARD ISO 14044 methodology

Row 2

(7.73.3.1) Requesting member

Select from:

(7.73.3.2) Name of good/ service

Corrugated cardboard box - Itajaí

(7.73.3.3) Scope

Select from:

☑ Scope 1, 2 & 3

(7.73.3.4) Lifecycle stage

Select from:

☑ Cradle to gate

(7.73.3.5) Emissions at the lifecycle stage in kg CO2e per unit

367

(7.73.3.6) Lifecycle stage under your ownership or control

Select from:

☑ Yes

(7.73.3.7) Type of data used

Select from:

☑ Primary and secondary

(7.73.3.8) Data quality

In 2023, a Life Cycle Assessment study was carried out and verified by third parties for the products produced at the Itajaí plant. These studies indicate that the amount of CO2 captured from the atmosphere during photosynthesis is greater than that emitted by Klabin's production process To assess the quality of the data, a simplified Pedigree Matrix approach was used, which includes a qualitative assessment of the data quality indicators. The use of the Pedigree Matrix is intended to minimize the effects of asymmetry on data quality.

(7.73.3.9) If applicable, describe the verification/assurance of the product emissions data

The data were verified and validated according to the STANDARD ISO 14044 methodology

Row 3

(7.73.3.1) Requesting member

Select from:

(7.73.3.2) Name of good/ service

Liquid Package Board (LPB)

(7.73.3.3) Scope

Select from:

☑ Scope 1, 2 & 3

(7.73.3.4) Lifecycle stage

Select from:

☑ Cradle to gate

(7.73.3.5) Emissions at the lifecycle stage in kg CO2e per unit

329

(7.73.3.6) Lifecycle stage under your ownership or control

Select from:

☑ Yes

(7.73.3.7) Type of data used

Select from:

☑ Primary and secondary

(7.73.3.8) Data quality

In 2021 some studies of Life Cycle Assessment were updated and verified by a third party for the following products: Carrier Board Liquid Paper Board and Kraft. These studies indicate that the amount of CO2 captured from the atmosphere during photosynthesis is greater than that emitted by Klabin's production process. In the course of the year of 2022 were done studies about eXcel and PineFluff pulps, EKN, LTK and LTP Papers produced in Angatuba mill and corrugated boxes produced in Jundiaí – DI mill. It is important to mention that this result is POSITIVE, which means that the emission for the LPB product is -1,517 kg CO2eq / tonne of paper produced The discrepancy calculated in the model used was 11% whitch is an acceptable value

(7.73.3.9) If applicable, describe the verification/assurance of the product emissions data

The data were verified and validated according to the STANDARD ISO 14044 methodology

Row 4

(7.73.3.1) Requesting member

Select from:

(7.73.3.2) Name of good/ service

Corrugated cardboard box - Betim

(7.73.3.3) Scope

Select from:

☑ Scope 1, 2 & 3

(7.73.3.4) Lifecycle stage

Select from:

☑ Cradle to gate

(7.73.3.5) Emissions at the lifecycle stage in kg CO2e per unit

367

(7.73.3.6) Lifecycle stage under your ownership or control

Select from:

☑ Yes

(7.73.3.7) Type of data used

Select from:

☑ Primary and secondary

(7.73.3.8) Data quality

The figure corresponds to an estimate based on the study carried out for the same product in a unit with similar operating processes and production capacity. In 2023, a Life Cycle Assessment study was carried out and verified by third parties for the products produced at the Itajaí plant. These studies indicate that the amount of CO2 captured from the atmosphere during photosynthesis is greater than that emitted by Klabin's production process To assess the quality of the data, a simplified Pedigree Matrix approach was used, which includes a qualitative assessment of the data quality indicators. The use of the Pedigree Matrix is intended to minimize the effects of asymmetry on data quality.

(7.73.3.9) If applicable, describe the verification/assurance of the product emissions data

The data were verified and validated according to the STANDARD ISO 14044 methodology

Row 5

(7.73.3.1) Requesting member

Select from:

(7.73.3.2) Name of good/ service

Corrugated cardboard box - Manaus

(7.73.3.3) Scope

Select from:
☑ Scope 1, 2 & 3

(7.73.3.4) Lifecycle stage

Select from:
☑ Cradle to gate

(7.73.3.5) Emissions at the lifecycle stage in kg CO2e per unit

367

(7.73.3.6) Lifecycle stage under your ownership or control

Select from:
☑ Yes

(7.73.3.7) Type of data used

Select from:

☑ Primary and secondary

(7.73.3.8) Data quality

The figure corresponds to an estimate based on the study carried out for the same product in a unit with similar operating processes and production capacity. In 2023, a Life Cycle Assessment study was carried out and verified by third parties for the products produced at the Itajaí plant. These studies indicate that the amount of CO2 captured from the atmosphere during photosynthesis is greater than that emitted by Klabin's production process To assess the quality of the data, a simplified Pedigree Matrix approach was used, which includes a qualitative assessment of the data quality indicators. The use of the Pedigree Matrix is intended to minimize the effects of asymmetry on data quality.

(7.73.3.9) If applicable, describe the verification/assurance of the product emissions data

The data were verified and validated according to the STANDARD ISO 14044 methodology

Row 6

(7.73.3.1) Requesting member

Select from:

(7.73.3.2) Name of good/ service

Corrugated cardboard box

(7.73.3.3) Scope

Select from:

☑ Scope 1, 2 & 3

(7.73.3.4) Lifecycle stage

Select from:

☑ Cradle to gate

(7.73.3.5) Emissions at the lifecycle stage in kg CO2e per unit

0

(7.73.3.6) Lifecycle stage under your ownership or control

Select from:

☑ Yes

(7.73.3.7) Type of data used

Select from:

☑ Primary and secondary

(7.73.3.8) Data quality

The company did not acquire Klabin products in 2023

(7.73.3.9) If applicable, describe the verification/assurance of the product emissions data

The data were verified and validated according to the STANDARD ISO 14044 methodology

Row 7

(7.73.3.1) Requesting member

Select from:

(7.73.3.2) Name of good/ service

Pinefluff

(7.73.3.3) Scope

Select from:

☑ Scope 1, 2 & 3

(7.73.3.4) Lifecycle stage

Select from:

☑ Cradle to gate

(7.73.3.5) Emissions at the lifecycle stage in kg CO2e per unit

290

(7.73.3.6) Lifecycle stage under your ownership or control

Select from:

☑ Yes

(7.73.3.7) Type of data used

Select from:

☑ Primary and secondary

(7.73.3.8) Data quality

In 2021 some studies of Life Cycle Assessment were updated and verified by a third party for the following products: Carrier Board Liquid Paper Board and Kraft. These studies indicate that the amount of CO2 captured from the atmosphere during photosynthesis is greater than that emitted by Klabin's production process. In the course of the year of 2022 were done studies about eXcel and PineFluff pulps, EKN, LTK and LTP Papers produced in Angatuba mill and corrugated boxes produced in Jundiaí – DI mill.

(7.73.3.9) If applicable, describe the verification/assurance of the product emissions data

The data were verified and validated according to the STANDARD ISO 14044 methodology

Row 8

(7.73.3.1) Requesting member

Select from:

(7.73.3.2) Name of good/ service

Corrugated cardboard box - Jundiaí DI

(7.73.3.3) Scope

Select from:

☑ Scope 1, 2 & 3

(7.73.3.4) Lifecycle stage

Select from:

☑ Cradle to gate

(7.73.3.5) Emissions at the lifecycle stage in kg CO2e per unit

506

(7.73.3.6) Lifecycle stage under your ownership or control

Select from:

☑ Yes

(7.73.3.7) Type of data used

Select from:

☑ Primary and secondary

(7.73.3.8) Data quality

In 2022, a Life Cycle Assessment study was carried out and verified by third parties for the following products: eXcel and PineFluff pulps, EKN, LTK and LTP Papers produced in Angatuba mill and corrugated boxes produced in Jundiaí – DI mill. These studies indicate that the amount of CO2 captured from the atmosphere during photosynthesis is greater than that emitted by Klabin's production process To assess data quality, a simplified approach of the Pedigree Matrix was used, which includes a qualitative assessment of data quality indicators. Using the Pedigree Matrix, it is intended to minimize the effects resulting from asymmetry in the data quality.

(7.73.3.9) If applicable, describe the verification/assurance of the product emissions data

The data were verified and validated according to the STANDARD ISO 14044 methodology

Row 9

(7.73.3.1) Requesting member

Select from:

(7.73.3.2) Name of good/ service

Corrugated cardboard box - Suzano

(7.73.3.3) Scope

Select from:
☑ Scope 1, 2 & 3

(7.73.3.4) Lifecycle stage

Select from:
☑ Cradle to gate

(7.73.3.5) Emissions at the lifecycle stage in kg CO2e per unit

506

(7.73.3.6) Lifecycle stage under your ownership or control

Select from:
☑ Yes

(7.73.3.7) Type of data used

Select from:

☑ Primary and secondary

(7.73.3.8) Data quality

The figure corresponds to an estimate based on the study carried out for the same product in a unit with similar operating processes and production capacity. In 2023, a Life Cycle Assessment study was carried out and verified by third parties for the products produced at the Itajaí plant. These studies indicate that the amount of CO2 captured from the atmosphere during photosynthesis is greater than that emitted by Klabin's production process To assess the quality of the data, a simplified Pedigree Matrix approach was used, which includes a qualitative assessment of the data quality indicators. The use of the Pedigree Matrix is intended to minimize the effects of asymmetry on data quality.

(7.73.3.9) If applicable, describe the verification/assurance of the product emissions data

The data were verified and validated according to the STANDARD ISO 14044 methodology

Row 10

(7.73.3.1) Requesting member

Select from:

(7.73.3.2) Name of good/ service

Corrugated cardboard box - Itajaí

(7.73.3.3) Scope

Select from:

☑ Scope 1, 2 & 3

(7.73.3.4) Lifecycle stage

Select from:

☑ Cradle to gate

(7.73.3.5) Emissions at the lifecycle stage in kg CO2e per unit

367

(7.73.3.6) Lifecycle stage under your ownership or control

Select from:

☑ Yes

(7.73.3.7) Type of data used

Select from:

☑ Primary and secondary

(7.73.3.8) Data quality

In 2023, a Life Cycle Assessment study was carried out and verified by third parties for the products produced at the Itajaí plant. These studies indicate that the amount of CO2 captured from the atmosphere during photosynthesis is greater than that emitted by Klabin's production process To assess the quality of the data, a simplified Pedigree Matrix approach was used, which includes a qualitative assessment of the data quality indicators. The use of the Pedigree Matrix is intended to minimize the effects of asymmetry on data quality.

(7.73.3.9) If applicable, describe the verification/assurance of the product emissions data

The data were verified and validated according to the STANDARD ISO 14044 methodology

Row 11

(7.73.3.1) Requesting member

Select from:

(7.73.3.2) Name of good/ service

Kraft

(7.73.3.3) Scope

Select from:

☑ Scope 1, 2 & 3

(7.73.3.4) Lifecycle stage

Select from:

☑ Cradle to gate

(7.73.3.5) Emissions at the lifecycle stage in kg CO2e per unit

239

(7.73.3.6) Lifecycle stage under your ownership or control

Select from:

☑ Yes

(7.73.3.7) Type of data used

Select from:

☑ Primary and secondary

(7.73.3.8) Data quality

In 2021 some studies of Life Cycle Assessment were updated and verified by a third party for the following products: Carrier Board Liquid Paper Board and Kraft. These studies indicate that the amount of CO2 captured from the atmosphere during photosynthesis is greater than that emitted by Klabin's production process. In the course of the year of 2022 were done studies about eXcel and PineFluff pulps, EKN, LTK and LTP Papers produced in Angatuba mill and corrugated boxes produced in Jundiaí – DI mill. It is important to mention that this result is POSITIVE, which means that the emission for the Kraftliner product is -1,679 kg CO2eq / tonne of paper produced The discrepancy calculated in the model used was 11% whitch is an acceptable value

(7.73.3.9) If applicable, describe the verification/assurance of the product emissions data

The data were verified and validated according to the STANDARD ISO 14044 methodology

Row 12

(7.73.3.1) Requesting member

Select from:

(7.73.3.2) Name of good/ service

Carrier Board

(7.73.3.3) Scope

Select from:

☑ Scope 1, 2 & 3

(7.73.3.4) Lifecycle stage

Select from:

☑ Cradle to gate

(7.73.3.5) Emissions at the lifecycle stage in kg CO2e per unit

336

(7.73.3.6) Lifecycle stage under your ownership or control

Select from:

☑ Yes

(7.73.3.7) Type of data used

Select from:

☑ Primary and secondary

(7.73.3.8) Data quality

In 2021 some studies of Life Cycle Assessment were updated and verified by a third party for the following products: Carrier Board Liquid Paper Board and Kraft. These studies indicate that the amount of CO2 captured from the atmosphere during photosynthesis is greater than that emitted by Klabin's production process. In the course of the year of 2022 were done studies about eXcel and PineFluff pulps, EKN, LTK and LTP Papers produced in Angatuba mill and corrugated boxes produced in Jundiaí – DI mill.

(7.73.3.9) If applicable, describe the verification/assurance of the product emissions data

The data were verified and validated according to the STANDARD ISO 14044 methodology

Row 13

(7.73.3.1) Requesting member

Select from:

(7.73.3.2) Name of good/ service

Corrugated cardboard box - Goiana

(7.73.3.3) Scope

Select from:

☑ Scope 1, 2 & 3

(7.73.3.4) Lifecycle stage

Select from:

☑ Cradle to gate

(7.73.3.5) Emissions at the lifecycle stage in kg CO2e per unit

784

(7.73.3.6) Lifecycle stage under your ownership or control

Select from:

☑ Yes

(7.73.3.7) Type of data used

Select from:

☑ Primary and secondary

(7.73.3.8) Data quality

In 2021 some studies of Life Cycle Assessment were updated and verified by a third party for the following products: Carrier Board Liquid Paper Board and Kraft. These studies indicate that the amount of CO2 captured from the atmosphere during photosynthesis is greater than that emitted by Klabin's production process. In the course of the year of 2022 were done studies about eXcel and PineFluff pulps, EKN, LTK and LTP Papers produced in Angatuba mill and corrugated boxes produced in Jundiaí – DI mill. The discrepancy calculated in the model used was 6% which is an acceptable value. For the calculation of the carbon footprint of cellulose, the carbon removed / sequestered from planted forests was not considered

(7.73.3.9) If applicable, describe the verification/assurance of the product emissions data

The data were verified and validated according to the STANDARD ISO 14044 methodology

Row 14

(7.73.3.1) Requesting member

Select from:

(7.73.3.2) Name of good/ service

Corrugated cardboard box - Jundiai DI

(7.73.3.3) Scope

Select from:

☑ Scope 1, 2 & 3

(7.73.3.4) Lifecycle stage

Select from:
☑ Cradle to gate

(7.73.3.5) Emissions at the lifecycle stage in kg CO2e per unit

506.0

(7.73.3.6) Lifecycle stage under your ownership or control

Select from:
☑ Yes

(7.73.3.7) Type of data used

Select from:
☑ Primary and secondary

(7.73.3.8) Data quality

In 2022, a Life Cycle Assessment study was carried out and verified by third parties for the following products: eXcel and PineFluff pulps, EKN, LTK and LTP Papers produced in Angatuba mill and corrugated boxes produced in Jundiaí – DI mill. These studies indicate that the amount of CO2 captured from the atmosphere during photosynthesis is greater than that emitted by Klabin's production process To assess data quality, a simplified approach of the Pedigree Matrix was used, which includes a qualitative assessment of data quality indicators. Using the Pedigree Matrix, it is intended to minimize the effects resulting from asymmetry in the data quality.

(7.73.3.9) If applicable, describe the verification/assurance of the product emissions data

The data were verified and validated according to the STANDARD ISO 14044 methodology
[Add row]

(7.73.4) Please detail emissions reduction initiatives completed or planned for this product.

Row 1

(7.73.4.1) Name of good/ service

Eukaliner

(7.73.4.2) Initiative ID

Select from:

☑ Initiative 1

(7.73.4.3) Description of initiative

*In the year 2023, we reduced the consumption of heavy oil by 17,963,770 liters through consumption reduction initiatives compared to 2021, with the full operation of biomass gasification at the Puma unit, the Syngas, a product derived from responsible to produce this product. These actions resulted in a total of 56.046,96 tCO2eq of avoided emissions, which is equivalent to a reduction of 26.35 of CO2 for each ton of product produced. Avoided emissions / production of tonnes of product (56.046,96 tCO2eq / 2,126,904.46 tonnes of product) * 1000 26.35 kg CO2e per unit*

(7.73.4.4) Completed or planned

Select from:

☑ Completed

(7.73.4.5) Emission reductions in kg CO2e per unit

26.35
[Add row]

(7.73.5) Have any of the initiatives described in 7.73.4 been driven by requesting CDP Supply Chain members?

Select from:

☑ No

(7.74) Do you classify any of your existing goods and/or services as low-carbon products?

Select from:

☑ Yes

(7.74.1) Provide details of your products and/or services that you classify as low-carbon products.

Row 1

(7.74.1.1) Level of aggregation

Select from:

☑ Product or service

(7.74.1.2) Taxonomy used to classify product(s) or service(s) as low-carbon

Select from:

☑ Climate Bonds Taxonomy

(7.74.1.3) Type of product(s) or service(s)

Power

☑ Other, please specify **:**LPB -Liquid Packaging Board

(7.74.1.4) Description of product(s) or service(s)

Klabin has produced hardwood bleached pulp that uses more than 92% of renewable fuels on energy matrix. These products can be classified as low-carbon products because manufacturing of them requires very less GHG emissions.

(7.74.1.5) Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

Select from:

☑ Yes

(7.74.1.6) Methodology used to calculate avoided emissions

Select from:

☑ Guidelines for Assessing the Contribution of Products to Avoided Greenhouse Gas Emissions (ILCA)

(7.74.1.7) Life cycle stage(s) covered for the low-carbon product(s) or services(s)

Select from:

☑ Cradle-to-gate

(7.74.1.8) Functional unit used

1000 kilograms of LPB at 2021.

(7.74.1.9) Reference product/service or baseline scenario used

1000 kilograms of LPB at 2008.

(7.74.1.10) Life cycle stage(s) covered for the reference product/service or baseline scenario

Select from:

☑ Cradle-to-gate

(7.74.1.11) Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario

163

(7.74.1.12) Explain your calculation of avoided emissions, including any assumptions

To estimate the emissions avoided with our products, we compared the life cycle analysis done previously (2008) with the analysis using more recent data (2021), in order to show what impact GHG emission reduction projects have on our products. Thus, we can say that we use the attributional estimation approach.

(7.74.1.13) Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

100

Row 2

(7.74.1.1) Level of aggregation

Select from:

☑ Product or service

(7.74.1.2) Taxonomy used to classify product(s) or service(s) as low-carbon

Select from:

☑ Climate Bonds Taxonomy

(7.74.1.3) Type of product(s) or service(s)

Power

☑ Other, please specify **:**Hardwood bleached pulp

(7.74.1.4) Description of product(s) or service(s)

Klabin has produced hardwood bleached pulp that uses more than 92% of renewable fuels on energy matrix. These products can be classified as low-carbon products because manufacturing of them requires very less GHG emissions.

(7.74.1.5) Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

Select from:

☑ Yes

(7.74.1.6) Methodology used to calculate avoided emissions

Select from:

☑ Guidelines for Assessing the Contribution of Products to Avoided Greenhouse Gas Emissions (ILCA)

(7.74.1.7) Life cycle stage(s) covered for the low-carbon product(s) or services(s)

Select from:

☑ Cradle-to-gate

(7.74.1.8) Functional unit used

1000 kilograms of hardwood bleached pulp at 2022.

(7.74.1.9) Reference product/service or baseline scenario used

1000 kilograms of hardwood bleached pulp at 2018.

(7.74.1.10) Life cycle stage(s) covered for the reference product/service or baseline scenario

Select from:

☑ Cradle-to-gate

(7.74.1.11) Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario

47

(7.74.1.12) Explain your calculation of avoided emissions, including any assumptions

To estimate the emissions avoided with our products, we compared the life cycle analysis done previously (2018) with the analysis using more recent data with the full operation of Puma Project 2 (2022), in order to show what impact the GHG emission reduction projects have on our products. Thus, we can say that we use the attributional estimation approach.

(7.74.1.13) Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

100

Row 3

(7.74.1.1) Level of aggregation

Select from:

☑ Product or service

(7.74.1.2) Taxonomy used to classify product(s) or service(s) as low-carbon

Select from:

☑ Climate Bonds Taxonomy

(7.74.1.3) Type of product(s) or service(s)

Power

☑ Other, please specify **:**FBB/CB - Folding Box Board / Carrier Board

(7.74.1.4) Description of product(s) or service(s)

Klabin has produced Folding Box Board and Carrier Board that uses more than 92% of renewable fuels on energy matrix. These products can be classified as low-carbon products because manufacturing of them requires very less GHG emissions.

(7.74.1.5) Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

Select from:

☑ Yes

(7.74.1.6) Methodology used to calculate avoided emissions

Select from:

☑ Guidelines for Assessing the Contribution of Products to Avoided Greenhouse Gas Emissions (ILCA)

(7.74.1.7) Life cycle stage(s) covered for the low-carbon product(s) or services(s)

Select from:

☑ Cradle-to-gate

(7.74.1.8) Functional unit used

1000 kilograms of FBB/CB at 2021.

(7.74.1.9) Reference product/service or baseline scenario used

1000 kilograms of FBB/CB at 2008.

(7.74.1.10) Life cycle stage(s) covered for the reference product/service or baseline scenario

Select from:

☑ Cradle-to-gate

(7.74.1.11) Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario

157

(7.74.1.12) Explain your calculation of avoided emissions, including any assumptions

To estimate the emissions avoided with our products, we compared the life cycle analysis done previously (2008) with the analysis using more recent data (2021), in order to show what impact GHG emission reduction projects have on our products. Thus, we can say that we use the attributional estimation approach.

(7.74.1.13) Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

100
[Add row]

(7.79) Has your organization canceled any project-based carbon credits within the reporting year?

Select from:

☑ No

C8. Environmental performance - Forests

(8.1) Are there any exclusions from your disclosure of forests-related data?

	Exclusion from disclosure
Timber products	*Select from:* ☑ No

[Fixed row]

(8.2) Provide a breakdown of your disclosure volume per commodity.

Timber products

(8.2.1) Disclosure volume (metric tons)

14010570

(8.2.2) Volume type

Select all that apply

☑ Produced

☑ Sourced

(8.2.3) Produced volume (metric tons)

7444120

(8.2.4) Sourced volume (metric tons)

6566450
[Fixed row]

(8.3) Provide details on the land you own, manage and/or control that is used to produce your disclosed commodities.

Timber products

(8.3.1) Type of control

Select from:
☑ Own land

(8.3.2) Country/area

Select from:
☑ Brazil

(8.3.3) First-level administrative division

Select from:
☑ States/equivalent jurisdictions

(8.3.4) Specify the states or equivalent jurisdictions

Paraná, Santa Catarina, São Paulo e Rio Grande do Sul States

(8.3.5) Land type

Select from:
☑ Tree plantations

(8.3.6) Area (hectares)

374000

(8.3.7) Indicate if you can provide the volume produced on land you own, manage and/or control

Select from:

☑ Yes

(8.3.8) Volume produced on land you own, manage and/or control (metric tons)

7444120

(8.3.9) % area third-party certified

100

(8.3.10) Third-party certification scheme

Select all that apply

☑ FSC Forest Management certification

☑ PEFC Sustainable Forest Management certification

(8.3.11) Attach a list of production facility names and locations (optional)

Certificate FSC_Forest Management_Klabin PR_SP_SC.pdf
[Add row]

(8.4) Indicate if any of the land you own, manage and/or control was not used to produce your disclosed commodities in the reporting year.

Select from:

☑ All the land we own, manage and/or control is used for production

(8.5) Provide details on the origins of your sourced volumes.

Timber products

(8.5.1) Country/area of origin

Select from:

☑ Brazil

(8.5.2) First level administrative division

Select from:

☑ States/equivalent jurisdictions

(8.5.3) Specify the states or equivalent jurisdictions

Paraná, Santa Catarina, São Paulo e Rio Grande do Sul States

(8.5.4) Volume sourced from country/area of origin (metric tons)

6566450

(8.5.5) Source

Select all that apply

☑ Independent smallholders

☑ Company-affiliated smallholders

☑ Single contracted producer

☑ Contracted suppliers (processors)

☑ Contracted suppliers (manufacturers)

(8.5.6) List of supplier production and primary processing sites: names and locations (optional)

Certificate FSC_Forest Management_Klabin PR_SP_SC.pdf

(8.5.7) Please explain

Klabin's forests in Paraná state are distributed across three regions: Telêmaco Borba, Guarapuava and Jaguariaíva; distributed in more than 80 municipalities. The plantations are located in the Cerrado Biome, and Atlantic Forest, predominantly biome. The Unit is headquartered at the Monte Alegre Farm in Telêmaco Borba city, located in Campos Gerais region. Klabin's forests in Santa Catarina and Rio Grande do Sul states are located in the Planalto Serrano region; distributed in about 60 municipalities. The plantations are located in the Atlantic Forest biome. The industrial units (paper mills) are located in the municipalities of Otacilio Costa and Correia Pinto (Santa Catarina). Klabin's forests in São Paulo state are located in the Southeastern region; distributed in 20 municipalities. The plantations are located in the Cerrado Biome, and Atlantic Forest, predominantly biome. The head office of the São Paulo Unit is in Angatuba city.
[Add row]

(8.7) Did your organization have a no-deforestation or no-conversion target, or any other targets for sustainable production/ sourcing of your disclosed commodities, active in the reporting year?

Timber products

(8.7.1) Active no-deforestation or no-conversion target

Select from:
☑ Yes, we have a no-conversion target

(8.7.2) No-deforestation or no-conversion target coverage

Select from:
☑ Organization-wide (including suppliers)

(8.7.5) Other active targets related to this commodity, including any which contribute to your no-deforestation or no-conversion target

Select from:
☑ Yes, we have other targets related to this commodity
[Fixed row]

(8.7.1) Provide details on your no-deforestation or no-conversion target that was active during the reporting year.

Timber products

(8.7.1.1) No-deforestation or no-conversion target

Select from:

☑ No-conversion

(8.7.1.2) Your organization’s definition of “no-deforestation” or “no-conversion”

Klabin complies with AFi's operational guidance on the Application of Definitions Related to Deforestation and Conversion.

(8.7.1.3) Cutoff date

Select from:

☑ 1998

(8.7.1.4) Geographic scope of cutoff date

Select from:

☑ Country/area, please specify

(8.7.1.5) Rationale for selecting cutoff date

Select from:

☑ Legal requirements

(8.7.1.6) Target date for achieving no-deforestation or no-conversion

Select from:

☑ 2025

[Add row]

(8.7.2) Provide details of other targets related to your commodities, including any which contribute to your no-deforestation or no-conversion target, and progress made against them.

Timber products

(8.7.2.1) Target reference number

Select from:

☑ Target 2

(8.7.2.2) Target contributes to no-deforestation or no-conversion target reported in 8.7

Select from:

☑ Yes, this target contributes to our no-conversion target

(8.7.2.3) Target coverage

Select from:

☑ Organization-wide (including suppliers)

(8.7.2.4) Commodity volume covered by target (metric tons)

Select from:

☑ Disclosure volume

(8.7.2.5) Category of target & Quantitative metric

Third-party certification

☑ % of volume third-party certified

(8.7.2.7) Third-party certification scheme

Forest management unit/Producer certification

☑ FSC Forest Management certification

(8.7.2.8) Date target was set

01/01/2020

(8.7.2.9) End date of base year

12/31/2023

(8.7.2.10) Base year figure

60

(8.7.2.11) End date of target

12/31/2025

(8.7.2.12) Target year figure

79

(8.7.2.13) Reporting year figure

70

(8.7.2.14) Target status in reporting year

Select from:

☑ Underway

(8.7.2.15) % of target achieved relative to base year

52.63

(8.7.2.16) Global environmental treaties/ initiatives/ frameworks aligned with or supported by this target

Select all that apply

☑ Sustainable Development Goals

☑ Other, please specify **:**FSC Forest Management certification and Chain of Custody; Programme for the Endorsement of Forest Certification (PEFC); Zero net/gross deforestation; Brazilian Alliance on Climate, Forests and Agriculture; ...

(8.7.2.17) Explain target coverage and identify any exclusions

This goal covers all Klabin forestry areas or wood suppliers

(8.7.2.18) Plan for achieving target, and progress made to the end of the reporting year

Klabin is a forest-based company with more than 750 thousand hectares based on responsible management. FSC certified since 1998. Nowadays, it is able to supply 53 % of raw material used for process; considering owned and partnership sources, such as SPVs – Special Purpose Vehicles (Klabin has the preferential right to purchase the wood produced; among other typical rights granted to controlling shareholders of a company of this type). FSC is a credible forest certification scheme and widely used in forest sector; recognized by stakeholders as a standard of sustainable management. In 2023, Klabin purchased 6.6 MM tons of wood from third-party suppliers; 70% of it were Forest Management Certification raw materials. The target is to exponential increase 4-5% per year the consumption of certified wood (ton). The goal is to reach 79% in 2025 and 100% in 2030, of its wood consumption from certified sources. Klabin is committed to coverage of FSC chains of custody and controlled wood/due diligence system to ensure the legal, social and environmental responsible wood sources. However, to ensure a long-term supply it is interesting for the company the transition of suppliers from Controlled Wood to FSC Certificated. Therefore, Klabin actively works to help the smallholders to achieve the certification through technical approach in the Certification Program, since 2015. The encouragement to wood suppliers to get certification led to the result of 240 farmers with official recognition by FSC; about 107 thousand ha certified in 2023. The number has increased 15 times from the start figure, which is a positive result. Klabin invested R1,8 MM in the Suppliers Certification Program.

(8.7.2.20) Further details of target

Klabin is committed to long-term sustainable development, including the guaranteed supply of FSC certified wood with the Forest Suppliers Certification Program, and the Corporate Sustainability Targets, in line with the No Conversion of the Natural Ecosystem and the other voluntary commitments. Properties adequacy to Forest Code (Legal/Social Forest programs) led Klabin to also invest in Supplier Forest Certification Program in the region of Campos Gerais-PR (2015) and Planalto Serrano- SC (2017), seeking to raise quality of forest management in value chain. Forest Suppliers Certification program goal is to assist partners to obtain FSC certification for their forest management, with through technical assistance and financial incentives to achieve certification. The initiative is a part of company's goal to gradually change the standards from Controlled Wood to FSC Certified Wood.

Timber products

(8.7.2.1) Target reference number

Select from:

☑ Target 1

(8.7.2.2) Target contributes to no-deforestation or no-conversion target reported in 8.7

Select from:

☑ Yes, this target contributes to our no-conversion target

(8.7.2.3) Target coverage

Select from:

☑ Country/area/region

(8.7.2.4) Commodity volume covered by target (metric tons)

Select from:

☑ Other volume, please specify :Volume of seedlings donated for restoration of areas

(8.7.2.5) Category of target & Quantitative metric

Engagement in landscapes/jurisdictions

☑ Other landscapes/jurisdictions engagement target metric, please specify :Number of seedlings donated

(8.7.2.8) Date target was set

01/01/2020

(8.7.2.9) End date of base year

12/31/2023

(8.7.2.10) Base year figure

66000

(8.7.2.11) End date of target

12/31/2025

(8.7.2.12) Target year figure

500000

(8.7.2.13) Reporting year figure

549266

(8.7.2.14) Target status in reporting year

Select from:

☑ Achieved and maintained

(8.7.2.16) Global environmental treaties/ initiatives/ frameworks aligned with or supported by this target

Select all that apply

☑ Sustainable Development Goals

☑ Other, please specify **:**FSC Forest Management certification and Chain of Custody; Programme for the Endorsement of Forest Certification (PEFC); Zero net/gross deforestation; Brazilian Alliance on Climate, Forests and Agriculture; UN Decade of Ecosystem Restoration.

(8.7.2.17) Explain target coverage and identify any exclusions

Small- and medium-sized farmers located at Paraná and Santa Catarina States

(8.7.2.19) List the actions which contributed most to achieving or maintaining this target

The first step to environmental preservation is to preserve standing forests, in order to expand genetic heritage and contribute to the carbon stock. Since conservation/preservation of standing forests are a premise of Klabin's business plan – pioneer in adopt the mosaic concept management (42% of total forestry area refers to native forest for conservation). Next stage is to make investments to contribute to the enrichment of forests in initial stage and restoration of degraded areas. A positive effect on the landscape ecology of Klabin's operations influence region is expected. Efforts have been applied for some years now. From 2005 to 2020, Legal and Social Forests programs donated over 1 million seedlings for environmental adequacy of small and medium-sized properties in Paraná and Santa Catarina states. Klabin is committed to planting/donating more 1 million seedlings by 2030 (counting from 2020) to continue contributing to SDG 15 (500 k seedlings by 2025). Klabin's 2030 target is to preserve, restore and improve the environmental quality of natural areas (PPAs and LRs) in the company's operation region of influence. This commitment is available on kods.klabin.com.br website. "Legal Forests" and "Social Forests" programs are a partnership between Klabin and Apremavi, a non-profit Public Interest Civil Society Organization. "Legal Forests" program has existed in Santa Catarina forest unit since 2005 and in Paraná since 2008. Currently, Klabin uses technologies, such as satellite and drone images, to assessment and monitoring of areas. The goal is to keep up with advances and continually improve the processes in order to obtain quality data for decision-making, for example: the priorities areas for restoration. From that, Klabin foresees investments in the implantation of seedlings of native species in parallel with practices for conducting regeneration. The goal began to be measured in 2020 aligned with UN Decade of Ecosystem Restoration. The goal for 2025 has already been achieved, with more than 500,000 seedlings being donated/planted in own and third-party areas (2020 to

2023); (549,266 /500,000 1,1%). 90% in small and medium producers' properties. The premise was to donate 100,000 seedlings per year. The target by 2025 has already been achieved and it becomes possible to reach the target of 1 million by the end of 2030.

(8.7.2.20) Further details of target

Legal Forest Program aims to help partners to adequate their properties in accordance with Brazilian Forest Code. In 2023, about R1.2MM were invested in the Legal Forest Program in Paraná and Santa Catarina states to attend those Forest Fostering producers, with the aim to help them to preserve and restore natural forests. In this way, Klabin helps partner producers to align production and environmental issues, contributing to landscape ecology in the region and non-deforestation. This program comprises the planning rural properties, conservation, environmental education, and forest development in the state of Parana since 2008, and Santa Catarina since 2005. Small- and medium-sized farmers, who take part in this group, receive native seedlings to restore their Permanent Protection Areas and Legal Reserves. The program has over 1,421 registered properties, donated over 1,000,000 seedlings and mapped over 24 thousand native areas over 100 municipalities. Because of the success of this program, there was an opportunity to expand engagement beyond forest commodity. The Social Forest Program was developed in 2015 to encourage family farming, which involves small farmers in Parana. It was extended to Santa Catarina in 2020. The initiative covers the stages of production, from environmental adequation to support for the marketing of food, through training, diversification, and cooperates. Held in partnership with Sebrae and the NGO Apremavi, with the support of the municipal governments, Social Forests has served more than 600 farms. Some of the results obtained during this period include 268 thousand native seedlings donated and over 682 hectares of PPA and LRs mapped; increased income for small family farms; increased food production; sales to new markets; reduced use of pesticides; the adoption of new technologies, and organized production. Restoration projects stablished in both programs helps to connect native areas creating ecological corridors between Klabin's areas and its neighbors. Properties land use is monitored in GIS tool and during field visits. As conclusion, Klabin helps partner producers to align production and environmental issues, contributing to landscape ecology in the region. As conclusion, Klabin helps partner producers to align production and environmental issues, contributing to landscape ecology in the region.
[Add row]

(8.8) Indicate if your organization has a traceability system to determine the origins of your sourced volumes and provide details of the methods and tools used.

Timber products

(8.8.1) Traceability system

Select from:
☑ Yes

(8.8.2) Methods/tools used in traceability system

Select all that apply
☑ Chain-of-custody certification

(8.8.3) Description of methods/tools used in traceability system

Klabin is a forest-based company with more than 750 thousand hectares based on responsible management. FSC certified since 1998. Nowadays, it is able to supply 53 % of raw material used for process; considering owned and partnership sources, such as SPVs – Special Purpose Vehicles (Klabin has the preferential right to purchase the wood produced; among other typical rights granted to controlling shareholders of a company of this type. About 47% refers to wood purchased from certified and controlled wood suppliers. Klabin is committed to 100% coverage of FSC chains of custody and controlled wood/due diligence system to ensure the legal, social and environmental responsible wood sources. Wood purchase invoice registration in the internal company system (SAP) contains (i) supplier's registration code and (ii) origin of the wood as certified or not. Each farm/material has a specific purchase area, which provides reliable control over the origin of the wood. This method ensure the raw material traceability. The control of SAP is the Controllership responsibility. Meanwhile, field operational is accompanied by audit visits led by the Commercial team. The audit evidence and purchasing documents are maintained for at least 5 years. In 2023, 84% of total raw material used for process was 100% FSC, 48% own wood from certified Klabin areas (Forest Management Certificated) and 36% of wood purchased from FSC certified third parties (Forest Management Certificated or Chain-of-Custody). The other 16% refers to FSC Controlled Wood. In 202 3, 558 audits were realized, evaluating 156 areas of controlled wood in the states of Paraná and Santa Catarina. Klabin audits all controlled wood suppliers more than quarterly. Working conditions and environmental sustainability are evaluated. Compliance with Brazilian Forest Code and other regulations are considered; and a characterization of the conservation status of the PPAs and the LRs are made qualitatively. Klabin has a documented due diligence system (DDS) for raw materials supplied without FSC or PEFC declarations. It allows to be used as controlled raw material. All raw material suppliers are included in the DDS. At least once a year, Klabin performs an internal audit to ensure that the system is being applied correctly.
[Fixed row]

(8.8.1) Provide details of the point to which your organization can trace its sourced volumes.

Timber products

(8.8.1.1) % of sourced volume traceable to production unit

100

(8.8.1.2) % of sourced volume traceable to sourcing area and not to production unit

0

(8.8.1.3) % sourced volume traceable to country/area of origin and not to sourcing area or production unit

0

(8.8.1.4) % of sourced volume traceable to other point (i.e., processing facility/first importer) not in the country/area of origin

0

(8.8.1.5) % of sourced volume from unknown origin

0

(8.8.1.6) % of sourced volume reported

100.00
[Fixed row]

(8.9) Provide details of your organization's assessment of the deforestation-free (DF) or deforestation- and conversion-free (DCF) status of its disclosed commodities.

Timber products

(8.9.1) DF/DCF status assessed for this commodity

Select from:
☑ Yes, deforestation- and conversion-free (DCF) status assessed

(8.9.2) % of disclosure volume determined as DF/DCF in the reporting year

100

(8.9.3) % of disclosure volume determined as DF/DCF through a third-party certification scheme providing full DF/DCF assurance

100

(8.9.4) % of disclosure volume determined as DF/DCF through monitoring of production unit

0

(8.9.5) % of disclosure volume determined as DF/DCF through monitoring of sourcing area

0

(8.9.6) Is a proportion of your disclosure volume certified through a scheme not providing full DF/DCF assurance?

Select from:

☑ No

[Fixed row]

(8.9.1) Provide details of third-party certification schemes used to determine the deforestation-free (DF) or deforestation- and conversion-free (DCF) status of the disclosure volume, since specified cutoff date.

Timber products

(8.9.1.1) Third-party certification scheme providing full DF/DCF assurance

Forest management unit/Producer certification

☑ FSC Forest Management certification

(8.9.1.2) % of disclosure volume determined as DF/DCF through certification scheme providing full DF/DCF assurance

48

(8.9.1.3) Comment

Klabin is a forest-based company with more than 750 thousand hectares based on responsible management. FSC certified since 1998. Nowadays, it is able to supply 53 % of raw material used for process; considering owned and partnership sources, such as SPVs – Special Purpose Vehicles (Klabin has the preferential right to purchase the wood produced; among other typical rights granted to controlling shareholders of a company of this type. About 47% refers to wood purchased from certified and controlled wood suppliers. Klabin is committed to 100% coverage of FSC chains of custody and controlled wood/due diligence system to ensure the legal, social and environmental responsible wood sources (continue…).

(8.9.1.4) Certification documentation

Certificate FSC_Forest Management_Klabin PR_SP_SC.pdf

Timber products

(8.9.1.1) Third-party certification scheme providing full DF/DCF assurance

Forest management unit/Producer certification

☑ FSC Forest Management certification

(8.9.1.2) % of disclosure volume determined as DF/DCF through certification scheme providing full DF/DCF assurance

36

(8.9.1.3) Comment

Wood purchase invoice registration in the internal company system (SAP) contains (i) supplier's registration code and (ii) origin of the wood as certified or not. Each farm/material has a specific purchase area, which provides reliable control over the origin of the wood. This method ensure the raw material traceability. The control of SAP is the Controllership responsibility. Meanwhile, field operational is accompanied by audit visits led by the Commercial team. The audit evidence and purchasing documents are maintained for at least 5 years. In 2023, 84% of total raw material used for process was 100% FSC, 48% own wood from certified Klabin areas (Forest Management Certificated) and 36% of wood purchased from FSC certified third parties (Forest Management Certificated or Chain-of-Custody). The other 16% refers to FSC Controlled Wood (continue…)

(8.9.1.4) Certification documentation

Certificate FSC_Forest Management_Klabin PR_SP_SC.pdf

Timber products

(8.9.1.1) Third-party certification scheme providing full DF/DCF assurance

Forest management unit/Producer certification

☑ FSC Controlled Wood

(8.9.1.2) % of disclosure volume determined as DF/DCF through certification scheme providing full DF/DCF assurance

16

(8.9.1.3) Comment

In 2023, 558 audits were realized, evaluating 156 areas of controlled wood in the states of Paraná and Santa Catarina. Klabin audits all controlled wood suppliers more than quarterly. Working conditions and environmental sustainability are evaluated. Compliance with Brazilian Forest Code and other regulations are considered; and a characterization of the conservation status of the PPAs and the LRs are made qualitatively. Klabin has a documented due diligence system (DDS) for raw materials supplied without FSC or PEFC declarations. It allows to be used as controlled raw material. All raw material suppliers are included in the DDS. At least once a year, Klabin performs an internal audit to ensure that the system is being applied correctly.

(8.9.1.4) Certification documentation

Certificate FSC_Chain of Custody_Klabin SC_PR_SP.pdf
[Add row]

(8.10) Indicate whether you have monitored or estimated the deforestation and conversion of other natural ecosystems footprint for your disclosed commodities.

	Monitoring or estimating your deforestation and conversion footprint
Timber products	*Select from:* ☑ Yes

[Fixed row]

(8.10.1) Provide details on the monitoring or estimating of your deforestation and conversion footprint.

Timber products

(8.10.1.1) Monitoring and estimating your deforestation and conversion footprint

Select from:

☑ We monitor the deforestation and conversion footprint on the land we own, manage or control

(8.10.1.2) % of disclosure volume monitored or estimated

100

(8.10.1.3) Reporting of deforestation and conversion footprint

Select all that apply

☑ Since a specified cutoff date

(8.10.1.4) Year of cutoff date

2008

(8.10.1.6) Known or estimated deforestation and conversion footprint since the specified cutoff date (hectares)

0

(8.10.1.9) Describe the methods and data sources used to monitor or estimate your deforestation and conversion footprint

Klabin adopts FSC guidelines and tools to identify, assess, and monitor forestry risks in its operations and value chain. Annual external audits evaluate forest operations, providing security and credibility. FSC guidelines indicate key risks for area eligibility in commercial transactions, safeguarding against controversial wood sources. Klabin does not acquire or lease properties with native forest conversions after 1994, per FSC's 6th principle. GIS crew is responsible for temporal analyses from LandSat 1994 images. Klabin must safeguard its business according to the Brazilian Forest Code, which considers conversions after July 2008 an environmental crime. In 2020, GIS crew included MapBiomas alert tool in work routine (updated weekly). It's a valuable source of geospatial information due to its scope and data quality. It offers an intuitive, user-friendly tool for assessing deforestation alerts and land use changes in land use coverage. The MapBiomas Alert Shapefile, used in dashboards, detects recent deforestation in Klabin's operations and value chain (leased areas, standing timber, fomentation, prospecting, and partnerships). By 2023, about 603 hectares a in 74 properties were detected. Negotiations are suspended in such cases, and the legal department guides the procedure, ensuring a zero deforestation/conversion footprint. This info enhances environmental diagnostics of properties, ensuring deforestation-free and safeguarding Klabin's forestry business.
[Add row]

(8.12) Indicate if certification details are available for the commodity volumes sold to requesting CDP Supply Chain members.

	Third-party certification scheme adopted	Certification details are available for the volumes sold to any requesting CDP Supply Chain members
Timber products	*Select from:* ☑ Yes	*Select from:* ☑ Yes

[Fixed row]

(8.12.1) Provide details of the certified volumes sold to each requesting CDP Supply Chain member.

Row 1

(8.12.1.1) Requesting member

Select from:

(8.12.1.2) Commodity

Select from:

☑ Timber products

(8.12.1.3) Form of commodity

Select all that apply

☑ Secondary packaging

(8.12.1.4) Total volume of commodity sold to requesting member

119

(8.12.1.5) Metric

Select from:

☑ Metric tons

(8.12.1.6) Third-party certification scheme

Chain-of-custody certification

☑ FSC Chain-of-Custody certification (any type)

(8.12.1.7) % of the total volume of commodity sold to requesting member that is certified

0

(8.12.1.8) Comment (optional)

Not applicable

Row 2

(8.12.1.1) Requesting member

Select from:

(8.12.1.2) Commodity

Select from:

☑ Timber products

(8.12.1.3) Form of commodity

Select all that apply

☑ Secondary packaging

(8.12.1.4) Total volume of commodity sold to requesting member

2662

(8.12.1.5) Metric

Select from:
☑ Metric tons

(8.12.1.6) Third-party certification scheme

Chain-of-custody certification
☑ FSC Chain-of-Custody certification (any type)

(8.12.1.7) % of the total volume of commodity sold to requesting member that is certified

40.8

(8.12.1.8) Comment (optional)

Not applicable

Row 3

(8.12.1.1) Requesting member

Select from:

(8.12.1.2) Commodity

Select from:
☑ Timber products

(8.12.1.3) Form of commodity

Select all that apply

☑ Paper

(8.12.1.4) Total volume of commodity sold to requesting member

431241

(8.12.1.5) Metric

Select from:

☑ Metric tons

(8.12.1.6) Third-party certification scheme

Chain-of-custody certification

☑ FSC Chain-of-Custody certification (any type)

(8.12.1.7) % of the total volume of commodity sold to requesting member that is certified

90

(8.12.1.8) Comment (optional)

Not applicable

Row 4

(8.12.1.1) Requesting member

Select from:

(8.12.1.2) Commodity

Select from:

☑ Timber products

(8.12.1.3) Form of commodity

Select all that apply

☑ Secondary packaging

(8.12.1.4) Total volume of commodity sold to requesting member

1383

(8.12.1.5) Metric

Select from:

☑ Metric tons

(8.12.1.6) Third-party certification scheme

Chain-of-custody certification

☑ FSC Chain-of-Custody certification (any type)

(8.12.1.7) % of the total volume of commodity sold to requesting member that is certified

99.9

(8.12.1.8) Comment (optional)

Not applicable

Row 5

(8.12.1.1) Requesting member

Select from:

(8.12.1.2) Commodity

Select from:

☑ Timber products

(8.12.1.3) Form of commodity

Select all that apply

☑ Secondary packaging

(8.12.1.4) Total volume of commodity sold to requesting member

422

(8.12.1.5) Metric

Select from:

☑ Metric tons

(8.12.1.6) Third-party certification scheme

Chain-of-custody certification

☑ FSC Chain-of-Custody certification (any type)

(8.12.1.7) % of the total volume of commodity sold to requesting member that is certified

87.3

(8.12.1.8) Comment (optional)

Not applicable

Row 6

(8.12.1.1) Requesting member

Select from:

(8.12.1.2) Commodity

Select from:

☑ Timber products

(8.12.1.3) Form of commodity

Select all that apply

☑ Paper

(8.12.1.4) Total volume of commodity sold to requesting member

0

(8.12.1.5) Metric

Select from:

☑ Metric tons

(8.12.1.6) Third-party certification scheme

Chain-of-custody certification

☑ FSC Chain-of-Custody certification (any type)

(8.12.1.8) Comment (optional)

Not applicable

Row 7

(8.12.1.1) Requesting member

Select from:

(8.12.1.2) Commodity

Select from:

☑ Timber products

(8.12.1.3) Form of commodity

Select all that apply

☑ Pulp

(8.12.1.4) Total volume of commodity sold to requesting member

6402

(8.12.1.5) Metric

Select from:

☑ Metric tons

(8.12.1.6) Third-party certification scheme

Chain-of-custody certification

☑ FSC Chain-of-Custody certification (any type)

(8.12.1.7) % of the total volume of commodity sold to requesting member that is certified

0

(8.12.1.8) Comment (optional)

Not applicable

Row 8

(8.12.1.1) Requesting member

Select from:

(8.12.1.2) Commodity

Select from:
☑ Timber products

(8.12.1.3) Form of commodity

Select all that apply
☑ Secondary packaging

(8.12.1.4) Total volume of commodity sold to requesting member

3525

(8.12.1.5) Metric

Select from:
☑ Metric tons

(8.12.1.6) Third-party certification scheme

Chain-of-custody certification
☑ FSC Chain-of-Custody certification (any type)

(8.12.1.7) % of the total volume of commodity sold to requesting member that is certified

82.8

(8.12.1.8) Comment (optional)

Not applicable

Row 9

(8.12.1.1) Requesting member

Select from:

(8.12.1.2) Commodity

Select from:

☑ Timber products

(8.12.1.3) Form of commodity

Select all that apply

☑ Secondary packaging

(8.12.1.4) Total volume of commodity sold to requesting member

5630

(8.12.1.5) Metric

Select from:

☑ Metric tons

(8.12.1.6) Third-party certification scheme

Chain-of-custody certification

☑ FSC Chain-of-Custody certification (any type)

(8.12.1.7) % of the total volume of commodity sold to requesting member that is certified

67.3

(8.12.1.8) Comment (optional)

Not applicable

Row 10

(8.12.1.1) Requesting member

Select from:

(8.12.1.2) Commodity

Select from:
☑ Timber products

(8.12.1.3) Form of commodity

Select all that apply
☑ Secondary packaging

(8.12.1.4) Total volume of commodity sold to requesting member

6453

(8.12.1.5) Metric

Select from:
☑ Metric tons

(8.12.1.6) Third-party certification scheme

Chain-of-custody certification

☑ FSC Chain-of-Custody certification (any type)

(8.12.1.7) % of the total volume of commodity sold to requesting member that is certified

49.4

(8.12.1.8) Comment (optional)

Not applicable

Row 11

(8.12.1.1) Requesting member

Select from:

(8.12.1.2) Commodity

Select from:

☑ Timber products

(8.12.1.3) Form of commodity

Select all that apply

☑ Paper

(8.12.1.4) Total volume of commodity sold to requesting member

15221

(8.12.1.5) Metric

Select from:

☑ Metric tons

(8.12.1.6) Third-party certification scheme

Chain-of-custody certification

☑ FSC Chain-of-Custody certification (any type)

(8.12.1.7) % of the total volume of commodity sold to requesting member that is certified

70

(8.12.1.8) Comment (optional)

Not applicable

Row 12

(8.12.1.1) Requesting member

Select from:

(8.12.1.2) Commodity

Select from:

☑ Timber products

(8.12.1.3) Form of commodity

Select all that apply

☑ Paper

(8.12.1.4) Total volume of commodity sold to requesting member

50835

(8.12.1.5) Metric

Select from:

☑ Metric tons

(8.12.1.6) Third-party certification scheme

Chain-of-custody certification

☑ FSC Chain-of-Custody certification (any type)

(8.12.1.7) % of the total volume of commodity sold to requesting member that is certified

81

(8.12.1.8) Comment (optional)

Not applicable

Row 13

(8.12.1.1) Requesting member

Select from:

(8.12.1.2) Commodity

Select from:

☑ Timber products

(8.12.1.3) Form of commodity

Select all that apply

☑ Secondary packaging

(8.12.1.4) Total volume of commodity sold to requesting member

827

(8.12.1.5) Metric

Select from:

☑ Metric tons

(8.12.1.6) Third-party certification scheme

Chain-of-custody certification

☑ FSC Chain-of-Custody certification (any type)

(8.12.1.7) % of the total volume of commodity sold to requesting member that is certified

0

(8.12.1.8) Comment (optional)

Not applicable

Row 14

(8.12.1.1) Requesting member

Select from:

(8.12.1.2) Commodity

Select from:

☑ Timber products

(8.12.1.3) Form of commodity

Select all that apply

☑ Secondary packaging

(8.12.1.4) Total volume of commodity sold to requesting member

48722

(8.12.1.5) Metric

Select from:

☑ Metric tons

(8.12.1.6) Third-party certification scheme

Chain-of-custody certification

☑ FSC Chain-of-Custody certification (any type)

(8.12.1.7) % of the total volume of commodity sold to requesting member that is certified

100

(8.12.1.8) Comment (optional)

Not applicable

[Add row]

(8.13) Does your organization calculate the GHG emission reductions and/or removals from land use management and land use change that have occurred in your direct operations and/or upstream value chain?

	GHG emissions reductions and removals from land use management and land use change calculated
Timber products	*Select from:* ☑ Yes, and willing to share details with requesting CDP Supply Chain members

[Fixed row]

(8.13.1) Provide details on the actions your organization has taken in its direct operations and/or upstream value chain that have resulted in reduced GHG emissions and/or enhanced removals.

Row 1

(8.13.1.1) Commodity

Select from:

☑ Timber products

(8.13.1.2) Description of actions

Issues related to climate change are part of the organization's sustainability policy and objectives. Klabin has a specific corporate area of Sustainability and Environment that has as one of its objectives the day-to-day management of the issue with the responsibility of monitoring global and national climate agendas and mapping their related risks and opportunities. Klabin was the first pulp and paper company in the Southern Hemisphere to obtain, in 1998, the FSC certification which attests to the best practices of sustainable forest management. The forest base is one of its most important assets with more than 374 thousand hectares of planted forest with pine and eucalyptus for pulp production. Klabin maintains a further 316 thousand hectares of native forests destined for conservation. It is pioneer in the adoption of forest management in mosaic concept - a system that merges planted forests and preserved native forests, contributes to biodiversity, soil and water conservation. The 2023 inventory calculated 15.9 million tCO2e of carbon sequestration and storage by our forests (planted and native).

(8.13.1.3) CO2e reductions and removals achieved from base year (metric tons CO2e)

15898900

(8.13.1.4) Base year

2023

(8.13.1.5) Emissions accounting boundary

Select from:

☑ Included in the corporate GHG inventory boundary

(8.13.1.6) Scope

Select from:

☑ Scope 1

(8.13.1.7) Emissions accounting methodology and standards

Select all that apply

☑ The GHG Protocol for Project Accounting

(8.13.1.8) Explain calculation

The greenhouse gas inventory calculation was based on the Brazilian GHG Protocol methodology. The forest base is one of its most important assets with more than 374 thousand hectares of planted forest with pine and eucalyptus for pulp production. Klabin maintains a further 316 thousand hectares of native forests destined for conservation. It is pioneer in the adoption of forest management in mosaic concept - a system that merges planted forests and preserved native forests, contributes to biodiversity, soil and water conservation. The 2023 inventory calculated 15.9 million tCO2e of carbon sequestration and storage by our forests (planted and native). [Add row]

(8.14) Indicate if you assess your own compliance and/or the compliance of your suppliers with forest regulations and/or mandatory standards, and provide details.

(8.14.1) Assess legal compliance with forest regulations

Select from:

☑ Yes, from both suppliers and owned/managed/controlled land

(8.14.2) Aspects of legislation considered

Select all that apply

☑ Labor rights

☑ Land use rights

☑ Third parties' rights

☑ Environmental protection

☑ Human rights protected under international law

☑ Tax, anti-corruption, trade and customs regulations

☑ Forest-related rules, including forest management and biodiversity conservation, where directly related to wood harvesting

☑ The principle of free, prior and informed consent (FPIC), including as set out in the UN Declaration on the Rights of Indigenous Peoples

(8.14.3) Procedure to ensure legal compliance

Select all that apply

☑ Certification

☑ Third party tools

☑ First party audits

☑ Third party audits

☑ Second party audits

☑ Third party databases

☑ Ground-based monitoring

☑ Remote sensing or other geospatial monitoring

☑ Other, please specify **:CAR database; Internal monitoring; National tools and databases; Satellite imagery; External consultants; Independent audits; Supplier documentation; Supplier audits.**

(8.14.4) Indicate if you collect data regarding compliance with the Brazilian Forest Code

Select from:

☑ Yes

(8.14.5) Please explain

The sustainable forest management is the most important part of our risk control, therefore the compliance to Brazilian Forest Code and other regulations must be concerned to ensure the lowest financial, operational and legal risk for the company. The company's legal area continuously monitors and maps these regulations; and internal tools are used in this process. As part of Klabin's Sustainability Policy, Forest Certification guidelines are covered and the organization is committed to continuously compliance them. FSC (in all units) and Cerflor/PEFC (Paraná unit) are implemented due to their importance to forestry business. Klabin's stakeholders internationally recognize them, what contributes to risk management security and credibility. In 2023, 84% of total raw material used for process was 100% FSC, 48% own wood from certified Klabin areas (Forest Management Certificated) and 36% of wood purchased from FSC certified third parties (Forest Management Certificated or Chain-of-Custody). The other 16% refers to FSC Controlled Wood. Annually, forestry unit is audited by third parties regarding the Principles and Criteria. The first

principle of both certifications refers to compliance with the laws applicable to the country where the company operates. Klabin forest unit operates in three states of Brazil - Paraná, Santa Catarina and São Paulo. Moreover, the Chain of Custody (CoC) certification ensures that suppliers also undertake to comply with environmental laws, which is verified in the traceability of raw materials through field and documentary audits. - Klabin's GIS team is responsible for updating own, leased and third-party areas images through satellite monitoring and environmental adjustment. The images have a 3-meter resolution and are updated every two days. The information is available via printed maps, intranet, local support, digital cartographic database and mobility tools that enable monitoring compliance with environmental requirements. - Environmental team, composed by technicians and specialists, applies internal audits in own, leased and partnership areas to ensure that the operations are in accordance with legislation. Commercial team is responsible for applying audits in supplier's properties in accordance with the FSC Controlled Wood standard. All suppliers of the forestry units are audited on a quarterly basis. In 2023, 558 audits were realized, evaluating 156 areas of controlled wood in the states of Paraná and Santa Catarina. In case of non-compliance, Klabin suspends the audited supplier's wood supplying immediately and sends a recommendation of adequacy. Various information is collected from suppliers to verify whether they comply with federal legislation, in field or documentary audits, evaluating documents such as Rural Environmental Registry (CAR) database, evaluating the Legal Reserve (RL) and/or Permanent Protected Area (APP) declared and the Terms of Commitment of the Environmental Regularization Program (PRA). Furthermore, is evaluated if this area does not have conversion in tools like MapBiomas. Compliance with Brazilian Forest Code is concerned in Klabin's Sustainability Policy and risk management. The organization recognizes that positive performance on biodiversity can enhance a company's standing among outside stakeholders and create real business value. For this reason, the organization always considers investments in tools, methods or plans to assess forest regulations compliance. In 2020, Paraná's GIS & Measurement team included data from the land use collections and MapBiomas files in the work routine in 2022, it began to run in Santa Catarina. The data complement the prospecting and evaluating new forest assets. In addition to productive potential, assessing environmental issues are evaluated, in compliance with FSC forest certification principles. MapBiomas is a good source of geospatial information due to its scope and data quality. It is an intuitive and user-friendly tool for assessing deforestation alerts and changes in land use coverage. By 2023, about 603 hectares in 74 properties were detected in the alerts. Negotiations are suspended in these cases and the company's legal department is mobilized to guide the procedure. This information allowed a safe complement in the environmental diagnostics of properties, resulting in free deforestation during the forestry processes, safeguarding Klabin's forestry businesses. Klabin is recognized for the environmental compliance. It is pioneer in adopting the mosaic technique - planted forests interspersed with native forests for conservation. This contributes to forming ecological corridors that enable the coexistence and transit of native fauna in their natural habitat. In addition to directly contributing to the protection of soil, water and biodiversity. More than 42% of Klabin's forest areas are designed to conservation – about 316 thousand hectares in southern Brazil.
[Fixed row]

(8.15) Do you engage in landscape (including jurisdictional) initiatives to progress shared sustainable land use goals?

	Engagement in landscape/jurisdictional initiatives
	Select from: ☑ Yes, we engage in landscape/jurisdictional initiatives

[Fixed row]

(8.15.1) Indicate the criteria you consider when prioritizing landscapes and jurisdictions for engagement in collaborative approaches to sustainable land use and provide an explanation.

(8.15.1.1) Criteria for prioritizing landscapes/jurisdictions for engagement

Select all that apply

☑ Response to regulation

☑ Risk of biodiversity loss

☑ Current and future sourcing risk

☑ Organization has operational presence in area

☑ Opportunity for increased human well-being in area

☑ Opportunity to protect and restore natural ecosystems

☑ Opportunity to increase market access for smallholders and local communities

☑ Risk of deforestation, forests/land degradation, or conversion of other natural ecosystems

(8.15.1.2) Explain your process for prioritizing landscapes/jurisdictions for engagement

To effectively address company deforestation and sustainability targets and to secure supply chain operations, Klabin need to actively engage in the landscapes/jurisdictions where it operates. In 2023, Klabin purchased wood from 288 suppliers distributed in over 100 municipalities through São Paulo, Paraná, Santa Catarina and Rio Grande do Sul states of Brazil. Klabin has the commitment to exchange knowledge with independent producers, such as Legal and Social Forest Programs, that have assisted rural producers distributed in more than 70 municipalities, since 2005. Main objective is to help them use their lands sustainably by encouraging the recovery of native forest remnants; silviculture with responsible methods; and decrease the rural exodus, helping to improve regional development. This kind of initiative reduces the risk of non-compliance with sourcing policies (Klabin's Wood Purchase Policy guide to best efforts to avoid purchasing wood from illegal logging; and due diligence system to ensure traceability). This ensures that the engagement and type of intervention integrates with the company's sustainability strategy and risk assessment approach.
[Fixed row]

(8.15.2) Provide details of your engagement with landscape/jurisdictional initiatives to sustainable land use during the reporting year.

Row 1

(8.15.2.1) Landscape/jurisdiction ID

Select from:

☑ LJ1

(8.15.2.2) Name of initiative

Plant with Klabin Program

(8.15.2.3) Country/area

Select from:

☑ Brazil

(8.15.2.4) Name of landscape or jurisdiction area

Klabin has its own and managed (leased and partnership) forest production of eucalyptus and pine, equivalent to 374 thousand hectares distributed in Paraná, Santa Catarina and São Paulo states of Brazil.

(8.15.2.5) Attach public information about the initiative (optional)

Site_PCK.pdf

(8.15.2.6) Indicate if you can provide the size of the area covered by the initiative

Select from:

☑ Yes

(8.15.2.7) Area covered by the initiative (ha)

10335

(8.15.2.8) Type of engagement

Select all that apply

☑ Convener: Leads or facilitates the design, set-up, and high-level management of the initiative

☑ Partner: Shares responsibility with other stakeholders to manage and implement actions.

☑ Funder: Provides full or partial financial resources

(8.15.2.9) Engagement start year

2020

(8.15.2.10) Engagement end year

Select from:
☑ Not defined

(8.15.2.11) Estimated investment over the project period

55163832

(8.15.2.12) Landscape goals supported by engagement

Environmental
☑ Carbon offsetting
☑ Decreased ecosystem degradation rate
☑ Biodiversity protected and/or restored
☑ Increased and/or maintained protected areas
☑ Natural ecosystems conserved and/or restored
☑ Ecosystem services maintained and/or enhanced
☑ Improved rate of carbon sequestration (e.g., through restoration)
☑ Reduced emissions from land use change and/or agricultural production
☑ Avoided deforestation/conversion of other natural ecosystems and/or decreased degradation rate

Governance
☑ Governance forums that represent all relevant stakeholders in place and maintained
☑ Promotion of transparency, participation, inclusion, and coordination in landscape policy, planning, and management

Social

☑ Increased rate of employment in the rural economy

☑ Improved business models that enable inclusion (including smallholders)

☑ Improved capacity for community engagement in multi-stakeholder processes

☑ Implementation of livelihood activities/practices that reduce pressure on forests

☑ Rights to land and resources recognized and protected, and related conflicts reduced

☑ Ensuring local communities and smallholders benefit from the outcomes of landscape/jurisdictional initiative

Production

☑ Increased uptake of certification

☑ Improved and/or maintained soil health

☑ Reliable commodity traceability and landscape monitoring/data collection system

☑ Multi-commodity production promoted and farmer/supplier dependency on individual companies reduced

☑ Increased adoption of sustainable production practices (e.g., input use efficiency and water management practices)

☑ Sustainability of other natural resource-based production sectors promoted to and recognized by relevant stakeholders (e.g. mining, natural forest management and non-extractive uses)

(8.15.2.13) Organization actions supporting initiative

Participate in planning and multi-stakeholder alignment

☑ Collaborate on management/land use planning in the landscape/jurisdiction

☑ Collaborate on landscape sustainability assessments through participatory mapping

☑ Identify and act on opportunities for pre-competitive collaboration with your sector

☑ Collaborate on establishing and managing monitoring system for deforestation, natural ecosystem conversion and/or degradation

☑ Identify and map stakeholders (including vulnerable and/or marginalized groups) and encourage their engagement in multi-stakeholder processes

☑ Help establish effective mechanisms for undertaking human rights due diligence, risk management, monitoring, verification, and grievance resolution

Build community and multi-stakeholder capacities

☑ Communicate externally the business case for investing in landscapes/jurisdiction

☑ Engage stakeholders on importance of conservation, restoration and/or rehabilitation

☑ Promote and implement climate change adaptation and mitigation activities

☑ Share information on supplier non-compliance, value chain mapping and traceability with other stakeholders in the landscape/jurisdiction

☑ Support communities and smallholders in gaining access to incentives (e.g. support achieving certification, group formation, getting land title, packaging access to loans, preferential sourcing etc.)

Enhance government and capacity

☑ Support enforcement of land-use and/or zoning plans

Support and incentivize sustainable production and community land use practices

☑ Capacity building for farmers, smallholders and local communities to implement good agricultural practices (including improved efficiency, crop diversification and adoption of certification)

☑ Improve sustainability of waste management practices

Link value chain action to landscape/jurisdictional initiative through private sector collaboration

☑ Collaborate on commodity traceability

☑ Use preferential sourcing to support landscape/jurisdictional initiatives that are demonstrating progress

(8.15.2.14) Type of partners engaged in the initiative design and implementation

Select all that apply

☑ NGO and/or civil society

☑ Producers

☑ Other, please specify **:**Specialized consultancies

(8.15.2.15) Description of engagement

Jurisdictional approaches to sustainable development are essential to address issues linked to deforestation. Sustainable investments to finance business in the region have a fundamental role once it brings opportunities for environmental awareness with partner producers and neighbours. Klabin is a forest-based company recognized for its responsible management, committed to biodiversity. The company works collaboratively with supply chain, driven by regional development. A great highlight in this sense is “Plant with Klabin” Program. Launched in 2020, is an improved version of the Forest Fostering Program. In order to continuously improve the processes, it was established a new commercial policy in “Plant with Klabin” Program. The goal is to strengthen relationship with suppliers, seeking loyalty through fair trade. The main point added in this new policy: price guarantee and condition for property certification. The aim of this new approach is to meet demands and needs of suppliers offering three new types of partnership: exchange of inputs and services, exchange of seedlings and price guarantee. By 2020 to 2022, 115 partnerships were signed and 8.54 thousand hectares were negotiated in Paraná and Santa Catarina states. In 2023, 26 new partnerships were signed, and 1.7 k hectares negotiated. The Program is a partnership between the company and rural producers with properties located up to 150 km away from the factories. The basis

of the program's support is adding idle areas to production process, generating income, recovering degraded areas, promoting crop-livestock and forest integration. Because of this work, is predicted reduction of rural exodus of small producers and distribution of income and benefits generated by reforestation. All "Plant with Klabin" partners receive the benefit to join in other two Klabin's initiatives: Legal Forest and Forest Suppliers Certification programs. The first one aims to help partners to adequate their properties in accordance with Brazilian Forest Code; and the second program goal is to assist partners to obtain FSC certification for their forest management.

(8.15.2.16) Collective monitoring framework used to measure progress towards landscape goals and actions

Select from:

☑ Yes, progress is collectively monitored using a shared external framework, please specify :https://esg.klabin.com.br/

(8.15.2.17) State the achievements of your engagement so far and how progress is monitored

Plant with Klabin served 141 partners in 2020 to 2023 and the Forest Supplier Certification helped 1,092 suppliers (Plant with Klabin partners and others) to obtain certification. Both engagement initiatives contribute to the adjustment of these producers' legal compliance and to improvement of forestry operation practices, as Klabin exchanges its know-how with them. For environmental adequacy, they are directed to Legal Forest Program. This program comprises the planning rural properties, conservation, environmental education, and forest development in the state of Parana since 2008, and Santa Catarina since 2005. Small-medium-sized farmers, who take part in this group, receive native seedlings to restore their Permanent Protection Areas and Legal Reserves. The program has over 1,421 registered properties, donated over 1.8 MM seedlings and mapped over 29 k native areas over 100 municipalities. Because of the success of this program, there was an opportunity to expand engagement beyond forest commodity. The Social Forest Program was developed in 2015 to encourage family farming, which involves small farmers in Parana. It was extended to Santa Catarina in 2020. The initiative covers the stages of production, from environmental adequation to support for the marketing of food, through training, diversification, and cooperates. Held in partnership with Sebrae and the NGO Apremavi, with the support of the municipal governments, Social Forests has served more than 600 farms. Some of the results obtained during this period include 160 k native seedlings donated and over 2,390 hectares of PPA and LRs mapped; increased income for small family farms; increased food production; sales to new markets; reduced use of pesticides; the adoption of new technologies, and organized production. Restoration projects stablished in both programs helps to connect native areas creating ecological corridors between Klabin's areas and its neighbours. Properties land use is monitored in GIS tool and during field visits. As conclusion, Klabin helps partner producers to align production and environmental issues, contributing to landscape ecology in the region. By 2020 to 2023, a total of R 43 M were invested in the following initiatives to engage with landscape/jurisdictional approaches to sustainable land use in Paraná and Santa Catarina states: Plant with Klabin (R 43,015,600.00) Legal Forest (R 3,832,489.86) Forest Supplier Certification (R 8,315,742.33) R 55,163,832.00

(8.15.2.18) Claims made

Select from:

☑ Yes, we are making a claim

(8.15.2.19) Type of claim made

Select from:

☑ Both individual and collective

(8.15.2.20) Provide further details on your claim

The claim made is the same as the achievement stated in column 17. Plant with Klabin served 141 partners in 2020 to 2023 and the Forest Supplier Certification helped 1,092 suppliers (Plant with Klabin partners and others) to obtain certification. Both engagement initiatives contribute to the adjustment of these producers' legal compliance and to improvement of forestry operation practices, as Klabin exchanges its know-how with them. For environmental adequacy, they are directed to Legal Forest Program. This program comprises the planning rural properties, conservation, environmental education, and forest development in the state of Parana since 2008, and Santa Catarina since 2005. Small-medium-sized farmers, who take part in this group, receive native seedlings to restore their Permanent Protection Areas and Legal Reserves. The program has over 1,421 registered properties, donated over 1.8 MM seedlings and mapped over 29 k native areas over 100 municipalities. Because of the success of this program, there was an opportunity to expand engagement beyond forest commodity. The Social Forest Program was developed in 2015 to encourage family farming, which involves small farmers in Parana. It was extended to Santa Catarina in 2020. The initiative covers the stages of production, from environmental adequation to support for the marketing of food, through training, diversification, and cooperates. Held in partnership with Sebrae and the NGO Apremavi, with the support of the municipal governments, Social Forests has served more than 600 farms. Some of the results obtained during this period include 160 k native seedlings donated and over 2,390 hectares of PPA and LRs mapped; increased income for small family farms; increased food production; sales to new markets; reduced use of pesticides; the adoption of new technologies, and organized production. Restoration projects stablished in both programs helps to connect native areas creating ecological corridors between Klabin's areas and its neighbours.
[Add row]

(8.15.3) For each of your disclosed commodities, provide details on the disclosure volume from each of the landscapes/jurisdictions you engage in.

Row 1

(8.15.3.1) Landscape/jurisdiction ID

Select from:

☑ LJ1

(8.15.3.2) Does any of your produced and/or sourced commodity volume originate from this landscape/jurisdiction, and are you able/willing to disclose information on this volume?

Select from:

☑ Yes, we do produce/source from this landscape/jurisdiction, and we are able/willing to disclose volume data

(8.15.3.3) Commodity

Select from:

☑ Timber products

(8.15.3.4) % of disclosure volume from this landscape/jurisdiction

100
[Add row]

(8.16) Do you participate in any other external activities to support the implementation of policies and commitments related to deforestation, ecosystem conversion, or human rights issues in commodity value chains?

Select from:

☑ Yes

(8.16.1) Provide details of the external activities to support the implementation of your policies and commitments related to deforestation, ecosystem conversion, or human rights issues in commodity value chains

Row 1

(8.16.1.1) Commodity

Select all that apply

☑ Timber products

(8.16.1.2) Activities

Select all that apply

☑ Engaging with communities

☑ Engaging with non-governmental organizations

☑ Other, please specify :Involved in multi-partnership or stakeholder initiatives

(8.16.1.3) Country/area

Select from:

☑ Brazil

(8.16.1.4) Subnational area

Select from:

☑ Please specify :Southern Brazil, Paraná, Santa Catarina, Rio Grande do Sul e São Paulo states

(8.16.1.5) Provide further details of the activity

Klabin management is guided towards Sustainable Development. Commitments to national/international organizations reinforce sustainability governance. Klabin is signatory to UN Global Compact and in 2019, participated in the Global Compact Brazil Network event, to debate Brazilian private sector initiatives in the SDGs application. Tenth item of Klabin's Sustainability Policy is: "Company may observe the UN SDGs and guide their actions and investments to strengthen this agenda (...)". Annually, governance specialists review it and align the content to company's materiality, outlining strategies to establish goals and commitments in its business. All the following engagements respond to SDG 17 - partnerships and goals for sustainable development. Klabin was the first in the Southern Hemisphere pulp and paper sector to be certified for sustainable forest management, in 1998. In 2017, Paraná unit also earned the PEFC certificate to reinforce the forest-related commitment, recognized by stakeholders, Santa Catarina earned the PEFC certificate in 2023. FSC is the most internationally credible forest certification system. In partnership with it and other companies, Klabin had worked to develop the Brazilian National Standard for the planted forest, focused on the smallholders - SLIMF. In 2023, Klabin's Group Certification Program has benefited 240 producers in Paraná and Santa Catarina states. This engagement plays a vital role in the company's environmental strategy, as it contributes to the transition of suppliers from Controlled Wood to Certified Wood, in order to guarantee the log-term supply with reliable sources; environmentally and socially responsible; considering regional development. In addition, Klabin participates in committees intended to influence public policies on forest-related issues, such as: (i) Brazilian Alliance on Climate, Forests and Agriculture, a multi-sector alliance; (ii) Forest Dialogue, a platform to engage stakeholders in ESG initiatives; (ii) brazilian Forestry Research Institute (IPEF) to discuss Forestry Certification and Monitoring of Water Resources; and (iv) Society for Forest Investigations (SIF) being part of the Restoration Technical Group. SIF is a partnership between the Federal University of Viçosa (UFV) and the main forestry companies in Brazil, to support the development of research and professional qualification through scientific basis.

Row 2

(8.16.1.1) Commodity

Select all that apply

☑ Timber products

(8.16.1.2) Activities

Select all that apply

☑ Engaging with communities

☑ Engaging with non-governmental organizations

☑ Other, please specify :Involved in multi-partnership or stakeholder initiatives

(8.16.1.3) Country/area

Select from:

☑ Brazil

(8.16.1.4) Subnational area

Select from:

☑ Please specify :Southern Brazil, Paraná, Santa Catarina, Rio Grande do Sul e São Paulo states

(8.16.1.5) Provide further details of the activity

The commitment to Local Development is part of Klabin's essence and is recorded in our Sustainability Policy. It is promoted through the involvement of communities, political decision-makers and governments, enabling the construction of economic, environmental and social agendas with the participation of different stakeholders. In 2023, the social forums Angatuba in Motion, Sustainable Development Forum of Angatuba (SP), and Goiana in Action, Sustainable Development Forum of Goiana (PE), were promoted by the Company. The project foresees the exercise of participatory public management, for the creation and monitoring of local public policies, improving the understanding of the responsibilities of city halls and city councils of the municipalities covered. Also with the aim of fostering participatory public management, Klabin promotes the Public Management Support Program with 14 municipalities (Telêmaco Borba, Ortigueira, Imbaú, Sapopema, Tibagi, Reserva, Curiúva, Rio Negro, Ventania – in Paraná; Otacílio Costa, Correia Pinto, Lages – in Santa Catarina; Angatuba, in São Paulo, and Goiana, in Pernambuco). In 2023, these municipalities had their Multi-Year Plans monitored by the public management with the support of specialized consultancy offered by the Company, in addition to the assessment of the effectiveness of the implementation of the actions. Another Klabin initiative that stood out in 2023 was the update of the Territorial 2030 website (https://territorio2030.app.br/home), which contains the indicators that make up the Social Progress Index (IPS) for the territories of Campos Gerais, in Paraná, and Planalto Serrano, in Santa Catarina, regions where Klabin operates. There are 56 indicators distributed across three dimensions: Basic Human Needs, Foundations of Well-being and Opportunities, dimensions that relate to the social programs implemented in these regions by the Company. These indicators assess 12 municipalities in Paraná and 15 in Santa Catarina. The 2023 results show that the average in both states has improved. In 2022, in Paraná, the average was 60.3, rising to 62.6 in 2023. In Santa Catarina, the average rose from 58.6 to 59.5 in the same reference years.
[Add row]

(8.17) Is your organization supporting or implementing project(s) focused on ecosystem restoration and long-term protection?

Select from:

☑ Yes

(8.17.1) Provide details on your project(s), including the extent, duration, and monitoring frequency. Please specify any measured outcome(s).

Row 1

(8.17.1.1) Project reference

Select from:

☑ Project 1

(8.17.1.2) Project type

Select from:

☑ Forest ecosystem restoration

(8.17.1.3) Expected benefits of project

Select all that apply

☑ Improvement to soil health

☑ Compliance with regulation

☑ Compliance with certification

☑ Reduce/halt biodiversity loss

☑ Increase in carbon sequestration

☑ Improvement to sustainability of production practices

☑ Restoration of natural ecosystem(s)

☑ Improvement to environmental regulation

☑ Improvement of water availability and quality

☑ Net gain in biodiversity and ecosystem integrity

☑ Creation of green jobs and sustainable livelihoods

(8.17.1.4) Is this project originating any carbon credits?

Select from:

☑ Yes

(8.17.1.5) Description of project

Since 2005, Klabin has helped landowners in Paraná (PR) and Santa Catarina (SC) states to use their lands sustainably by encouraging the recovery of native forest remnants; silviculture with responsible methods; and decrease the rural exodus, helping to improve regional development through “Legal Forest” Program (conducted in partnership with the NGO Apremavi). Currently, Klabin uses technologies, such as satellite and drone images, to assessment and monitoring of areas. The goal is to keep up with advances and continually improve the processes in order to obtain quality data for decision-making, for example: the priorities areas for restoration. From that, Klabin foresees investments in the implantation of seedlings of native species in parallel with practices for conducting regeneration. Klabin has direct and indirect interference in the socioeconomic dynamics of the communities in the municipalities where operate. Thus, the organization invests voluntarily in the territory, in order to benefit the entire population with initiatives for local development, education, culture and environmental education. Since 2008, the program (Forest Fostering /"Plant with Klabin") has been supported by "Legal Forest" Program, a partnership between Klabin and the environmental NGO Apremavi. The objective is to promote environmental suitability of properties. Restoration of Permanent Preservation Areas (PPA) and Legal Reserves (LR) promotes biodiversity maintenance of native areas, forming ecological corridors that connect to Klabin’s areas and consequently 1,421 property-owners, since 2008 to 2023. Furthermore, the sum of good practices opened up the possibility for the Forest Supplier Certification Program in both states. In 2023, a total of 240 suppliers were certified: approximately 107 thousand hectares. Change the standard of Controlled Wood to Certified Wood is interesting for Klabin to ensure a long-term purchasing of sustainable raw material. Also it is interesting for the smallholders, once their product gain value because of certification.

(8.17.1.6) Where is the project taking place in relation to your value chain?

Select all that apply

☑ Project based in sourcing area(s)

(8.17.1.7) Start year

2005

(8.17.1.8) Target year

Select from:

☑ Indefinitely

(8.17.1.9) Project area to date (Hectares)

57551

(8.17.1.10) Project area in the target year (Hectares)

50000

(8.17.1.11) Country/Area

Select from:

☑ Brazil

(8.17.1.12) Latitude

-24.450455

(8.17.1.13) Longitude

-50.866636

(8.17.1.14) Monitoring frequency

Select from:

☑ Six-monthly or more frequently

(8.17.1.15) Total investment over the project period (currency)

12000000

(8.17.1.16) For which of your expected benefits are you monitoring progress?

Select all that apply

☑ Creation of green jobs and sustainable livelihoods

☑ Improvement to sustainability of production practice

☑ Reduce/halt biodiversity loss

☑ Restoration of natural ecosystem(s)

(8.17.1.17) Please explain

The "Legal Forest" Program was launched in Santa Catarina in 2005; and in Paraná in 2008. Its development is uninterrupted. A joint venture between the Association for the Environment and Life's Preservation (Apremavi) and Klabin. The program aims to restore supplier's PPAs and LRs in accordance with Brazilian Forest Code. The majority of small farmers attended by the program participate in the company's Forest Partnership/"Plant with Klabin" Program. The essence is an

*encouragement to rural property planning, with adaptation to the laws in force, consequently promoting environmental education and conservation, using the concept of "Legal Ownership". Both programs combine income generation and the diversification of production activities to the restoration of Permanent Preservation Areas (APPs), in connection with watersheds, streams and rivers. Biodiversity is preserved through the maintenance of native areas, forming ecological corridors. Restoration monitoring is made six-monthly or more frequently by the program's technicians. During the 18 years of program (2005 - 2023) more than 1,8 MM native seedlings have already been distributed among 1,421 property owners; a total of 57,551 hectares of PPAs and LRs were demarcated to preservation, conservation and restoration. Using as base the value of 10.85 tCO2eq / ha calculated according to the CO2 sequestration of the native forests in relation to a total area that a Klabin has (Brazilian GHG Protocol Metodology used): 57,551 ha * 10.85 tCO2 / ha 624,428.35 tCO2eq. This amount of CO2 is also contemplated in the CO2 removal calculation for land use management. By 2005 to 2023, more than R 12 M were invested in the Legal Forest Program.*

Row 3

(8.17.1.1) Project reference

Select from:

☑ Project 2

(8.17.1.2) Project type

Select from:

☑ Forest ecosystem restoration

(8.17.1.3) Expected benefits of project

Select all that apply

☑ Improvement to soil health

☑ Compliance with regulation

☑ Compliance with certification

☑ Restoration of natural ecosystem(s)

☑ Improvement to environmental regulation

☑ Improvement to sustainability of production practices

☑ Improvement of standard of living, especially for vulnerable and/or marginalized groups

(8.17.1.4) Is this project originating any carbon credits?

Select from:

☑ Yes

(8.17.1.5) Description of project

Klabin has direct and indirect interference in the socioeconomic dynamics of the communities in the municipalities where operate. Thus, the organization invests voluntarily in the territory, in order to benefit the entire population from initiatives in the areas of local development, education, culture and environmental education. The "Social Forest" Program, developed since 2015, is a program that encourages family farming, staying in the countryside, sustainable development of the production and consumption chain, and entrepreneurship among farmers in Paraná and Santa Catarina. It is a Klabin initiative developed in partnership with Sebrae and the NGO Association for the Preservation of the Environment and Life (Apremavi). The initiative encourages family farming and assists small rural producers in all stages of production, from environmental adaptation to the commercialization of products in local markets. In addition, it offers training actions involving agricultural management, livestock, organic production and environmental education, among others. The program started in the state of PR and in 2020 it was extended to the state of Santa Catarina (SC). In 2022, we highlight support for progress in regularizing the Municipal Inspection Service (SIM) for Products of Animal Origin in the municipalities of Tibagi, Ventania, Imbaú and Telêmaco Borba (PR); support to municipalities to better comply with the public notice of the National School Feeding Program (PNAE) and the expansion to the municipalities of Palmeira and Ponte Alta in Santa Catarina. Another highlight of the program is the Strategic Planning of the Family Farming Cooperatives Centre Centro Norte Paraná, formed by 5 cooperatives; and the continuation of the allocation of fruit and vegetables to different markets, including the Fair of Good by the Municipality of Telêmaco Borba, which makes it possible to exchange recyclable waste for vegetables; and the acquisition of food from these rural producers for the company's restaurants and for feeding the animals under the care of Klabin's Ecological Park. For eight years (2015-2023), more than 907 rural properties participated in this Program; up to 60% increase in the income of small rural producers dedicated to family farming; increase in food production and sale to new markets; and reduction in the use of pesticides.

(8.17.1.6) Where is the project taking place in relation to your value chain?

Select all that apply

☑ Project based in sourcing area(s)

(8.17.1.7) Start year

2015

(8.17.1.8) Target year

Select from:

☑ Indefinitely

(8.17.1.9) Project area to date (Hectares)

2654

(8.17.1.10) Project area in the target year (Hectares)

3000.0

(8.17.1.11) Country/Area

Select from:

☑ Brazil

(8.17.1.12) Latitude

-24.450455

(8.17.1.13) Longitude

-50.866636

(8.17.1.14) Monitoring frequency

Select from:

☑ Six-monthly or more frequently

(8.17.1.15) Total investment over the project period (currency)

9061439

(8.17.1.16) For which of your expected benefits are you monitoring progress?

Select all that apply

☑ Compliance with certification

☑ Restoration of natural ecosystem(s)

(8.17.1.17) Please explain

The "Social Forest" Program has been developed since 2015 in partnership with the NGO Apremavi and the entity Sebrae. The essence of the program is to promote technical assistance and income generation and diversify production. The small producers assisted work with other forms of income (other than planted forest): olericulture, livestock, fruit production, among others. The Program highlights in eight years (2015-2023) are: more than 907 rural properties assisted; up to 60% increase in the income of small rural producers dedicated to family farming; 2,654 hectares of PPA and LR demarcated; 1,187 springs demarcated; 162 k seedlings

*planted. Restoration monitoring is made six-monthly or more frequently by the program's technicians. A socioeconomic and environmental survey was applied to a group of 60 program participants. The main result is more than 80% of small producers recognize the benefits in environmental aspects, such as the quality of the water in the springs. Using as base the value of 10.85 tCO2eq / ha calculated according to the CO2 sequestration of the native forests in relation to a total area that a Klabin has (Brazilian GHG Protocol Methodology used): 2,654 ha * 10.85 tCO2 / ha 28,795.9 tCO2eq. This amount of CO2 is also contemplated in the CO2 removal calculation for land use management. By 2015 to 2023, more than R 9 MM were invested in the Social Forest Program.*
[Add row]

C9. Environmental performance - Water security

(9.1) Are there any exclusions from your disclosure of water-related data?

Select from:

☑ No

(9.2) Across all your operations, what proportion of the following water aspects are regularly measured and monitored?

Water withdrawals – total volumes

(9.2.1) % of sites/facilities/operations

Select from:

☑ 100%

(9.2.2) Frequency of measurement

Select from:

☑ Continuously

(9.2.3) Method of measurement

The method of measurement is based direct monitoring using "in-place" flow meters.

(9.2.4) Please explain

Klabin measures 100% of water withdrawals - total volumes to ensure company will not withdraw higher volumes than the source regenerative capacity to ensure future availability of the resource. Klabin industrial units monitoring their water withdrawals continuously basis using "in-place" flow meters. After that, the monthly data is consolidated in the SAP system or other Klabin's internal database where we generate the reports. Due to environmental and water permits figures are reported by annually basis to the authorities. For our company, 'units' refers to our factories. Our answer in this line is related to all our factories.

Water withdrawals – volumes by source

(9.2.1) % of sites/facilities/operations

Select from:

☑ 100%

(9.2.2) Frequency of measurement

Select from:

☑ Continuously

(9.2.3) Method of measurement

The water sources are known and recorded for all our units. The method of measurement is based direct monitoring using "in-place" flow meters. The flow meters are installed in rivers points of withdrawal when the unit uses surface water use in its operations, in each water well when the unit uses groundwater and, in third party water connections existing in the unit when this is the source used.

(9.2.4) Please explain

100% of water withdrawals by source is measured because it is important to company knows how its impact in each source is and how the company can improve the water quantity and quality available in each source. Klabin uses surface water from rivers (more than 99% of total water withdrawals), renewable groundwater and third party sources. The water volume by source is monitored continuously basis using "in-place" flow meters. After that, the monthly data is consolidated in the SAP system or other Klabin's internal database where we generate the reports. Due to environmental and water permits figures are reported by annually basis to the authorities. For our company, 'units' refers to our factories. Our answer in this line is related to all our factories.

Water withdrawals quality

(9.2.1) % of sites/facilities/operations

Select from:

☑ 100%

(9.2.2) Frequency of measurement

Select from:

☑ Daily

(9.2.3) Method of measurement

Water withdrawal quality is monitored in our units using collect to water samples and lab testing. The parameters measured include BOD, COD, P, N, TSS, temperature. For example, BOD and COD concentrations is measured according to standards APHA Standards Methods (5220).

(9.2.4) Please explain

Klabin monitors daily 100% of the water withdrawals quality (e.g. BOD, COD, P, N, TSS, temperature). Klabin is measuring the quality of its water withdrawals for all its operations on a daily basis. The data are consolidated by local database on a monthly basis. Due to environmental and water permits figures are reported by annually basis to the authorities. For our company, 'units' refers to our factories. Our answer in this line is related to all our factories.

Water discharges – total volumes

(9.2.1) % of sites/facilities/operations

Select from:

☑ 100%

(9.2.2) Frequency of measurement

Select from:

☑ Continuously

(9.2.3) Method of measurement

The method of measurement is based in using "in-place" flow meters to measure discharge volumes continuously.

(9.2.4) Please explain

Klabin measures 100% of total volume of water discharged. The total volumes of water discharged in all sources is monitored continuously basis. After that, the monthly data is consolidated in the SAP system or other Klabin's internal database where we generate the reports. Due to environmental and water permits figures are reported by annually basis to the authorities. 100% of this measured volume is treated effluent, complying with all applicable legislation, and the best effluent treatment practices. In addition to monitoring the water flow, the quality of the treated effluent is monitored on a daily basis to guarantee compliance with legal requirements.

Water discharges – volumes by destination

(9.2.1) % of sites/facilities/operations

Select from:

☑ 100%

(9.2.2) Frequency of measurement

Select from:

☑ Continuously

(9.2.3) Method of measurement

We use "in-place" flow meters to measure discharge volumes continuously in each destination. The destination of the discharge is known and recorded for all our units.

(9.2.4) Please explain

Klabin measures 100% of water discharged by destination (e.g. surface water, irrigation of land, for recycling & reuse or third party destinations). The volume discharged in all sources is monitored on continuously basis. After that, the monthly data is consolidated in the SAP system or other Klabin's internal database where we generate the reports. Due to environmental and water permits figures are reported by annually basis to the authorities. We are committed to reducing water pollution. The monitoring the volumes of our discharges by destination is relevant because we need to know how is water discharges impact and how we can improve the water quality available in each destination.

Water discharges – volumes by treatment method

(9.2.1) % of sites/facilities/operations

Select from:

☑ 100%

(9.2.2) Frequency of measurement

Select from:

☑ Continuously

(9.2.3) Method of measurement

The method of measurement in Klabin is based in using "in-place" flow meters to measure discharge volumes continuously at its units. Klabin keeps records of the methods and water discharge treatment level at all its units.

(9.2.4) Please explain

Klabin measures 100% of water discharged volumes by treatment method (eg. only physical treatment or physical and biological treatment). The frequency of monitoring is continuously. After that, the monthly data is consolidated in the SAP system or other Klabin's internal database where we generate the reports. Due to environmental and water permits figures are reported by annually basis to the authorities.

Water discharge quality – by standard effluent parameters

(9.2.1) % of sites/facilities/operations

Select from:

☑ 100%

(9.2.2) Frequency of measurement

Select from:

☑ Daily

(9.2.3) Method of measurement

Water discharge quality is monitored by standard parameters in our units using collect to water samples and lab testing. The key parameters measured include BOD, COD, P, N, TSS, temperature. For example, BOD and COD concentrations is measured according to standards APHA Standards Methods (5220).

(9.2.4) Please explain

Klabin monitors daily 100% of the water discharge quality (e.g., BOD, COD, P, N, TSS, temperature). Klabin is measuring the quality of its water discharged for all its operations on a daily basis. The data are consolidated by local database on monthly basis. These parameters monitored are considered part of the usual management for our units. Due to environmental and water permits figures are reported by annually basis to the authorities. 100% of this measured volume is treated effluent, complying with all applicable legislation, and following the best effluent treatment practices. In addition to monitoring the quality of the treated effluent, the water flow is monitored on a continuously basis to guarantee compliance with legal requirements.

Water discharge quality – emissions to water (nitrates, phosphates, pesticides, and/or other priority substances)

(9.2.1) % of sites/facilities/operations

Select from:

☑ 100%

(9.2.2) Frequency of measurement

Select from:

☑ Yearly

(9.2.3) Method of measurement

Emissions to water is monitored using "in-place" flow meters to measure discharge volumes and water samples are collected and lab testing to measure substances concentrations after effluent treatment process. Emissions to water by pollutant considers water discharge volumes x substances concentrations. The substances monitored include nitrates, cadmium, mercury, nickel, and other relevant substances.

(9.2.4) Please explain

We are committed to ensure that quality and quantity of discharged water complies with standards and regulations. For this, we monitor 100% of our effluents and their quality parameters applicable to our business and required based on current legislation, including compounds such as cadmium, mercury, nickel, and other relevant substances to ensure legal compliance for treated effluents in all our industrial units. Klabin measures yearly the emissions to water of this substances in all its operations. The data are consolidated by local database after measurement. Due to environmental and water permits figures are reported by annually basis to the authorities. The monitoring the emission to water is relevant because we need to know how is water discharges impact and how we can improve the water quantity and quality which received our discharges. Proactively, some units perform water discharged quality monitors which frequency less than one year (semesterly).

Water discharge quality – temperature

(9.2.1) % of sites/facilities/operations

Select from:

☑ 100%

(9.2.2) Frequency of measurement

Select from:

☑ Continuously

(9.2.3) Method of measurement

We use sensors specifically designed to monitor temperature in wastewater and industrial effluent treatment applications. The online sensors (thermometers) are factories calibrated and regularly maintained.

(9.2.4) Please explain

Klabin continuously monitors and measures temperature of its wastewater released during and after wastewater treatment plant. Each unity controls the quality data of water discharged locally on daily basis. The consolidated data are registered by local database on monthly basis. Due to environmental and water permits figures are reported by annually basis to the authorities. For our company, 'units' refers to our factories. Our answer in this line is related to all our factories.

Water consumption – total volume

(9.2.1) % of sites/facilities/operations

Select from:

☑ 100%

(9.2.2) Frequency of measurement

Select from:

☑ Continuously

(9.2.3) Method of measurement

Water consumption is calculated continuously using a water balance which considers water withdrawals, evaporation from dryers, evaporation from wastewater treatment plants, water left in our end products and water discharges. Water withdrawals and water discharges are measured using "in-place" flow meters.

(9.2.4) Please explain

Klabin is committed to reduce water consumption at its operations. For this, Klabin calculates and monitors the total water consumption in all its operations and facilities. The water consumption is calculated by water withdrawals volumes minus water discharges volumes continuously. After that, the monthly data is

consolidated in the SAP system or other Klabin's internal database where we generate the reports. All Klabin's units monitor water consumption. For our company, 'units' refers to our factories.

Water recycled/reused

(9.2.1) % of sites/facilities/operations

Select from:

☑ 100%

(9.2.2) Frequency of measurement

Select from:

☑ Continuously

(9.2.3) Method of measurement

Water recycled/reused is measures by flow meters.

(9.2.4) Please explain

The use of water recycled/reused is vital to Klabin. 100% of water recycled/reuse is monitored continuously basis. The data is registered on the Klabin's internal database monthly basis. Recycling of water takes place in many ways in our factories: 1. In process to cooling water, we reuse the same water several times before discharged. 2. Some treated process waters are recycled for use as water intake such a new process water. 3. Condensate water is also recycled within the units.

The provision of fully-functioning, safely managed WASH services to all workers

(9.2.1) % of sites/facilities/operations

Select from:

☑ 100%

(9.2.2) Frequency of measurement

Select from:

☑ Continuously

(9.2.3) Method of measurement

The method of monitoring is based on “in-place” flow meters to measure volumes and water samples are collected and lab testing to guarantee potable water quality.

(9.2.4) Please explain

Klabin is working in its operations in compliance with international hygiene standards and according to Brazilian law. 100% of Klabin production units monitors by continuously basis the volume water provided for fully-functioning, safely managed WASH services. Due to environmental and water permits figures are reported by annually basis to the authorities. In addition to volume, water quality parameters are also continuously monitored to ensure that its use is 100% safe for our employees. We are committed to keep access to safe water, sanitation, and hygiene at the workplace at quality of standard for all employees in all our units.
[Fixed row]

(9.2.2) What are the total volumes of water withdrawn, discharged, and consumed across all your operations, how do they compare to the previous reporting year, and how are they forecasted to change?

Total withdrawals

(9.2.2.1) Volume (megaliters/year)

119368

(9.2.2.2) Comparison with previous reporting year

Select from:
☑ About the same

(9.2.2.3) Primary reason for comparison with previous reporting year

Select from:
☑ Increase/decrease in efficiency

(9.2.2.4) Five-year forecast

Select from:

☑ About the same

(9.2.2.5) Primary reason for forecast

Select from:

☑ Facility expansion

(9.2.2.6) Please explain

As we report last year, the Puma unit had an expansion on going (Phase I was completed with the startup of a new packaging paper machine in mid-2021, and Phase II was completed with the startup of another new packaging paper machine in mid-2023). The conclusions of the expansion processes (Phase II of PUMA unit) and implementation of operational actions to reduce the amount of water withdrawal from water resources were responsible for decrease about 2,900 megaliters in 2023. That's why, the Klabin's total water withdrawals decreased 2.38% in 2023. In addition, the proportion of water returned to the environment, in relation to the total amount of water withdrawn, was higher comparison to previous year, resulting in a more efficient water consumption and 17.10% lower in comparison with previous reporting year. Fresh surface water is vital to Klabin because this volume represents 99.6% of all water withdrawn. All volumes for each source are measured and monitored directly by Klabin, quantitative and qualitatively. Klabin also has a working group that it is working on water reduction actions which aims to identify opportunities in all Klabin's industries to reduce water withdrawals and water consumption. Even after the startup of new paper machine in Puma unit, due the phase II of its expansion, and other expansions planned in our units which already consider best practice in water use, the total water withdrawals are estimated to be increased less than 5% in the next five years. The total volume of water withdrawn is verified by a third party and the results are publicly available in our 2023 sustainability report. To Klabin, the description for ‘’comparison with previous reporting year” and “five-year forecast” thresholds: Deviation /- or equal 5% about the same; Deviation between /- 5-10% higher / lower; Deviation /- 10% much higher / lower. For our company, 'units' refers to our factories. Our answer in this line is related to all our factories.

Total discharges

(9.2.2.1) Volume (megaliters/year)

103510

(9.2.2.2) Comparison with previous reporting year

Select from:

☑ About the same

(9.2.2.3) Primary reason for comparison with previous reporting year

Select from:

☑ Increase/decrease in efficiency

(9.2.2.4) Five-year forecast

Select from:

☑ About the same

(9.2.2.5) Primary reason for forecast

Select from:

☑ Facility expansion

(9.2.2.6) Please explain

The total water discharge increased 0.35% in 2023 compared to 2022 even as Klabin's water withdrawal has decreased by 2.38%, this is a good thing because it shows that our water consumption was controlled, i.e., the proportion of water returned to the environment, in relation to the total amount of water withdrawn, was higher comparison to previous year, resulting in a more efficient water consumption and 17.10% lower in comparison with previous reporting year. All volumes for each source are sourced from direct measurements and are monitored by Klabin, quantitative and qualitatively. Puma unit has one of the largest amounts of water discharged in the Tibagi River. However, its treatment process is one of the most robust in the company. With tertiary treatment, the water discharged into the river has a much higher quality than the required environmental limits. The water withdrawals point is downstream from the water discharge point, which demonstrates our commitment with the best available practices. Even after the startup of new paper machine in Puma unit, due the phase II of its expansion, and other expansions planned in our units which already consider best practice in water use, the total water discharged are estimated to be increased by 10 to 15% in the next five years. The total volume of water discharged is verified by a third party and the results are publicly available in our 2023 sustainability report. For us, the description for ''comparison with previous reporting year" and "five-year forecast" thresholds: Deviation /- or equal 5% about the same; Deviation between /- 5-10% higher / lower; Deviation /- 10% much higher / lower. For our company, 'units' refers to our factories. Our answer in this line is related to all our factories.

Total consumption

(9.2.2.1) Volume (megaliters/year)

15858

(9.2.2.2) Comparison with previous reporting year

Select from:

☑ Much lower

(9.2.2.3) Primary reason for comparison with previous reporting year

Select from:

☑ Increase/decrease in efficiency

(9.2.2.4) Five-year forecast

Select from:

☑ Lower

(9.2.2.5) Primary reason for forecast

Select from:

☑ Facility expansion

(9.2.2.6) Please explain

Klabin's total water consumption (C) is calculated by difference between the total water withdrawals (W) and water discharge (D) water from Klabin's units (C W - D). The total consumption of water decreased 17.10% in 2023 compared to 2022. When we consider our operations located in water-stressed areas in the states of Pernambuco, Ceará, Goiás and São Paulo the water consumption was 20.72% lower in 2023 compared to 2022. This has been caused due to increase of percentual (%) water discharge has been higher than percentual (%) water withdrawal in the same period. This is a good thing because, even after conclusion of phase II in Puma unit, the actions to optimization in process implanted during the year resulted in reduction of water consumption. The water consumption volume considers: (i) the volume incorporated into products and residues; (ii) the evaporated volume; and (iii) the volume consumed by human beings. As we report in last year, in near future, we expect a reduction of water consumption due to our commitment to improving our water reuse and water use efficiency, especially in operations located in water-stressed areas. To Klabin, the description for ''comparison with previous reporting year" and "five-year forecast" thresholds: Deviation /- or equal 5% about the same; Deviation between /- 5-10% higher / lower; Deviation /- 10% much higher / lower. For our company, 'units' refers to our factories. Our answer in this line is related to all our factories.
[Fixed row]

(9.2.4) Indicate whether water is withdrawn from areas with water stress, provide the volume, how it compares with the previous reporting year, and how it is forecasted to change.

(9.2.4.1) Withdrawals are from areas with water stress

Select from:

☑ Yes

(9.2.4.2) Volume withdrawn from areas with water stress (megaliters)

910

(9.2.4.3) Comparison with previous reporting year

Select from:

☑ Much lower

(9.2.4.4) Primary reason for comparison with previous reporting year

Select from:

☑ Increase/decrease in business activity

(9.2.4.5) Five-year forecast

Select from:

☑ About the same

(9.2.4.6) Primary reason for forecast

Select from:

☑ Increase/decrease in efficiency

(9.2.4.7) % of total withdrawals that are withdrawn from areas with water stress

0.76

(9.2.4.8) Identification tool

Select all that apply

☑ WRI Aqueduct

(9.2.4.9) Please explain

Klabin units were evaluated using the WRI Aqueduct tool. Water stressed sites were defined as having a baseline water stress score of 20% or more. According WRI Aqueduct tool, baseline water stress measures the ratio of total annual water withdrawals to total available annual renewable supply, accounting for upstream consumptive use. Higher values indicate more competition among water users. All water stressed areas are measured at a minimum catchment level. No exclusions were considered. To Klabin, the description for ‘’comparison with previous reporting year” and “five-year forecast” thresholds: Deviation /- or equal 5% about the same; Deviation between /- 5-10% higher / lower; Deviation /- 10% much higher / lower. In 2018, this criterion had only one unit as being in water stressed areas: Goiana unit, located in Pernambuco/Brazil. Goiana’s withdrawals water represented 0.89% of total withdrawals water by Klabin that year. In 2019, this criterion had more two units as being classified in water stressed areas: Jundiaí DI e Jundiaí TP units, both located in the São Paulo state. In 2019, the three sites now classified as water stressed represented 1.10% of total withdrawals water by Klabin. In 2020, this criterion had more one site as being classified in water stressed areas: the new unit of Horizonte, located in the Ceará state. In 2020, the four sites classified as water stressed areas withdrawn represented 0.90% of total withdrawals water by Klabin. In 2021, this criterion had more three sites as being classified in water stressed areas: the three units were acquired from International Paper in 2020 (Franco da Rocha, Rio Verde and Suzano units). In 2021, the seven sites, all in Brazil, now classified as water stressed areas withdrawn represented 1.17% of Klabin's total withdrawals water. In 2022, there were no changes in areas classified as water stress and the seven sites represented proportion to 1.13% of Klabin's total withdrawals water. In 2023, the same seven sites represented proportion to 0.76% of Klabin's total withdrawals water, influenced, mainly, for changes in strategic planning in recycle paper units which resulted in their decrease in business activity. Therefore, in 2023, the proportion water is withdrawn from areas with water stress relation to total Klabin was much lower compared to 2022. The percentage of water withdrawn from areas with water stressed areas proportion to total withdrawals water, even that small, is very important to Klabin. All units located on water stressed areas have a representative in Klabin’s Water Management Working Group and they also have an action plan to improve the water efficiency, increase the reuse of water and get an alternative water source. To Klabin, 'units' refers to its factories. The evaluation using WRI Aqueduct tool, explained in this line, considers all Klabin factories. Considering the next five years, Klabin expect keep stable water withdrawals in units located in water stressed areas because of actions planned to increase water efficiency in its operations even if there is an increase in production.
[Fixed row]

(9.2.7) Provide total water withdrawal data by source.

Fresh surface water, including rainwater, water from wetlands, rivers, and lakes

(9.2.7.1) Relevance

Select from:

☑ Relevant

(9.2.7.2) Volume (megaliters/year)

118863

(9.2.7.3) Comparison with previous reporting year

Select from:

☑ About the same

(9.2.7.4) Primary reason for comparison with previous reporting year

Select from:

☑ Increase/decrease in efficiency

(9.2.7.5) Please explain

Fresh surface water is vital to Klabin, representing 99.6% of its total water withdrawals, sourced from rivers. Each source's volume is measured with flow meters. The fresh surface water volume decreased by 2.40% from 2022 to 2023. Last year, we reported the ongoing expansion of the Puma unit (Phase II completed with the startup of a new packaging paper machine in mid-2023). The conclusions of the PUMA unit expansion and actions to reduce water withdrawal in Klabin units led to a decrease of about 2,900 megaliters in 2023. Based on the company's strategic growth plan, a 7 to 9% increase in fresh surface water withdrawal is expected for production process development over the next five years. Nonetheless, the company plans to improve water use efficiency by implementing new technologies and actions based on market best practices. For us, a deviation of /- 5% about the same; a deviation of /- 5-10% higher/lower; a deviation /- 10% much higher/lower.

Brackish surface water/Seawater

(9.2.7.1) Relevance

Select from:

☑ Not relevant

(9.2.7.5) Please explain

No brackish surface water/seawater intake for any use. The brackish surface water is not relevant because is impossible due costs and distance. Considering possible future trends, Klabin will not consume brackish surface water/seawater.

Groundwater – renewable

(9.2.7.1) Relevance

Select from:

☑ Relevant

(9.2.7.2) Volume (megaliters/year)

301

(9.2.7.3) Comparison with previous reporting year

Select from:

☑ Much higher

(9.2.7.4) Primary reason for comparison with previous reporting year

Select from:

☑ Increase/decrease in business activity

(9.2.7.5) Please explain

Groundwater (renewable) withdrawal increased by 23.97% from 2022 to 2023. This rise is due to higher demand for packaging for food contact at the cardboard units, which requires fresh water to comply with health standards. Representatives from the Packaging Business are part of Klabin's Water Management Working Group, focusing on mapping actions to improve water use efficiency in the company. Groundwater is relevant for Klabin as around 62.34% of total groundwater withdrawals occur in water-stressed areas. This water source represents only 0.25% of all Klabin's water intake. All water volumes are directly measured through flow meters and are monitored quantitatively and qualitatively. Considering future trends, Klabin might increase groundwater (renewable) withdrawal due to the potential expansion of the Goiana unit. For us, a deviation of /- 5% about the same; a deviation of /- 5-10% higher/lower; a deviation /- 10% much higher/lower.

Groundwater – non-renewable

(9.2.7.1) Relevance

Select from:

☑ Not relevant

(9.2.7.5) Please explain

Klabin is not using non-renewable groundwater sources. The non-renewable groundwater is not relevant because this use has environmental impacts. Considering possible future trends, Klabin will not consume non-renewable groundwater

Produced/Entrained water

(9.2.7.1) Relevance

Select from:

☑ Not relevant

(9.2.7.5) Please explain

Klabin is not consume the produced water and so it is not relevant for us. Considering possible future trends, Klabin will not consume produced water

Third party sources

(9.2.7.1) Relevance

Select from:

☑ Relevant

(9.2.7.2) Volume (megaliters/year)

204

(9.2.7.3) Comparison with previous reporting year

Select from:

☑ Much lower

(9.2.7.4) Primary reason for comparison with previous reporting year

Select from:

☑ Increase/decrease in efficiency

(9.2.7.5) Please explain

Water withdrawal from third-party sources decreased by 19.31% from 2022 to 2023. Itajaí, one of the main units using third-party water, implemented operational actions to reduce water withdrawal, ontributing to the reduction in third-party water use. Although it represents only 0.17% of the total, third-party water withdrawal is very relevant to Klabin because 18.66% of these withdrawals are in water-stressed areas. Third-party water is mainly used in WASH services, but some units also use it for packaging production (e.g., Feira de Santana and Jundiaí). 100% of third-party water comes from municipal/state suppliers and is measured through flow meters. For us, a deviation of /- 5% about the same; between /- 5-10% higher/lower; deviation /- 10% much higher/lower. As reported last year, considering possible future trends, Klabin expects stability in third-party water withdrawal.
[Fixed row]

(9.2.8) Provide total water discharge data by destination.

Fresh surface water

(9.2.8.1) Relevance

Select from:
☑ Relevant

(9.2.8.2) Volume (megaliters/year)

103385

(9.2.8.3) Comparison with previous reporting year

Select from:
☑ About the same

(9.2.8.4) Primary reason for comparison with previous reporting year

Select from:
☑ Increase/decrease in efficiency

(9.2.8.5) Please explain

Fresh surface water discharge is relevant to Klabin, as 99.88% of total discharge is into fresh surface water. The volume of water discharged saw a slight reduction of 0.35% from 2022 to 2023, remaining about the same. For us, a deviation of /- 5% about the same; between /- 5-10% higher/lower; deviation /- 10% much higher/lower. All discharge volumes are directly measured through flow meters and monitored both quantitatively and qualitatively. Last year, we reported the ongoing expansion of the Puma unit (Phase II). The conclusion of this expansion, with the startup of a new packaging paper machine in mid-2023, and actions to optimized water resource use in Klabin units, resulting in a much lower water discharge reduction relation to water use reduction. Based on the company's strategic growth plan, which includes units expansions already considering best practices in water use, total fresh surface water discharge is estimated to increase by 10 to 15% in the next five years.

Brackish surface water/seawater

(9.2.8.1) Relevance

Select from:

☑ Not relevant

(9.2.8.5) Please explain

Klabin is not discharge water in seawater and so it is not relevant for us. Considering possible future trends, Klabin will not discharge in seawater.

Groundwater

(9.2.8.1) Relevance

Select from:

☑ Not relevant

(9.2.8.5) Please explain

Klabin is not discharge water in groundwater and so it is not relevant for us. Considering possible future trends, Klabin will not discharge in groundwater.

Third-party destinations

(9.2.8.1) Relevance

Select from:

☑ Relevant

(9.2.8.2) Volume (megaliters/year)

125

(9.2.8.3) Comparison with previous reporting year

Select from:

☑ Much lower

(9.2.8.4) Primary reason for comparison with previous reporting year

Select from:

☑ Increase/decrease in efficiency

(9.2.8.5) Please explain

Even it represents only 0.12% of total water discharged, in 2023, the water discharge in third party sources is relevant to Klabin because 20.54% of total water discharged in third party source are located in water stressed area. This occurs only in units near urban areas, with all third-party sources being municipal/state suppliers. Water discharge to third-party sources decreased by 38.24% in 2023 compared to 2022 due to operational changes from increased demand for food-contact packaging in units that have this water discharge source. All water volumes are measured directly with flowmeters and monitored by Klabin both quantitatively and qualitatively. To Klabin, deviation /- or equal 5% about the same; deviation between /- 5-10% higher/lower; deviation /- 10% much higher/lower. As we report last year, considering future trends, Klabin will have a stability of third party sources destination.
[Fixed row]

(9.2.9) Within your direct operations, indicate the highest level(s) to which you treat your discharge.

Tertiary treatment

(9.2.9.1) Relevance of treatment level to discharge

Select from:

☑ Relevant

(9.2.9.2) Volume (megaliters/year)

55352

(9.2.9.3) Comparison of treated volume with previous reporting year

Select from:

☑ Higher

(9.2.9.4) Primary reason for comparison with previous reporting year

Select from:

☑ Increase/decrease in efficiency

(9.2.9.5) % of your sites/facilities/operations this volume applies to

Select from:

☑ 11-20

(9.2.9.6) Please explain

The volume of water discharged with tertiary treatment is relevant to Klabin because represents more than 53% of total water discharged. 4 of 23 industrial units of Klabin have tertiary treatment: Itajaí, Jundiaí TP, Puma and São Leopoldo units. Tertiary treatment follows secondary and primary treatment. In these facilities, there are regulatory standards and requirements from Environmental Agency more restrictive than other locals. For that, Klabin has considered the tertiary treatment in these facilities. This is our rationale to select the level of treatment. The total volume of water discharged in 2022 was 50,661 megaliters. The total volume of water discharged in 2023 was 55,351 megaliters. Therefore, the volume has increased by 4,690 megaliters (equivalent to an increase of 9.26%). To Klabin, the description for ‘’comparison with previous reporting year” thresholds: Deviation /- or equal 5% about the same; Deviation between /- 5-10% higher / lower; Deviation /- 10% much higher / lower. Even after the startup of new paper machine in Puma unit, due the phase II of its expansion, and other expansions planned in our units which already consider best practice in water use, the total water discharged are estimated to be increased by 10 to 15% in the next five years.

Secondary treatment

(9.2.9.1) Relevance of treatment level to discharge

Select from:

☑ Relevant

(9.2.9.2) Volume (megaliters/year)

48030

(9.2.9.3) Comparison of treated volume with previous reporting year

Select from:

☑ Lower

(9.2.9.4) Primary reason for comparison with previous reporting year

Select from:

☑ Increase/decrease in efficiency

(9.2.9.5) % of your sites/facilities/operations this volume applies to

Select from:

☑ 61-70

(9.2.9.6) Please explain

The volume of water discharged with secondary treatment is relevant to Klabin because represents more than 46% of total water discharged. 16 of 23 industrial units of Klabin have secondary treatment: Angatuba, Betim, Correia Pinto, Feira de Santana, Franco da Rocha, Goiana, Horizonte, Jundiaí DI, Lages 1, Manaus, Manaus II, Monte Alegre, Otacílio Costa, Paulínia, Rio Verde and Suzano units. Secondary treatment follows primary treatment. In these facilities, there are regulatory standards and requirements from Environmental Agency more restrictive than other locals but not so much like the tertiary treatment. For that, Klabin has considered the secondary treatment in these facilities. This is our rationale to select the level of treatment. The total volume of water discharged in 2022 was 52,358 megaliters. The total volume of water discharged in 2023 was 48,030 megaliters. Therefore, the volume decreased by 4,328 megaliters (equivalent to an decrease of 8.27%). To Klabin, the description for ‘’comparison with previous reporting year” thresholds: Deviation /- or equal 5% about the same; Deviation between /- 5-10% higher / lower; Deviation /- 10% much higher / lower. Considering possible future trends, Klabin will have a stability of water discharged with secondary treatment.

Primary treatment only

(9.2.9.1) Relevance of treatment level to discharge

Select from:

☑ Relevant

(9.2.9.2) Volume (megaliters/year)

129

(9.2.9.3) Comparison of treated volume with previous reporting year

Select from:

☑ About the same

(9.2.9.4) Primary reason for comparison with previous reporting year

Select from:

☑ Increase/decrease in efficiency

(9.2.9.5) % of your sites/facilities/operations this volume applies to

Select from:

☑ 1-10

(9.2.9.6) Please explain

The volume of water discharged with primary treatment is relevant to Klabin because the primary treatment is the first step of treatment even so representing only 0.12% of Klabin's total water discharged. 2 of 23 industrial units of Klabin have primary treatment: Piracicaba and Rio Verde units. In these facilities, there are no restrictive regulatory standards and requirements from Environmental Agency because normally we discharge water in third party sources. For that, Klabin has considered the primary treatment in these facilities. This is our rationale to select the level of treatment. The total volume of water discharged in 2022 was 132 megaliters. The total volume of water discharged in 2023 was 129 megaliters. The volume of water discharged with primary treatment has increased by 2.71% from 2022 to 2023. To Klabin, the description for ''comparison with previous reporting year" thresholds: Deviation /- or equal 5% about the same; Deviation between /- 5-10% higher / lower; Deviation /- 10% much higher / lower. Considering possible future trends, Klabin will have a stability of water discharged with primary treatment.

Discharge to the natural environment without treatment

(9.2.9.1) Relevance of treatment level to discharge

Select from:

☑ Not relevant

(9.2.9.6) Please explain

As it is a disposal of untreated water that can have an impact on the environment, this type of treatment is relevant for Klabin. However, Klabin does not dispose of water without treatment to the environment. We had no changes between 2022 and 2023. Considering the future scenarios, Klabin will never discard of untreated water in the environment that it does not comply with current legislation.

Discharge to a third party without treatment

(9.2.9.1) Relevance of treatment level to discharge

Select from:

☑ Not relevant

(9.2.9.6) Please explain

As it is a disposal of untreated water for third parties and that can cause impacts on the environment, this type of treatment is relevant for Klabin. However, Klabin does not dispose of untreated water on third party sources. We had no changes between 2022 and 2023. Considering the future scenarios, Klabin will never discard of untreated water in the environment that it does not comply with current legislation.

Other

(9.2.9.1) Relevance of treatment level to discharge

Select from:

☑ Relevant

(9.2.9.2) Volume (megaliters/year)

0

(9.2.9.3) Comparison of treated volume with previous reporting year

Select from:

☑ About the same

(9.2.9.4) Primary reason for comparison with previous reporting year

Select from:

☑ Other, please specify :Spray drying process

(9.2.9.5) % of your sites/facilities/operations this volume applies to

Select from:

☑ 1-10

(9.2.9.6) Please explain

As it is another way to water treatment and that can cause impacts on the environment, this type of treatment (spray drying process) is relevant to Klabin. One unit of Klabin, located on Buenos Aires, Argentina, transform their wastewater in solid waste through spray drying process. That's why, this unit has not volume of water discharge. We had no changes between 2022 and 2023. Considering the future scenarios, Klabin will not expect any changes.
[Fixed row]

(9.2.10) Provide details of your organization’s emissions of nitrates, phosphates, pesticides, and other priority substances to water in the reporting year.

(9.2.10.1) Emissions to water in the reporting year (metric tons)

20.41

(9.2.10.2) Categories of substances included

Select all that apply

☑ Nitrates

☑ Phosphates

☑ Pesticides

☑ Priority substances listed under the EU Water Framework Directive

(9.2.10.3) List the specific substances included

The priority substances measured in effluents includes Benzene, Cadmium and its compounds, Lead and its compounds, 1,2-dichloroethane, Mercury and its compounds, Nickel and its compounds, Trichloromethane (chloroform). Other priority substances, such as Alachlor, Anthracene, Atrazine, Dichloromethane, Diuron, Endosulfan, Fluoranthene, Hexachlorobenzene, Pentachlorophenol, Simazine, Trichlorobenzenes, Trifluralin, Terburtyn, Heptachlor and heptachlor epoxide, are included in analysis of superficial water that receive water discharged from the processes of some units.

(9.2.10.4) Please explain

All units conduct maintenance operations involving the use of chemicals, storage of hazardous waste and chemical products, floor washing in operational areas, and sanitary activities. In the packaging process, the units also use chemicals mainly in the printing processes. In the pulp and paper process, chemicals are necessary to separate cellulose from wood and transform it into pulp. Consequently, the main processes in this sector with the potential to emit chemical pollutants include wood digestion, pulping, pulp washing, bleaching, and drying. These activities have a potential pollutants emission to water because generate effluents. Klabin ensures that all water discharged from its units is treated through Effluent Treatment Plants before being returned to the water body or concessionaire. This water is monitored both internally and by third parties to ensure comply with all legal requirements based on municipal, state, and federal norms for each unit. In the Pulp and Paper sector, with units located in the Alto Paranapanema (SP), Tibagi River (PR), and Canoas River (SC) watersheds, there is a management plan for pollutant emissions. This plan involves studies of water dispersion and self-purification to assess and determine emission limits that do not cause variations in the availability and quality of the water bodies receiving the discharged water from the production processes. Emissions to water are not nearby to vulnerable communities or within water stressed areas.
[Fixed row]

(9.3) In your direct operations and upstream value chain, what is the number of facilities where you have identified substantive water-related dependencies, impacts, risks, and opportunities?

Direct operations

(9.3.1) Identification of facilities in the value chain stage

Select from:

☑ Yes, we have assessed this value chain stage and identified facilities with water-related dependencies, impacts, risks, and opportunities

(9.3.2) Total number of facilities identified

1

(9.3.3) % of facilities in direct operations that this represents

Select from:

☑ 1-25

(9.3.4) Please explain

Klabin has a dedicated risk management area that oversees the entire organization and value chain. To identify and map climate and water-related risks and opportunities, Klabin developed specific studies considering future climate scenarios for the regions in which it operates, based on studies available in the literature and Klabin's history and records with already experienced climate events. The definition of substantive effects on the business is based on Klabin’s risk management framework and metrics - criticality analysis - which crosses impact analysis (financial, reputational, environment and health and safety) with vulnerability analysis (occurrence, internal controls and perspective of occurrence). To Klabin, substantive financial impacts are classified (BRL): 700 - critical impact; 400 150 MM

Upstream value chain

(9.3.1) Identification of facilities in the value chain stage

Select from:

☑ Yes, we have assessed this value chain stage and identified facilities with water-related dependencies, impacts, risks, and opportunities

(9.3.2) Total number of facilities identified

59

(9.3.4) Please explain

Klabin has a dedicated risk management area that oversees the entire organization and value chain. To identify and map climate and water-related risks and opportunities, Klabin developed specific studies considering future climate scenarios for the regions in which it operates, based on studies available in the literature and Klabin's history and records with already experienced climate events. The definition of substantive effects on the business is based on Klabin’s risk management framework and metrics - criticality analysis - which crosses impact analysis (financial, reputational, environment and health and safety) with vulnerability analysis (occurrence, internal controls and perspective of occurrence). Suppliers are prioritized for engagement on water issues after a socio-environmental evaluation of critical suppliers. The criteria defining a critical supplier include revenue value for Klabin (spend), representativeness in the business units (Forestry, Pulp and Paper, and Packaging), and recurrence greater than six times per year. We assess the impact of critical suppliers on water issues using their overall EcoVadis system score, generated after a socio-environmental self-assessment. Additionally, considering basin conditions and significant dependencies and impacts related to water, we use a threshold criterion if the supplier is in an area with a water stress score of 20% or more according to the WRI Aqueduct tool.
[Fixed row]

(9.3.1) For each facility referenced in 9.3, provide coordinates, water accounting data, and a comparison with the previous reporting year.

Row 1

(9.3.1.1) Facility reference number

Select from:

☑ Facility 1

(9.3.1.2) Facility name (optional)

Goiana

(9.3.1.3) Value chain stage

Select from:

☑ Direct operations

(9.3.1.4) Dependencies, impacts, risks, and/or opportunities identified at this facility

Select all that apply

☑ Dependencies

☑ Impacts

☑ Risks

☑ Opportunities

(9.3.1.5) Withdrawals or discharges in the reporting year

Select from:

☑ Yes, withdrawals and discharges

(9.3.1.7) Country/Area & River basin

Brazil

☑ Other, please specify :Goiana River Basin

(9.3.1.8) Latitude

-7.556655

(9.3.1.9) Longitude

-35.035038

(9.3.1.10) Located in area with water stress

Select from:

☑ Yes

(9.3.1.13) Total water withdrawals at this facility (megaliters)

711.83

(9.3.1.14) Comparison of total withdrawals with previous reporting year

Select from:

☑ Much lower

(9.3.1.15) Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

686.68

(9.3.1.16) Withdrawals from brackish surface water/seawater

0

(9.3.1.17) Withdrawals from groundwater - renewable

25.15

(9.3.1.18) Withdrawals from groundwater - non-renewable

0

(9.3.1.19) Withdrawals from produced/entrained water

0

(9.3.1.20) Withdrawals from third party sources

0

(9.3.1.21) Total water discharges at this facility (megaliters)

403.94

(9.3.1.22) Comparison of total discharges with previous reporting year

Select from:

☑ Much lower

(9.3.1.23) Discharges to fresh surface water

403.94

(9.3.1.24) Discharges to brackish surface water/seawater

0

(9.3.1.25) Discharges to groundwater

0

(9.3.1.26) Discharges to third party destinations

0

(9.3.1.27) Total water consumption at this facility (megaliters)

307.89

(9.3.1.28) Comparison of total consumption with previous reporting year

Select from:

☑ Much lower

(9.3.1.29) Please explain

This facility is in a water-stressed region, assessed using the WRI Aqueduct tool, which measures the ratio of total annual water withdrawals to the available renewable water supply and accounting for upstream consumptive use. In this unit, the fresh surface water from river and the groundwater are the only water intakes. For future trend, we do not expect any increase to water withdrawal. All water volumes are directly measured and monitored by Klabin, both quantitatively and qualitatively. The facility does not use brackish surface water, seawater, produced water, or non-renewable groundwater, now or in the future. To Klabin, the description for 'comparison of total consumption with previous reporting year": deviation /- or equal 5% about the same; deviation between /- 5-10% higher/lower; deviation /- 10% much higher/lower. In 2023, total water withdrawals were 711.83 megaliters, a 22.34% decrease from 2022. The total volume of water discharged was 403.94 megaliters, a 27.12% decrease compared to 2022. The water consumption was calculated using water withdrawals minus water discharges and refers to partly by volume of incorporated water into products and by volume of evaporated water. The water consumption was much lower, decreasing by 15.01%, due to the reduction in water discharged being greater than the reduction in water withdrawal. Water optimization in Goiana was achieved through actions taken during the year, monitored by Water Management Working Group.
[Add row]

(9.3.2) For the facilities in your direct operations referenced in 9.3.1, what proportion of water accounting data has been third party verified?

Water withdrawals – total volumes

(9.3.2.1) % verified

Select from:

☑ 76-100

(9.3.2.2) Verification standard used

Bureau Veritas conducted the process of independent verification of the Klabin Sustainability Report 2023 preparing process, developed in accordance with the GRI with verification process with adherence to the principles of the AA1000; and sustainability management company. In addition, we have ISO 14.000 certification standards, which represents the guarantee of sampling methods, recycling systems and a wide management.

Water withdrawals – volume by source

(9.3.2.1) % verified

Select from:

☑ 76-100

(9.3.2.2) Verification standard used

Bureau Veritas conducted the process of independent verification of the Klabin Sustainability Report 2023 preparing process, developed in accordance with the GRI with verification process with adherence to the principles of the AA1000; and sustainability management company. In addition, we have ISO 14.000 certification standards, which represents the guarantee of sampling methods, recycling systems and a wide management.

Water withdrawals – quality by standard water quality parameters

(9.3.2.1) % verified

Select from:

☑ 76-100

(9.3.2.2) Verification standard used

Bureau Veritas conducted the process of independent verification of the Klabin Sustainability Report 2023 preparing process, developed in accordance with the GRI with verification process with adherence to the principles of the AA1000; and sustainability management company. In addition, we have ISO 14.000 certification standards, which represents the guarantee of sampling methods, recycling systems and a wide management.

Water discharges – total volumes

(9.3.2.1) % verified

Select from:

☑ 76-100

(9.3.2.2) Verification standard used

Bureau Veritas conducted the process of independent verification of the Klabin Sustainability Report 2023 preparing process, developed in accordance with the GRI with verification process with adherence to the principles of the AA1000; and sustainability management company. In addition, we have ISO 14.000 certification standards, which represents the guarantee of sampling methods, recycling systems and a wide management.

Water discharges – volume by destination

(9.3.2.1) % verified

Select from:

☑ 76-100

(9.3.2.2) Verification standard used

Bureau Veritas conducted the process of independent verification of the Klabin Sustainability Report 2023 preparing process, developed in accordance with the GRI with verification process with adherence to the principles of the AA1000; and sustainability management company. In addition, we have ISO 14.000 certification standards, which represents the guarantee of sampling methods, recycling systems and a wide management.

Water discharges – volume by final treatment level

(9.3.2.1) % verified

Select from:

☑ 76-100

(9.3.2.2) Verification standard used

Bureau Veritas conducted the process of independent verification of the Klabin Sustainability Report 2023 preparing process, developed in accordance with the GRI with verification process with adherence to the principles of the AA1000; and sustainability management company. In addition, we have ISO 14.000 certification standards, which represents the guarantee of sampling methods, recycling systems and a wide management.

Water discharges – quality by standard water quality parameters

(9.3.2.1) % verified

Select from:

☑ 76-100

(9.3.2.2) Verification standard used

Bureau Veritas conducted the process of independent verification of the Klabin Sustainability Report 2023 preparing process, developed in accordance with the GRI with verification process with adherence to the principles of the AA1000; and sustainability management company. In addition, we have ISO 14.000 certification standards, which represents the guarantee of sampling methods, recycling systems and a wide management.

Water consumption – total volume

(9.3.2.1) % verified

Select from:

☑ 76-100

(9.3.2.2) Verification standard used

Bureau Veritas conducted the process of independent verification of the Klabin Sustainability Report 2023 preparing process, developed in accordance with the GRI with verification process with adherence to the principles of the AA1000; and sustainability management company. In addition, we have ISO 14.000 certification standards, which represents the guarantee of sampling methods, recycling systems and a wide management.
[Fixed row]

(9.4) Could any of your facilities reported in 9.3.1 have an impact on a requesting CDP supply chain member?

Select from:

☑ This is confidential

(9.5) Provide a figure for your organization’s total water withdrawal efficiency.

(9.5.1) Revenue (currency)

18024000000

(9.5.2) Total water withdrawal efficiency

150995.24

(9.5.3) Anticipated forward trend

With the finished of the Puma unit expansion in 2023 and considering a reduction in water withdrawals at Klabin units, we expect this number to increase because the variation in Klabin's revenue will be lower than the decrease in water withdrawals. In the next years (4 years), we expect the number continue rising due to improvements in water efficiency and water reuse, which will further reduce water withdrawals at Klabin units.
[Fixed row]

(9.12) Provide any available water intensity values for your organization’s products or services.

Row 1

(9.12.1) Product name

Pulp and Paper - Puma unit

(9.12.2) Water intensity value

28.8

(9.12.3) Numerator: Water aspect

Select from:
☑ Water withdrawn

(9.12.4) Denominator

tonne

(9.12.5) Comment

The water withdrawals per tonne of paper was 28.8 m3/tonne in 2023.
[Add row]

(9.13) Do any of your products contain substances classified as hazardous by a regulatory authority?

(9.13.1) Products contain hazardous substances

Select from:

☑ No

(9.13.2) Comment

Klabin maintains strict quality control over its products, using laboratory tests to evaluate their physical and chemical properties. 100% of the products are continually assessed based on quality and safety parameters to ensure compliance with health and safety standards applicable to our business. Furthermore, to affirm the credibility of our products, we have certified food safety processes. The ISEGA Certification ensures the quality of the paper used for packaging that comes into contact with food. The American Institute of Baking (AIB) recognition confirms the processes adopted by Klabin for producing food sacks. With the recognition of the Lages unit, Klabin is the first company in Latin America to receive AIB's recommendation. All these recognitions validate Klabin's Food Packaging Program, which ensures product integrity, sanitary conditions, and consumer health.
[Fixed row]

(9.14) Do you classify any of your current products and/or services as low water impact?

(9.14.1) Products and/or services classified as low water impact

Select from:

☑ Yes

(9.14.2) Definition used to classify low water impact

Klabin defines low water impact products are considered as having a lower water footprint than the other Klabin's products compared. We use ABNT NBR ISO 14046 standard to calculate the water footprint of Klabin's products. Klabin already calculated the water footprint from:- kraftliner paper- liquid packaging board paper- carrier

board paper- hardwood bleached pulp- softwood bleached pulp- eukaliner paper- industrial sacksWhen we compare the direct use with indirect use phases, the Klabin's impact is usually much more lower than indirect use impact.For example, kraftliner paper from Monte Alegre unit uses 2.44 cubic meters per tonne of paper (direct use) while the indirect use is 16.31 cubic meters per tonne of paper.

(9.14.4) Please explain

Klabin defines low water impact products are considered as having a lower water footprint than the other Klabin's products compared. We use ABNT NBR ISO 14046 standard to calculate the water footprint of Klabin's products.
[Fixed row]

(9.15) Do you have any water-related targets?

Select from:
☑ Yes

(9.15.1) Indicate whether you have targets relating to water pollution, water withdrawals, WASH, or other water-related categories.

	Target set in this category
Water pollution	*Select from:* ☑ Yes
Water withdrawals	*Select from:* ☑ Yes
Water, Sanitation, and Hygiene (WASH) services	*Select from:* ☑ Yes
Other	*Select from:* ☑ Yes

[Fixed row]

(9.15.2) Provide details of your water-related targets and the progress made.

Row 1

(9.15.2.1) Target reference number

Select from:
☑ Target 1

(9.15.2.2) Target coverage

Select from:
☑ Organization-wide (direct operations only)

(9.15.2.3) Category of target & Quantitative metric

Water consumption
☑ Reduction per product

(9.15.2.4) Date target was set

01/01/2020

(9.15.2.5) End date of base year

12/31/2018

(9.15.2.6) Base year figure

4.42

(9.15.2.7) End date of target year

12/31/2030

(9.15.2.8) Target year figure

3.54

(9.15.2.9) Reporting year figure

3.1

(9.15.2.10) Target status in reporting year

Select from:

☑ Achieved

(9.15.2.11) % of target achieved relative to base year

150

(9.15.2.12) Global environmental treaties/initiatives/ frameworks aligned with or supported by this target

Select all that apply

☑ Sustainable Development Goal 6

(9.15.2.13) Explain target coverage and identify any exclusions

This target coverage all Klabin industrial units.

(9.15.2.15) Actions which contributed most to achieving or maintaining this target

To maintain water consumption optimization amid expected production increases from the company's expansion, Klabin has developed several actions, including: Creation of Klabin Water Management Working Group, comprising members from all business areas aimed at oversees governance, planning, and implementing actions to reduce water usage, focused on water stress areas. Active engagement in river basin committees in regions of significant water consumption (Paraná and Santa Catarina), including participation in water resource plans and discussions on shared use and water usage fees. Involvement in the Intermunicipal Consortium of the Piracicaba, Capivari, and Jundiaí (PCJ) River Basins, a coalition of local governments and companies focused on restoring water sources within its coverage

area. Participation in these initiatives allows Klabin to collaborate with other companies and, through benchmarking, explore new solutions for reducing water consumption in industrial operations.

(9.15.2.16) Further details of target

The target for reducing water consumption by 2030 is 20%. This target of Klabin SA contributes to water security through better management of water resources and meeting the UN Sustainable Development Goal 6. In 2023, Klabin's percentage reduction in consumptive water use increased from 17.8% to 29.8% compared to the previous year, representing 150% achieved of the target.This is due to the increase of percentual (%) water discharge that has been higher than % water withdrawal in the same period. A revision of the Company's strategic planning and operations, along with the expansion of industrial activities considering more efficient water consumption processes, such as the startup of a new paperboard machine at the Puma unit, were the main factors influencing Klabin S.A.'s water consumption results. In the next years, Klabin's results will be monitored to maintain positive outcomes and achieve the goal of reducing specific water consumption by at least 20% by 2030.

Row 2

(9.15.2.1) Target reference number

Select from:

☑ Target 2

(9.15.2.2) Target coverage

Select from:

☑ Business division

(9.15.2.3) Category of target & Quantitative metric

Water pollution

☑ Reduction in concentration of pollutants

(9.15.2.4) Date target was set

01/01/2023

(9.15.2.5) End date of base year

12/31/2022

(9.15.2.6) Base year figure

0.43

(9.15.2.7) End date of target year

12/31/2025

(9.15.2.8) Target year figure

0.41

(9.15.2.9) Reporting year figure

0.42

(9.15.2.10) Target status in reporting year

Select from:

☑ Underway

(9.15.2.11) % of target achieved relative to base year

50

(9.15.2.12) Global environmental treaties/initiatives/ frameworks aligned with or supported by this target

Select all that apply

☑ Sustainable Development Goal 6

(9.15.2.13) Explain target coverage and identify any exclusions

This target covers all Klabin industrial units in the Pulp and Paper business. The target related to water pollution is set within Pulp and Paper business because its factories are responsible for 99.3% of the water discharged by Klabin and 99.5% of water discharged into surface water.

(9.15.2.14) Plan for achieving target, and progress made to the end of the reporting year

To achieve this goal, the pulp and paper units are investing in improvements to their effluent treatment plants. The PUMA unit already has tertiary treatment, which significantly contributes to reducing the concentration of pollutants in its water discharged. The other units (Monte Alegre, Angatuba, Otacílio Costa and Correia Pinto) have ongoing projects that include structural and operational improvements to their effluent treatment plants, as well as procedural improvements already implemented in their operations that contribute positively to reducing the concentration of BOD in their discharged water.

(9.15.2.16) Further details of target

This target was established in the Pulp and Paper business because its factories are responsible for 99.3% of the water discharged by Klabin and 99.5% of the water discharged into surface waters. BOD (Biochemical Oxygen Demand) was chosen due to its significance for water bodies; high oxygen demand in water can lead to the mortality of fish and other aquatic organisms, disrupting the balance of these environments and the ecosystem. Moreover, effluents from the pulp and paper sector are characterized by a high organic load, including nutrients and oxygen-demanding pollutants. The emission of these pollutants can occur through processes such as wood digestion, pulping, and pulp washing. 100% of Klabin's industrial process effluents are treated at Effluent Treatment Stations before being returned to the water body or the utility company. These treated effluents are monitored both internally and by third parties to ensure compliance with all applicable legal requirements. The minimum standards for effluent disposal are based on municipal, state, and federal legislation for each unit. To determine the maximum discharge limits, Klabin conducts studies on water dispersion and self-purification of the water body to assess and establish limits that do not alter the water's quality and volume.

Row 3

(9.15.2.1) Target reference number

Select from:

☑ Target 3

(9.15.2.2) Target coverage

Select from:

☑ Organization-wide (direct operations only)

(9.15.2.3) Category of target & Quantitative metric

Water withdrawals

☑ Reduction in withdrawals per product

(9.15.2.4) Date target was set

01/01/2020

(9.15.2.5) End date of base year

12/31/2018

(9.15.2.6) Base year figure

25.8

(9.15.2.7) End date of target year

12/31/2030

(9.15.2.8) Target year figure

20.7

(9.15.2.9) Reporting year figure

23.3

(9.15.2.10) Target status in reporting year

Select from:

☑ Underway

(9.15.2.11) % of target achieved relative to base year

49

(9.15.2.12) Global environmental treaties/initiatives/ frameworks aligned with or supported by this target

Select all that apply

☑ Sustainable Development Goal 6

(9.15.2.13) Explain target coverage and identify any exclusions

This target coverage all Klabin industrial units.

(9.15.2.14) Plan for achieving target, and progress made to the end of the reporting year

To sustain optimized water consumption while anticipating production growth from the company's expansion, Klabin has implemented various measures, including the establishment of a Water Management Working Group. This group, consisting of members from all business areas, is responsible for overseeing governance, planning, and executing initiatives to reduce water usage, particularly in areas facing water stress. In addition, since 2022, the variable remuneration of the CEO and all directors has depended on the achievement of sustainability goals, including the reduction of specific water withdrawal. In 2024, this link will extend to 100% of Klabin's employees at all levels, with 20% of variable remuneration tied to the sustainability index, which is composed of social targets (diversity and safety) and environmental targets (climate, water, forest).

(9.15.2.16) Further details of target

The internal target for reducing water withdrawal per total product by 2030 is 20%. In 2023, we reduced the water withdrawal per total product by 9.7% compared with 2018, representing 49% of the target that has already been achieved. This goal of Klabin contributes to water security through better management of water resources and supports the achievement of UN Sustainable Development Goal 6. To achieve this goal, Klabin has established a Water Management Working Group to identify opportunities for reducing water withdrawal and consumption across all its operations. Additionally, annual investments are made to support projects aimed at reducing water use. In the coming years, we expect a reduction in water withdrawal per total product due to our commitment to improving water reuse and efficiency, especially in operations located in water-stressed areas, thereby increasing the percentage of the goal achieved.

Row 4

(9.15.2.1) Target reference number

Select from:

☑ Target 4

(9.15.2.2) Target coverage

Select from:

☑ Country/area/region

(9.15.2.3) Category of target & Quantitative metric

Water, Sanitation, and Hygiene (WASH) services

☑ Increase in the proportion of local population using safely managed drinking water services around our facilities and operations

(9.15.2.4) Date target was set

01/01/2020

(9.15.2.5) End date of base year

12/31/2015

(9.15.2.6) Base year figure

49

(9.15.2.7) End date of target year

12/31/2025

(9.15.2.8) Target year figure

900

(9.15.2.9) Reporting year figure

907

(9.15.2.10) Target status in reporting year

Select from:

☑ Achieved

(9.15.2.11) % of target achieved relative to base year

101

(9.15.2.12) Global environmental treaties/initiatives/ frameworks aligned with or supported by this target

Select all that apply

☑ Sustainable Development Goal 6

(9.15.2.13) Explain target coverage and identify any exclusions

This target covers all regions influenced by the two largest Klabin industrial operations and Klabin's largest forest operation in the Tibagi River Basin.

(9.15.2.15) Actions which contributed most to achieving or maintaining this target

Currently, this program operates in 11 municipalities in Paraná and 5 in Santa Catarina. The partnership among Klabin, Apremavi, and Sebrae will continue in the coming years, enhancing the assistance provided by the 'Matas Sociais' Program and expanding it to other small and medium-sized rural properties in the region. We will define a new target to expand this program in the region influenced by Klabin operations.

(9.15.2.16) Further details of target

The Social Forests Program - Planning Sustainable Properties is an initiative conducted by Klabin, developed in partnership with Apremavi and Sebrae. This program is implemented in small and medium-sized rural properties near our operations. Our internal target is to serve 900 farm properties through the Social Forests Program by 2025. From 2015 to 2023, the program has served 907 properties in Paraná and Santa Catarina, achieving this target ahead of schedule. The objective of the program is to assist rural producers in diversifying their property's production and to support the restoration and recovery of areas of ecological interest, focusing on water resources, preservation of springs, and improving the quality of water available for these properties and downstream users. The actions developed directly contribute to increasing the availability of better-quality water, thereby improving WASH services in the region.

Row 5

(9.15.2.1) Target reference number

Select from:

☑ Target 5

(9.15.2.2) Target coverage

Select from:

☑ Suppliers

(9.15.2.3) Category of target & Quantitative metric

Supplier engagement

☑ Increase in the proportion of suppliers engaged

(9.15.2.4) Date target was set

01/01/2020

(9.15.2.5) End date of base year

12/31/2020

(9.15.2.6) Base year figure

43

(9.15.2.7) End date of target year

12/31/2030

(9.15.2.8) Target year figure

100

(9.15.2.9) Reporting year figure

83.1

(9.15.2.10) Target status in reporting year

Select from:

☑ Underway

(9.15.2.11) % of target achieved relative to base year

70

(9.15.2.12) Global environmental treaties/initiatives/ frameworks aligned with or supported by this target

Select all that apply

☑ Sustainable Development Goal 6

(9.15.2.13) Explain target coverage and identify any exclusions

The target is 100% of critical suppliers assessed by the Sustainable Supply Chain Management Program until 2030. Klabin has more than 7,000 active suppliers in its supply chain, with 473 classified as critical suppliers. The classifying critical suppliers' criteria: high value (procurement spend), representativeness in Klabin business, recurrence greater than six times in different months of the year and complexity in replacing the supply. We also consider water-related issues in supplier's classification such as water stressed area using WRI Aqueduct tool.

(9.15.2.14) Plan for achieving target, and progress made to the end of the reporting year

Every year since this target was established, critical suppliers have been evaluated using this methodology, starting with the first wave in 2019. In 2023, the fifth wave of evaluations was conducted, with 64 suppliers invited and 61 evaluated, resulting in a 95% participation rate. Critical suppliers that do not adhere to the evaluation process are analyzed by a committee formed by Technical Management, Purchasing Management directly related to the supplier, Sustainability Management, Excellence and Innovation Management in Supply Chain, Risk Management, and Integrity Management. The analysis considers aspects associated with non-substitution and productive impact (critical materials and services). On average, 13.5% of significant suppliers are evaluated each year, totaling 83.1% in 2023. Among them, all those who scored below the expected average have action plans monitored annually and receive program support for implementing the indicated improvements.

(9.15.2.16) Further details of target

Klabin uses the EcoVadis methodology to evaluate suppliers on Labor and Human Rights, Ethics, Sustainable Purchasing, and Environment. We also assess the supplier dependence on water and its impacts on water quality and availability assessed through Ecovadis system. In 2023, 83.1% suppliers were assessed. This program aims to evaluate and monitor the sustainability performance of 100% of critical suppliers by 2030. Progress is made annually, contributing to the sustainable growth of the supply chain.

Row 6

(9.15.2.1) Target reference number

Select from:

☑ Target 6

(9.15.2.2) Target coverage

Select from:

☑ Basin level

(9.15.2.3) Category of target & Quantitative metric

Watershed remediation and habitat restoration, ecosystem preservation

☑ Increase in watershed remediation and habitat restoration, ecosystem preservation activities

(9.15.2.4) Date target was set

01/01/2020

(9.15.2.5) End date of base year

12/31/2020

(9.15.2.6) Base year figure

79.7

(9.15.2.7) End date of target year

12/31/2030

(9.15.2.8) Target year figure

100

(9.15.2.9) Reporting year figure

97.3

(9.15.2.10) Target status in reporting year

Select from:

☑ Underway

(9.15.2.11) % of target achieved relative to base year

87

(9.15.2.12) Global environmental treaties/initiatives/ frameworks aligned with or supported by this target

Select all that apply

☑ Sustainable Development Goal 6

(9.15.2.13) Explain target coverage and identify any exclusions

This target coverage all Klabin forest units.

(9.15.2.14) Plan for achieving target, and progress made to the end of the reporting year

For achieving this target, it's necessary apply the hydrosolidary methodology in forest units located in São Paulo state. In these operations, the mapping of watersheds was completed in 2022, so that they can be included in the hydrological regionalization map, scheduled to be completed in 2024. This step is necessary for the expansion of the methodology in the region. The challenge is to apply the hydrosolidary methodology in fin possible new forest areas that are acquired, to comply this, Klabin updated the procedure to training all areas involved in forest areas acquisitions.

(9.15.2.16) Further details of target

The target is increase in habitat restoration, ecosystem preservation activities through implantation of hidrossolidarity management methodology in 100% of forest operations under Klabin's until 2030. Hydrosolidary management consists of a sustainable forest management method, pioneer by Klabin among its sector, which considers micro-basins as a forest operation planning unit to eliminate the trade of timber production and water production, establishing water regulation. This process starts by applying hydrological principles: forest plantations should be made in areas with natural water availability compatible with the activity; it necessary to have legal compliance regarding to permanent preservation areas and legal reserve; soil conservation practices must be contemplated; riparian areas must be respected. An analysis of water availability must also be done, with the study and delimitation of region's micro-basin, which must contain: identification of the micro-basins; points of surface water collect by company and communities and respective watersheds; medium-term harvesting blocks; harvesting plan by micro-basin. In

2023, Klabin maintained this management for 97.3% of its own forests. In this way, Klabin contributes to restoration of habitats, preservation of ecosystems and protection of micro-basins to ensure water quality and availability for communities and other stakeholders around its forestry units.
[Add row]

C10. Environmental performance - Plastics

(10.1) Do you have plastics-related targets, and if so what type?

(10.1.1) Targets in place

Select from:

☑ Yes

(10.1.2) Target type and metric

End-of-life management

☑ Reduce the proportion of plastic waste which is sent to landfill and/or incinerated

(10.1.3) Please explain

Klabin has a goal of eliminating the disposal of industrial waste in landfills by 2030. Plastic waste is one of the materials that still needs to be reused. The big challenge is to find qualified suppliers and accessible technology to recycle or reuse the material for energy.
[Fixed row]

(10.2) Indicate whether your organization engages in the following activities.

Production/commercialization of plastic polymers (including plastic converters)

(10.2.1) Activity applies

Select from:

☑ No

(10.2.2) Comment

Klabin is a forest-based company that produces products from renewable sources, such as pulp, paper, cardboard packaging and bags. We do not produce or sell plastics or plastic packaging.

Production/commercialization of durable plastic goods and/or components (including mixed materials)

(10.2.1) Activity applies

Select from:

☑ No

(10.2.2) Comment

Klabin is a forest-based company that produces products from renewable sources, such as pulp, paper, cardboard packaging and bags. Klabin does not produce or sell durable plastic goods and/or components.

Usage of durable plastics goods and/or components (including mixed materials)

(10.2.1) Activity applies

Select from:

☑ Yes

(10.2.2) Comment

Klabin uses some durable goods made from plastic, such as notebooks, mice, smartphones, etc. These durable goods are used in the company's administrative activities.

Production/commercialization of plastic packaging

(10.2.1) Activity applies

Select from:

☑ No

(10.2.2) Comment

Klabin is a forest-based company that produces products from renewable sources, such as pulp, paper, cardboard packaging and bags. We do not produce or sell plastic packaging.

Production/commercialization of goods/products packaged in plastics

(10.2.1) Activity applies

Select from:

☑ Yes

(10.2.2) Comment

Klabin is a forestry-based company that produces products from renewable sources, such as pulp, paper, cardboard packaging and bags. These products can be packaged and transported in plastic packaging, which is generally plastic stretch, film and pallets.

Provision/commercialization of services that use plastic packaging (e.g., food services)

(10.2.1) Activity applies

Select from:

☑ No

(10.2.2) Comment

Klabin is a forest-based company that produces products from renewable sources, such as pulp, paper, cardboard packaging and bags. We do not provide services that use plastic packaging.

Provision of waste management and/or water management services

(10.2.1) Activity applies

Select from:

☑ No

(10.2.2) Comment

Klabin does not provide waste management and/or water treatment services.

Provision of financial products and/or services for plastics-related activities

(10.2.1) Activity applies

Select from:

☑ No

(10.2.2) Comment

Klabin does not provide products and/or financial services for activities related to plastics. Occasionally, a company in the petrochemical sector may purchase packaging or material produced by Klabin, but it is not a product made specifically for the segment.

Other activities not specified

(10.2.1) Activity applies

Select from:

☑ No

(10.2.2) Comment

No additional comments. The answers above cover the entire scope of Klabin.
[Fixed row]

(10.4) Provide the total weight of plastic durable goods and durable components produced, sold and/or used, and indicate the raw material content.

Durable goods and durable components used

(10.4.1) Total weight during the reporting year (Metric tons)

0.34

(10.4.2) Raw material content percentages available to report

Select all that apply

☑ None

(10.4.7) Please explain

Klabin uses some durable goods made from plastic, such as notebooks, mice, smartphones, etc. These durable goods are used in the company's administrative activities. The data collected pertains to the estimated plastic content in smartphones, notebooks, and desktops purchased in 2023. The estimate of plastic content was made based on secondary data.
[Fixed row]

(10.5) Provide the total weight of plastic packaging sold and/or used and indicate the raw material content.

Plastic packaging used

(10.5.1) Total weight during the reporting year (Metric tons)

675.46

(10.5.2) Raw material content percentages available to report

Select all that apply

☑ % virgin fossil-based content

(10.5.3) % virgin fossil-based content

100

(10.5.7) Please explain

Klabin does not produce any plastic packaging. However, some products and materials manufactured in the factories are packaged in plastic films, such as stretch film.

[Fixed row]

(10.5.1) Indicate the circularity potential of the plastic packaging you sold and/or used.

Plastic packaging used

(10.5.1.1) Percentages available to report for circularity potential

Select all that apply

☑ % technically recyclable

(10.5.1.3) % of plastic packaging that is technically recyclable

100

(10.5.1.5) Please explain

Stretch plastic films are technically recyclable. However, they depend on several factors that affect the recyclability of the material, such as collection and separation, cleanliness, processing, and recycler capacity.
[Fixed row]

(10.6) Provide the total weight of waste generated by the plastic you produce, commercialize, use and/or process and indicate the end-of-life management pathways.

Production of plastic

(10.6.1) Total weight of waste generated during the reporting year (Metric tons)

0

(10.6.2) End-of-life management pathways available to report

Select all that apply

☑ Recycling

(10.6.4) % recycling

100

(10.6.12) Please explain

Klabin does not produce or sell plastic.

Commercialization of plastic

(10.6.1) Total weight of waste generated during the reporting year (Metric tons)

0

(10.6.2) End-of-life management pathways available to report

Select all that apply
☑ Recycling

(10.6.4) % recycling

100

(10.6.12) Please explain

Klabin does not produce or sell plastic.

Usage of plastic

(10.6.1) Total weight of waste generated during the reporting year (Metric tons)

2861

(10.6.2) End-of-life management pathways available to report

Select all that apply

☑ Recycling

☑ Landfill

(10.6.4) % recycling

93

(10.6.8) % landfill

9

(10.6.12) Please explain

This data includes the plastics we use in paper packaging as well as plastic packaging we use to transport our materials. The end-of-life recycling percentage was calculated based on the destination of the packaging that goes to companies and the recycling rate of paper packaging in Brazil (which includes bags with plastic coatings).
[Fixed row]

C11. Environmental performance - Biodiversity

(11.2) What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?

(11.2.1) Actions taken in the reporting period to progress your biodiversity-related commitments

Select from:

☑ Yes, we are taking actions to progress our biodiversity-related commitments

(11.2.2) Type of action taken to progress biodiversity- related commitments

Select all that apply

☑ Land/water protection

☑ Land/water management

☑ Species management

☑ Education & awareness

[Fixed row]

(11.3) Does your organization use biodiversity indicators to monitor performance across its activities?

	Does your organization use indicators to monitor biodiversity performance?	Indicators used to monitor biodiversity performance
	Select from: ☑ Yes, we use indicators	*Select all that apply* ☑ State and benefit indicators ☑ Pressure indicators

	Does your organization use indicators to monitor biodiversity performance?	Indicators used to monitor biodiversity performance
		☑ Response indicators

[Fixed row]

(11.4) Does your organization have activities located in or near to areas important for biodiversity in the reporting year?

Legally protected areas

(11.4.1) Indicate whether any of your organization's activities are located in or near to this type of area important for biodiversity

Select from:

☑ Yes

(11.4.2) Comment

Yes, as describe in next question.

UNESCO World Heritage sites

(11.4.1) Indicate whether any of your organization's activities are located in or near to this type of area important for biodiversity

Select from:

☑ Yes

(11.4.2) Comment

Yes, as describe in next question

UNESCO Man and the Biosphere Reserves

(11.4.1) Indicate whether any of your organization's activities are located in or near to this type of area important for biodiversity

Select from:

☑ Yes

(11.4.2) Comment

Yes, as describe in next question

Ramsar sites

(11.4.1) Indicate whether any of your organization's activities are located in or near to this type of area important for biodiversity

Select from:

☑ Yes

(11.4.2) Comment

Yes, areas are up to 15km from Klabin's areas, because of that it wasnt consider in the next question.

Key Biodiversity Areas

(11.4.1) Indicate whether any of your organization's activities are located in or near to this type of area important for biodiversity

Select from:

☑ Data not available

(11.4.2) Comment

Key Biodiversity Areas is not a open data for consultation.

Other areas important for biodiversity

(11.4.1) Indicate whether any of your organization's activities are located in or near to this type of area important for biodiversity

Select from:

☑ Yes

(11.4.2) Comment

Yes, Klabin consider "High Conservation Value Areas" as part of an area important for biodiversity. The company maintain those areas, monitore and conduct biodiversity projects.
[Fixed row]

(11.4.1) Provide details of your organization’s activities in the reporting year located in or near to areas important for biodiversity.

Row 1

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category Ia-III

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Angatuba Ecological Station

(11.4.1.6) Proximity

Select from:

☑ Up to 5 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial exotic species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Project design

☑ Scheduling

☑ Physical controls

☑ Operational controls

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

Indirect impacts may affect negatively biodiversity of those area close to the company area, but Klabin has procedures implemented to garantue impacts mitigation to adjacents areas, as forest fire control; responsable soil and forest manegement. The forestry operation conducted in areas near or within conservation units is carried out in a respectful, environmentally correct, and socially just manner. These operations are carefully planned and executed to ensure that all activities comply with the management plans of the conservation units. Additionally, the forestry operation is performed with strict control of environmental aspects and impacts, ensuring the preservation of biodiversity and local ecosystems. The main objective is to promote the sustainable use of natural resources while adhering to all current environmental regulations.

Row 2

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category Ia-III

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Assis Ecological Station

(11.4.1.6) Proximity

Select from:

☑ Up to 5 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial exotic species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity

(11.4.1.9) Indicate whether any of your organization's activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Project design

☑ Scheduling

☑ Physical controls

☑ Operational controls

(11.4.1.11) Explain how your organization's activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

Indirect impacts may affect negatively biodiversity of those area close to the company area, but Klabin has procedures implemented to garantue impacts mitigation to adjacents areas, as forest fire control; responsable soil and forest manegement. The forestry operation conducted in areas near or within conservation units is carried out in a respectful, environmentally correct, and socially just manner. These operations are carefully planned and executed to ensure that all activities comply with the management plans of the conservation units. Additionally, the forestry operation is performed with strict control of environmental aspects and impacts, ensuring the preservation of biodiversity and local ecosystems. The main objective is to promote the sustainable use of natural resources while adhering to all current environmental regulations.

Row 3

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category Ia-III

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Paranapanema Ecological Station

(11.4.1.6) Proximity

Select from:

☑ Up to 5 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial exotic species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Project design

☑ Scheduling

☑ Physical controls

☑ Operational controls

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

Indirect impacts may affect negatively biodiversity of those area close to the company area, but Klabin has procedures implemented to garantue impacts mitigation to adjacents areas, as forest fire control; responsable soil and forest manegement. The forestry operation conducted in areas near or within conservation units is carried out in a respectful, environmentally correct, and socially just manner. These operations are carefully planned and executed to ensure that all activities comply with the management plans of the conservation units. Additionally, the forestry operation is performed with strict control of environmental aspects and impacts, ensuring the preservation of biodiversity and local ecosystems. The main objective is to promote the sustainable use of natural resources while adhering to all current environmental regulations.

Row 4

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category Ia-III

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Santa Bárbara Ecological Station

(11.4.1.6) Proximity

Select from:

☑ Up to 5 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial exotic species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Project design

☑ Scheduling

☑ Physical controls

☑ Operational controls

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

Indirect impacts may affect negatively biodiversity of those area close to the company area, but Klabin has procedures implemented to garantue impacts mitigation to adjacents areas, as forest fire control; responsable soil and forest manegement. The forestry operation conducted in areas near or within conservation units is carried out in a respectful, environmentally correct, and socially just manner. These operations are carefully planned and executed to ensure that all activities comply with the management plans of the conservation units. Additionally, the forestry operation is performed with strict control of environmental aspects and impacts, ensuring the preservation of biodiversity and local ecosystems. The main objective is to promote the sustainable use of natural resources while adhering to all current environmental regulations.

Row 5

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category Ia-III

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Itaberá Ecological Station

(11.4.1.6) Proximity

Select from:

☑ Up to 10 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial exotic species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ No

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

No comments.

Row 6

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category Ia-III

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Carlos Rogério Conrado Schmidt Municipal Ecological Station

(11.4.1.6) Proximity

Select from:

☑ Up to 10 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial exotic species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ No

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

No comments.

Row 7

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category Ia-III

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Biodiversity State Biological Reserve

(11.4.1.6) Proximity

Select from:

☑ Up to 5 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial exotic species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity

(11.4.1.9) Indicate whether any of your organization's activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Project design

☑ Scheduling

☑ Physical controls

☑ Operational controls

(11.4.1.11) Explain how your organization's activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

Indirect impacts may affect negatively biodiversity of those area close to the company area, but Klabin has procedures implemented to garantue impacts mitigation to adjacents areas, as forest fire control; responsable soil and forest manegement. The forestry operation conducted in areas near or within conservation units is carried out in a respectful, environmentally correct, and socially just manner. These operations are carefully planned and executed to ensure that all activities comply with the management plans of the conservation units. Additionally, the forestry operation is performed with strict control of environmental aspects and impacts, ensuring the preservation of biodiversity and local ecosystems. The main objective is to promote the sustainable use of natural resources while adhering to all current environmental regulations.

Row 8

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category Ia-III

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Aguaí State Biological Reserve

(11.4.1.6) Proximity

Select from:

☑ Up to 10 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial exotic species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ No

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

No comments.

Row 9

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category Ia-III

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Birds Municipal Biological Reserve

(11.4.1.6) Proximity

Select from:

☑ Up to 5 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial exotic species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Project design

☑ Scheduling

☑ Physical controls

☑ Operational controls

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

Indirect impacts may affect negatively biodiversity of those area close to the company area, but Klabin has procedures implemented to garantue impacts mitigation to adjacents areas, as forest fire control; responsable soil and forest manegement. The forestry operation conducted in areas near or within conservation units is carried out in a respectful, environmentally correct, and socially just manner. These operations are carefully planned and executed to ensure that all activities comply with the management plans of the conservation units. Additionally, the forestry operation is performed with strict control of environmental aspects and impacts, ensuring the preservation of biodiversity and local ecosystems. The main objective is to promote the sustainable use of natural resources while adhering to all current environmental regulations.

Row 10

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

☑ UNESCO World Heritage sites

☑ UNESCO Man and the Biosphere Reserves

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category Ia-III

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Carlos Botelho State Park

(11.4.1.6) Proximity

Select from:

☑ Adjacent

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial exotic species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Project design

☑ Scheduling

☑ Physical controls

☑ Operational controls

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

Indirect impacts may affect negatively biodiversity of those area close to the company area, but Klabin has procedures implemented to garantue impacts mitigation to adjacents areas, as forest fire control; responsable soil and forest manegement. The forestry operation conducted in areas near or within conservation units is carried out in a respectful, environmentally correct, and socially just manner. These operations are carefully planned and executed to ensure that all activities comply with the management plans of the conservation units. Additionally, the forestry operation is performed with strict control of environmental aspects and impacts, ensuring the preservation of biodiversity and local ecosystems. The main objective is to promote the sustainable use of natural resources while adhering to all current environmental regulations.

Row 11

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category Ia-III

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Devil's Cave State Park

(11.4.1.6) Proximity

Select from:

☑ Up to 5 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization's activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Scheduling

☑ Physical controls

☑ Operational controls

(11.4.1.11) Explain how your organization's activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

Indirect impacts may affect negatively biodiversity of those area close to the company area, but Klabin has procedures implemented to garantue impacts mitigation to adjacents areas, as forest fire control; responsable soil and forest manegement.

Row 12

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category Ia-III

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Serra da Esperança State Park

(11.4.1.6) Proximity

Select from:

☑ Up to 5 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Scheduling

☑ Physical controls

☑ Operational controls

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

Indirect impacts may affect negatively biodiversity of those area close to the company area, but Klabin has procedures implemented to garantue impacts mitigation to adjacents areas, as forest fire control; responsable soil and forest manegement.

Row 13

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category Ia-III

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Campinhos State Park

(11.4.1.6) Proximity

Select from:

☑ Up to 10 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ No

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

No comments.

Row 14

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category Ia-III

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Espigão Alto State Park

(11.4.1.6) Proximity

Select from:

☑ Up to 5 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Scheduling

☑ Physical controls

☑ Operational controls

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

Indirect impacts may affect negatively biodiversity of those area close to the company area, but Klabin has procedures implemented to garantue impacts mitigation to adjacents areas, as forest fire control; responsable soil and forest manegement.

Row 15

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category Ia-III

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Caxambu State Park

(11.4.1.6) Proximity

Select from:

☑ Up to 10 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ No

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

No comments.

Row 16

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category Ia-III

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Guartelá State Park

(11.4.1.6) Proximity

Select from:

☑ Up to 10 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ No

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

No comments.

Row 17

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category Ia-III

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Ibitiriá State Park

(11.4.1.6) Proximity

Select from:

☑ Up to 5 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization's activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Scheduling

☑ Physical controls

☑ Operational controls

(11.4.1.11) Explain how your organization's activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

Indirect impacts may affect negatively biodiversity of those area close to the company area, but Klabin has procedures implemented to garantue impacts mitigation to adjacents areas, as forest fire control; responsable soil and forest manegement.

Row 18

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category Ia-III

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Green Cliff State Park

(11.4.1.6) Proximity

Select from:

☑ Up to 5 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Scheduling

☑ Physical controls

☑ Operational controls

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

Indirect impacts may affect negatively biodiversity of those area close to the company area, but Klabin has procedures implemented to garantue impacts mitigation to adjacents areas, as forest fire control; responsable soil and forest manegement.

Row 19

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

☑ UNESCO World Heritage sites

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category Ia-III

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Intervales State Park

(11.4.1.6) Proximity

Select from:

☑ Up to 5 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Scheduling

☑ Physical controls

☑ Operational controls

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

Indirect impacts may affect negatively biodiversity of those area close to the company area, but Klabin has procedures implemented to garantue impacts mitigation to adjacents areas, as forest fire control; responsable soil and forest manegement.

Row 20

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category Ia-III

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Alto do Ribeira Tourist State Park

(11.4.1.6) Proximity

Select from:

☑ Up to 5 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Scheduling

☑ Physical controls

☑ Operational controls

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

Indirect impacts may affect negatively biodiversity of those area close to the company area, but Klabin has procedures implemented to garantue impacts mitigation to adjacents areas, as forest fire control; responsable soil and forest manegement.

Row 21

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category Ia-III

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Códo Valley State Park

(11.4.1.6) Proximity

Select from:

☑ Adjacent

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Scheduling

☑ Physical controls

☑ Operational controls

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

Indirect impacts may affect negatively biodiversity of those area close to the company area, but Klabin has procedures implemented to garantue impacts mitigation to adjacents areas, as forest fire control; responsable soil and forest manegement.

Row 22

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category Ia-III

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Serra do Itajaí National Park

(11.4.1.6) Proximity

Select from:

☑ Up to 5 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Scheduling

☑ Physical controls

☑ Operational controls

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

Indirect impacts may affect negatively biodiversity of those area close to the company area, but Klabin has procedures implemented to garantue impacts mitigation to adjacents areas, as forest fire control; responsable soil and forest manegement.

Row 23

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category Ia-III

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Ilha Grande National Park

(11.4.1.6) Proximity

Select from:

☑ Up to 5 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Scheduling

☑ Physical controls

☑ Operational controls

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

Indirect impacts may affect negatively biodiversity of those area close to the company area, but Klabin has procedures implemented to garantue impacts mitigation to adjacents areas, as forest fire control; responsable soil and forest manegement.

Row 24

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

☑ UNESCO Man and the Biosphere Reserves

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category Ia-III

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Campos Gerais National Park

(11.4.1.6) Proximity

Select from:

☑ Overlap

(11.4.1.7) Area of overlap (hectares)

44.1

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Scheduling

☑ Physical controls

☑ Operational controls

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

Indirect impacts may affect negatively biodiversity of those area close to the company area, but Klabin has procedures implemented to garantue impacts mitigation to adjacents areas, as forest fire control; responsable soil and forest manegement.

Row 25

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category IV-VI

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Campos de Palmas Wildlife Refuge

(11.4.1.6) Proximity

Select from:

☑ Up to 5 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Scheduling

☑ Physical controls

☑ Operational controls

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

Indirect impacts may affect negatively biodiversity of those area close to the company area, but Klabin has procedures implemented to garantue impacts mitigation to adjacents areas, as forest fire control; responsable soil and forest manegement.

Row 26

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category IV-VI

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Bellatrix Private Natural Heritage Reserve

(11.4.1.6) Proximity

Select from:

☑ Up to 10 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:
☑ No

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

No comments.

Row 27

(11.4.1.2) Types of area important for biodiversity

Select all that apply
☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:
☑ Category IV-VI

(11.4.1.4) Country/area

Select from:
☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Imbuia Waterfall Private Natural Heritage Reserve

(11.4.1.6) Proximity

Select from:

☑ Up to 10 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ No

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

No comments.

Row 28

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category IV-VI

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Araponga Song Private Natural Heritage Reserve

(11.4.1.6) Proximity

Select from:

☑ Up to 5 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Scheduling

☑ Physical controls

☑ Operational controls

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

Indirect impacts may affect negatively biodiversity of those area close to the company area, but Klabin has procedures implemented to garantue impacts mitigation to adjacents areas, as forest fire control; responsable soil and forest manegement.

Row 29

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category IV-VI

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

São Miguel Farm Private Natural Heritage Reserve

(11.4.1.6) Proximity

Select from:

☑ Up to 10 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization's activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ No

(11.4.1.11) Explain how your organization's activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

No comments.

Row 30

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category IV-VI

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Rio Itajaí Rapids Private Natural Heritage Reserve

(11.4.1.6) Proximity

Select from:

☑ Up to 10 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ No

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

No comments.

Row 31

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category IV-VI

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Rio Itajaí II Rapids Private Natural Heritage Reserve

(11.4.1.6) Proximity

Select from:

☑ Up to 10 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ No

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

No comments.

Row 32

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category IV-VI

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Curucaca 1 Private Natural Heritage Reserve

(11.4.1.6) Proximity

Select from:

☑ Up to 10 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ No

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

No comments.

Row 33

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category IV-VI

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Curucaca 2 Private Natural Heritage Reserve

(11.4.1.6) Proximity

Select from:

☑ Up to 10 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ No

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

No comments.

Row 34

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category IV-VI

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Curucaca 3 Private Natural Heritage Reserve

(11.4.1.6) Proximity

Select from:

☑ Up to 10 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization's activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ No

(11.4.1.11) Explain how your organization's activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

No comments.

Row 35

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category IV-VI

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Curucaca 4 Private Natural Heritage Reserve

(11.4.1.6) Proximity

Select from:

☑ Up to 10 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ No

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

No comments.

Row 36

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category IV-VI

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Giant Araucarias Private Natural Heritage Reserve

(11.4.1.6) Proximity

Select from:

☑ Up to 10 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ No

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

No comments.

Row 37

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category IV-VI

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Emilio Einsfeld Filho Private Natural Heritage Reserve

(11.4.1.6) Proximity

Select from:

☑ Up to 5 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Scheduling

☑ Physical controls

☑ Operational controls

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

Indirect impacts may affect negatively biodiversity of those area close to the company area, but Klabin has procedures implemented to garantue impacts mitigation to adjacents areas, as forest fire control; responsable soil and forest manegement.

Row 38

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

☑ UNESCO Man and the Biosphere Reserves

☑ Other areas important for biodiversity

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category IV-VI

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Serra da Farofa Complex State Private Natural Heritage Reserve

(11.4.1.6) Proximity

Select from:

☑ Up to 10 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ No

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

No comments.

Row 39

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category IV-VI

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Cascades State Private Natural Heritage Reserve

(11.4.1.6) Proximity

Select from:

☑ Up to 5 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Scheduling

☑ Physical controls

☑ Operational controls

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

Indirect impacts may affect negatively biodiversity of those area close to the company area, but Klabin has procedures implemented to garantue impacts mitigation to adjacents areas, as forest fire control; responsable soil and forest manegement.

Row 40

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category IV-VI

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Jardim das Colinas State Private Natural Heritage Reserve

(11.4.1.6) Proximity

Select from:

☑ Up to 10 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ No

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

No comments.

Row 41

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category IV-VI

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

João Heyse Sobrinho State Private Natural Heritage Reserve

(11.4.1.6) Proximity

Select from:

☑ Up to 10 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ No

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

No comments.

Row 42

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category IV-VI

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Passo do Buraco State Private Natural Heritage Reserve

(11.4.1.6) Proximity

Select from:

☑ Up to 5 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Scheduling

☑ Physical controls

☑ Operational controls

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

Indirect impacts may affect negatively biodiversity of those area close to the company area, but Klabin has procedures implemented to garantue impacts mitigation to adjacents areas, as forest fire control; responsable soil and forest manegement.

Row 43

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category IV-VI

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Pedra Branca State Private Natural Heritage Reserve

(11.4.1.6) Proximity

Select from:

☑ Up to 10 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ No

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

No comments.

Row 44

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category IV-VI

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Barra Mansa Farm Private Natural Heritage Reserve

(11.4.1.6) Proximity

Select from:

☑ Up to 10 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ No

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

No comments.

Row 45

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category IV-VI

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Odir Zanelatto Private Natural Heritage Reserve

(11.4.1.6) Proximity

Select from:

☑ Up to 10 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization's activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ No

(11.4.1.11) Explain how your organization's activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

No comments.

Row 46

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category IV-VI

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Red-breasted Parrot Private Natural Heritage Reserve

(11.4.1.6) Proximity

Select from:

☑ Up to 10 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ No

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

No comments.

Row 47

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category IV-VI

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Altitude Parrots Private Natural Heritage Reserve

(11.4.1.6) Proximity

Select from:

☑ Up to 5 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Scheduling

☑ Physical controls

☑ Operational controls

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

Indirect impacts may affect negatively biodiversity of those area close to the company area, but Klabin has procedures implemented to garantue impacts mitigation to adjacents areas, as forest fire control; responsable soil and forest manegement.

Row 48

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category IV-VI

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Zizo Park Private Natural Heritage Reserve

(11.4.1.6) Proximity

Select from:

☑ Adjacent

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Scheduling

☑ Physical controls

☑ Operational controls

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

Indirect impacts may affect negatively biodiversity of those area close to the company area, but Klabin has procedures implemented to garantue impacts mitigation to adjacents areas, as forest fire control; responsable soil and forest manegement.

Row 49

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category IV-VI

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

(11.4.1.6) Proximity

Select from:

☑ Up to 5 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Scheduling

☑ Physical controls

☑ Operational controls

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

Indirect impacts may affect negatively biodiversity of those area close to the company area, but Klabin has procedures implemented to garantue impacts mitigation to adjacents areas, as forest fire control; responsable soil and forest manegement.

Row 50

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category IV-VI

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Mandi Shoal Private Natural Heritage Reserve

(11.4.1.6) Proximity

Select from:

☑ Up to 10 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ No

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

No comments.

Row 51

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category IV-VI

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Mandi Shoal II Private Natural Heritage Reserve

(11.4.1.6) Proximity

Select from:

☑ Up to 10 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ No

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

No comments.

Row 52

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category IV-VI

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Macuco Refuge Private Natural Heritage Reserve

(11.4.1.6) Proximity

Select from:

☑ Up to 10 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization's activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ No

(11.4.1.11) Explain how your organization's activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

No comments.

Row 53

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category IV-VI

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Serra do Lucindo Private Natural Heritage Reserve

(11.4.1.6) Proximity

Select from:

☑ Adjacent

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Scheduling

☑ Physical controls

☑ Operational controls

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

Indirect impacts may affect negatively biodiversity of those area close to the company area, but Klabin has procedures implemented to garantue impacts mitigation to adjacents areas, as forest fire control; responsable soil and forest management.

Row 54

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category IV-VI

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Rio Itajaí Taipa Private Natural Heritage Reserve

(11.4.1.6) Proximity

Select from:

☑ Up to 10 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ No

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

No comments.

Row 55

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category IV-VI

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Rio do Couro Taipa Private Natural Heritage Reserve

(11.4.1.6) Proximity

Select from:

☑ Up to 10 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ No

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

No comments.

Row 56

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category IV-VI

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Rio do Couro II Taipa Private Natural Heritage Reserve

(11.4.1.6) Proximity

Select from:

☑ Up to 10 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization's activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ No

(11.4.1.11) Explain how your organization's activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

No comments.

Row 57

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category IV-VI

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Tayná Private Natural Heritage Reserve

(11.4.1.6) Proximity

Select from:

☑ Up to 5 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Scheduling

☑ Physical controls

☑ Operational controls

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

Indirect impacts may affect negatively biodiversity of those area close to the company area, but Klabin has procedures implemented to garantue impacts mitigation to adjacents areas, as forest fire control; responsable soil and forest management.

Row 58

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category IV-VI

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Trápaga Private Natural Heritage Reserve

(11.4.1.6) Proximity

Select from:

☑ Up to 5 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Scheduling
☑ Physical controls
☑ Operational controls

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

Indirect impacts may affect negatively biodiversity of those area close to the company area, but Klabin has procedures implemented to garantue impacts mitigation to adjacents areas, as forest fire control; responsable soil and forest management.

Row 59

(11.4.1.2) Types of area important for biodiversity

Select all that apply
☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:
☑ Category IV-VI

(11.4.1.4) Country/area

Select from:
☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Stone Valley Private Natural Heritage Reserve

(11.4.1.6) Proximity

Select from:

☑ Adjacent

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Scheduling

☑ Physical controls

☑ Operational controls

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

Indirect impacts may affect negatively biodiversity of those area close to the company area, but Klabin has procedures implemented to garantue impacts mitigation to adjacents areas, as forest fire control; responsable soil and forest management.

Row 60

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category IV-VI

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Corisco Valley Private Natural Heritage Reserve

(11.4.1.6) Proximity

Select from:

☑ Adjacent

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Scheduling

☑ Physical controls

☑ Operational controls

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

Indirect impacts may affect negatively biodiversity of those area close to the company area, but Klabin has procedures implemented to garantue impacts mitigation to adjacents areas, as forest fire control; responsable soil and forest management.

Row 61

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category IV-VI

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Vilar Private Natural Heritage Reserve

(11.4.1.6) Proximity

Select from:

☑ Adjacent

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization's activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Scheduling

☑ Physical controls

☑ Operational controls

(11.4.1.11) Explain how your organization's activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

Indirect impacts may affect negatively biodiversity of those area close to the company area, but Klabin has procedures implemented to garantue impacts mitigation to adjacents areas, as forest fire control; responsable soil and forest management.

Row 62

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category IV-VI

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Corumbataí Botucatu Tejupa Environmental Protection Area

(11.4.1.6) Proximity

Select from:

☑ Overlap

(11.4.1.7) Area of overlap (hectares)

148

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Scheduling

☑ Physical controls

☑ Operational controls

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

Indirect impacts may affect negatively biodiversity of those area close to the company area, but Klabin has procedures implemented to garantue impacts mitigation to adjacents areas, as forest fire control; responsable soil and forest management.

Row 63

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category IV-VI

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Guaraqueçaba Environmental Protection Area

(11.4.1.6) Proximity

Select from:

☑ Up to 5 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization's activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Scheduling

☑ Physical controls

☑ Operational controls

(11.4.1.11) Explain how your organization's activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

Indirect impacts may affect negatively biodiversity of those area close to the company area, but Klabin has procedures implemented to garantue impacts mitigation to adjacents areas, as forest fire control; responsable soil and forest management.

Row 64

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

☑ UNESCO Man and the Biosphere Reserves

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category IV-VI

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Devonian Escarpment State Environmental Protection Area

(11.4.1.6) Proximity

Select from:

☑ Overlap

(11.4.1.7) Area of overlap (hectares)

11780

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Scheduling

☑ Physical controls

☑ Operational controls

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

Indirect impacts may affect negatively biodiversity of those area close to the company area, but Klabin has procedures implemented to garantue impacts mitigation to adjacents areas, as forest fire control; responsable soil and forest management.

Row 65

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category IV-VI

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Serra da Esperança State Environmental Protection Area

(11.4.1.6) Proximity

Select from:

☑ Overlap

(11.4.1.7) Area of overlap (hectares)

557.5

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Scheduling

☑ Physical controls

☑ Operational controls

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

Indirect impacts may affect negatively biodiversity of those area close to the company area, but Klabin has procedures implemented to garantue impacts mitigation to adjacents areas, as forest fire control; responsable soil and forest management.

Row 66

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category IV-VI

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Paraná River Islands and Floodplains Environmental Protection Area

(11.4.1.6) Proximity

Select from:

☑ Up to 5 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Scheduling

☑ Physical controls

☑ Operational controls

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

Indirect impacts may affect negatively biodiversity of those area close to the company area, but Klabin has procedures implemented to garantue impacts mitigation to adjacents areas, as forest fire control; responsable soil and forest management.

Row 67

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category IV-VI

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Middle Ribeira Quilombos Environmental Protection Area

(11.4.1.6) Proximity

Select from:

☑ Adjacent

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization's activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Scheduling

☑ Physical controls

☑ Operational controls

(11.4.1.11) Explain how your organization's activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

Indirect impacts may affect negatively biodiversity of those area close to the company area, but Klabin has procedures implemented to garantue impacts mitigation to adjacents areas, as forest fire control; responsable soil and forest management.

Row 68

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category IV-VI

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Rota do Sol Environmental Protection Area

(11.4.1.6) Proximity

Select from:

☑ Up to 5 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Scheduling

☑ Physical controls

☑ Operational controls

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

Indirect impacts may affect negatively biodiversity of those area close to the company area, but Klabin has procedures implemented to garantue impacts mitigation to adjacents areas, as forest fire control; responsable soil and forest management.

Row 69

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category IV-VI

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Serra do Mar Environmental Protection Area

(11.4.1.6) Proximity

Select from:

☑ Overlap

(11.4.1.7) Area of overlap (hectares)

215.2

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization's activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Scheduling

☑ Physical controls

☑ Operational controls

(11.4.1.11) Explain how your organization's activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

Indirect impacts may affect negatively biodiversity of those area close to the company area, but Klabin has procedures implemented to garantue impacts mitigation to adjacents areas, as forest fire control; responsable soil and forest management.

Row 70

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category IV-VI

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Canela Biodiversity Corridors Environmental Protection Area

(11.4.1.6) Proximity

Select from:

☑ Up to 5 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Scheduling

☑ Physical controls

☑ Operational controls

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

Indirect impacts may affect negatively biodiversity of those area close to the company area, but Klabin has procedures implemented to garantue impacts mitigation to adjacents areas, as forest fire control; responsable soil and forest management.

Row 71

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category IV-VI

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Marcelina Ravanello Municipal Natural Environmental Park

(11.4.1.6) Proximity

Select from:

☑ Up to 10 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ No

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

No comments.

Row 72

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category IV-VI

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Chapéu das Águas Municipal Natural Park

(11.4.1.6) Proximity

Select from:

☑ Up to 5 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Scheduling

☑ Physical controls

☑ Operational controls

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

Indirect impacts may affect negatively biodiversity of those area close to the company area, but Klabin has procedures implemented to garantue impacts mitigation to adjacents areas, as forest fire control; responsable soil and forest management.

Row 73

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category IV-VI

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Ronda Municipal Natural Park

(11.4.1.6) Proximity

Select from:

☑ Up to 10 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ No

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

No comments.

Row 74

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category IV-VI

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Dourado Municipal Natural Park

(11.4.1.6) Proximity

Select from:

☑ Up to 10 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ No

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

No comments.

Row 75

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category IV-VI

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

João José Theodoro da Costa Neto Municipal Natural Park

(11.4.1.6) Proximity

Select from:

☑ Up to 10 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization's activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ No

(11.4.1.11) Explain how your organization's activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

No comments.

Row 76

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category IV-VI

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Morro do Ouro Municipal Natural Park

(11.4.1.6) Proximity

Select from:

☑ Up to 5 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Scheduling

☑ Physical controls

☑ Operational controls

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

Indirect impacts may affect negatively biodiversity of those area close to the company area, but Klabin has procedures implemented to garantue impacts mitigation to adjacents areas, as forest fire control; responsable soil and forest management.

Row 77

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category IV-VI

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Córrego da Biquinha State Forest

(11.4.1.6) Proximity

Select from:

☑ Adjacent

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Scheduling
☑ Physical controls
☑ Operational controls

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

Indirect impacts may affect negatively biodiversity of those area close to the company area, but Klabin has procedures implemented to garantue impacts mitigation to adjacents areas, as forest fire control; responsable soil and forest management.

Row 78

(11.4.1.2) Types of area important for biodiversity

Select all that apply
☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:
☑ Category IV-VI

(11.4.1.4) Country/area

Select from:
☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Assis State Forest

(11.4.1.6) Proximity

Select from:

☑ Up to 10 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:
☑ No

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

No comments.

Row 79

(11.4.1.2) Types of area important for biodiversity

Select all that apply
☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:
☑ Category IV-VI

(11.4.1.4) Country/area

Select from:
☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Assungui National Forest

(11.4.1.6) Proximity

Select from:

☑ Adjacent

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

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Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Scheduling

☑ Physical controls

☑ Operational controls

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

Indirect impacts may affect negatively biodiversity of those area close to the company area, but Klabin has procedures implemented to garantue impacts mitigation to adjacents areas, as forest fire control; responsable soil and forest management.

Row 80

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category IV-VI

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Canela National Forest

(11.4.1.6) Proximity

Select from:

☑ Up to 10 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ No

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

No comments.

Row 81

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category IV-VI

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Ibirama National Forest

(11.4.1.6) Proximity

Select from:

☑ Up to 10 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ No

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

No comments.

Row 82

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category IV-VI

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

São Francisco de Paula National Forest

(11.4.1.6) Proximity

Select from:

☑ Up to 10 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ No

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

No comments.

Row 83

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Other areas important for biodiversity

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Socimbra HCV

(11.4.1.6) Proximity

Select from:

☑ Adjacent

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Scheduling

☑ Physical controls

☑ Operational controls

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

Indirect impacts may affect negatively biodiversity, as dispersal of invasive alien species; inadequate soil management; forest management operation; construction and maintenance of road infrastructure, although the company has all the procedures implemented to garantue no impacts, as invasive species control and habitat restoration; forest fire control; prohibition of activities such as camping, lighting fires, unauthorized visits,hunting, fishing, wood extraction; reintroduction of native species.

Row 84

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Other areas important for biodiversity

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Taboal Do Mauá HCV

(11.4.1.6) Proximity

Select from:

☑ Adjacent

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

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Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

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☑ Physical controls

☑ Operational controls

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Row 85

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Other areas important for biodiversity

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Varanal HCV

(11.4.1.6) Proximity

Select from:

☑ Adjacent

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

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(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Scheduling

☑ Physical controls

☑ Operational controls

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Row 86

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Other areas important for biodiversity

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Invernadinha HCV

(11.4.1.6) Proximity

Select from:

☑ Adjacent

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Scheduling

☑ Physical controls

☑ Operational controls

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Row 87

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Other areas important for biodiversity

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Paredão I HCV

(11.4.1.6) Proximity

Select from:

☑ Adjacent

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

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Select from:

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(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Scheduling

☑ Physical controls

☑ Operational controls

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Row 88

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Other areas important for biodiversity

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Ponte Alta do Norte HCV

(11.4.1.6) Proximity

Select from:

☑ Adjacent

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

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Select from:

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(11.4.1.10) Mitigation measures implemented within the selected area

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☑ Scheduling

☑ Physical controls

☑ Operational controls

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Row 89

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Other areas important for biodiversity

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Santa Rita-I HCV

(11.4.1.6) Proximity

Select from:

☑ Adjacent

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

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Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Scheduling

☑ Physical controls

☑ Operational controls

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Row 90

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Other areas important for biodiversity

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Capão da Lagoa HCV

(11.4.1.6) Proximity

Select from:

☑ Adjacent

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

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(11.4.1.10) Mitigation measures implemented within the selected area

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☑ Scheduling

☑ Physical controls

☑ Operational controls

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Row 91

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Other areas important for biodiversity

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Palmital do Areião HCV

(11.4.1.6) Proximity

Select from:

☑ Adjacent

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Scheduling

☑ Physical controls

☑ Operational controls

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

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Row 92

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Other areas important for biodiversity

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

Corote HCV

(11.4.1.6) Proximity

Select from:

☑ Adjacent

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

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Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Scheduling

☑ Physical controls

☑ Operational controls

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

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Row 93

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Other areas important for biodiversity

(11.4.1.4) Country/area

Select from:

☑ Brazil

(11.4.1.5) Name of the area important for biodiversity

São Miguel HCV

(11.4.1.6) Proximity

Select from:

☑ Adjacent

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Forest management activities, such as planting and harvesting of commercial species (pine and eucalyptus), maintenance and adaptation of roads. The distances were calculated by geoprocessing tools (ArcGis tools) from the nearest point of the property to the border of the area important for biodiversity.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ Yes, but mitigation measures have been implemented

(11.4.1.10) Mitigation measures implemented within the selected area

Select all that apply

☑ Scheduling

☑ Physical controls

☑ Operational controls

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

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[Add row]

C13. Further information & sign off

(13.1) Indicate if any environmental information included in your CDP response (not already reported in 7.9.1/2/3, 8.9.1/2/3/4, and 9.3.2) is verified and/or assured by a third party?

	Other environmental information included in your CDP response is verified and/or assured by a third party
	Select from: ☑ Yes

[Fixed row]

(13.1.1) Which data points within your CDP response are verified and/or assured by a third party, and which standards were used?

Row 1

(13.1.1.1) Environmental issue for which data has been verified and/or assured

Select all that apply

☑ Water

(13.1.1.2) Disclosure module and data verified and/or assured

Environmental performance – Water security

☑ All data points in module 9

☑ Water consumption– total volume

☑ Water discharges– total volumes

☑ Water discharges – volumes by destination

☑ Water intensities of products and services

☑ Water discharges – volumes by treatment method

☑ Water withdrawals– total volumes
☑ Water withdrawals – volumes by source
☑ Volume withdrawn from areas with water stress (megaliters)

(13.1.1.3) Verification/assurance standard

General standards
☑ AA1000AS

(13.1.1.4) Further details of the third-party verification/assurance process

Bureau Veritas conducted the process of independent verification of the Klabin Sustainability Report 2023 preparing process, developed in accordance with the GRI with verification process with adherence to the principles of the AA1000; and sustainability management company. In addition, we have ISO 14.000 certification standards, which represents the guarantee of sampling methods, recycling systems and a wide management.

(13.1.1.5) Attach verification/assurance evidence/report (optional)

2024 DeclaraÃ§Ã£o Painel ASG Klabin PT.pdf
[Add row]

(13.2) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

	Additional information
	No comments

[Fixed row]

(13.3) Provide the following information for the person that has signed off (approved) your CDP response.

(13.3.1) Job title

Statutory Director on board

(13.3.2) Corresponding job category

Select from:

☑ Director on board

[Fixed row]

(13.4) Please indicate your consent for CDP to share contact details with the Pacific Institute to support content for its Water Action Hub website.

Select from:

☑ No